

edmund husserl

introduction to logic and theory of knowledge

lectures 1906/07

**translated by
claire ortiz hill**

INTRODUCTION TO LOGIC
AND THEORY OF KNOWLEDGE
LECTURES 1906/07

EDMUND HUSSERL

COLLECTED WORKS

EDITOR:

ULLRICH MELLE

VOLUME XIII

INTRODUCTION TO LOGIC
AND THEORY OF KNOWLEDGE
LECTURES 1906/07

TRANSLATIONS

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EDMUND HUSSERL

INTRODUCTION TO LOGIC
AND THEORY OF KNOWLEDGE

Lectures 1906/07

TRANSLATED BY

CLAIRE ORTIZ HILL

 Springer

Library of Congress Control Number: 2008930156

ISBN 978-1-4020-6726-6 (PB)
ISBN 978-1-4020-6725-9 (HB)
ISBN 978-1-4020-6727-3 (e-Book)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springer.com

Printed on acid-free paper

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TRANSLATOR'S INTRODUCTION

Claire Ortiz Hill

The publication of all but a small, unfound, part of the complete text of the lecture course on logic and theory of knowledge that Edmund Husserl gave at Göttingen during the winter semester of 1906/07 became a reality in 1984 with the publication of *Einleitung in die Logik und Erkenntnistheorie, Vorlesungen 1906/07* edited by Ullrich Melle.¹ Published in that volume were also 27 appendices containing material selected to complement the content of the main text in significant ways. They provide valuable insight into the evolution of Husserl's thought between the *Logical Investigations* and *Ideas I* and, therefore, into the origins of phenomenology. That text and all those appendices but one are translated and published in the present volume. Omitted are only the "Personal Notes" dated September 25, 1906, November 4, 1907, and March 6, 1908, which were translated by Dallas Willard and published in his translation of Husserl's *Early Writings in the Philosophy of Logic and Mathematics*.²

Introduction to Logic and Theory of Knowledge, Lectures 1906/07 provides valuable insight into the development of the ideas fundamental to phenomenology. Besides shedding considerable light on the genesis of phenomenology, it sheds needed light on many other dimensions of Husserl's thought that have puzzled and challenged scholars. For example, this is precisely where many of the clues are to be found that are needed to answer questions of a controversial nature about seemingly enigmatic aspects of Husserl's thought, among them questions regarding the nature and evolution of his views on psychologism, meaning, analyticity, logicism, mathematics, Platonism, idealism, phenomenology, the relationship between his formal and his transcendental logic. Moreover, it provides material needed to situate and evaluate Husserl's philosophy in relation to the ideas and innovations of the most eminent and influential thinkers of his time, thinkers who often shared Husserl's concern to reform

¹ Husserl, *Einleitung in die Logik und Erkenntnistheorie* in *Husserliana XXIV* (The Hague: Martinus Nijhoff, 1984).

² Husserl, "Personal Notes", *Early Writings in the Philosophy of Logic and Mathematics*, trans. Dallas Willard (Dordrecht: Kluwer, 1994), pp. 490–500.

logic, his desire to discover secure foundations for it, mathematics, the theory of knowledge, and all of science, his intent to fight against psychologism, to develop a theory of meaning, and so on. It also provides material essential to establishing Husserl's proper place in twentieth-century philosophy of logic and mathematics, a field with deep roots in Austro-German ideas about mathematics, logic, and philosophy that flowered in English-speaking countries in the twentieth century, but into which Husserl's ideas have never been properly integrated. Given the preeminent role that philosophy of logic and mathematics played in shaping philosophy in English-speaking countries in the twentieth century, this volume also supplies material essential for the building of any possible bridge between phenomenology and analytic philosophy.

Husserl himself considered that with the lecture courses on logic and theory of knowledge that he gave at the University of Göttingen during the early years of the twentieth century he had progressed well beyond the insights of the *Logical Investigations*. He indicated this in a draft of a letter to Hans Cornelius dated September 28, 1906, where he wrote: "Unfortunately, I must time and again bewail the fact that my reflections on the meaning of phenomenology in the introduction to my *Logical Investigations* (and Investigation V) express so very inappropriately the true meaning of the investigations and their true method. My publication of the lecture courses on theory of knowledge given since 1902 will succeed in redressing the situation".³

On the cover of the manuscript of the course on general theory of knowledge that Husserl gave at Göttingen in 1902/03, he wrote that at times he felt certain that he had progressed further in the critique of knowledge than any of his predecessors and had seen more substantially and to some extent more perfectly clearly what they had barely suspected or had left in confusion.⁴ In a letter to Dietrich Mahnke of May 25, 1907, Husserl wrote that for his course of that year, he had improved upon the content of his lectures on theory of knowledge in very essential ways, had developed more fully many a thing that had

³ Appendix BVIII of the present volume.

⁴ Husserl, *Allgemeine Erkenntnistheorie, Vorlesung 1902/03*, ed. Elisabeth Schuhmann (Dordrecht: Kluwer, 2001), remarks cited p. VIII.

only been briefly indicated, and had made important additions and improvements.⁵ In *Alte und Neue Logik, Vorlesung 1908/09*, while still defending as unimpeachable what he called the dreadfully misunderstood arguments of the second volume of the *Logical Investigations* concerning the classification of the laws of the theory of forms of meanings as analytic *a priori* laws, he explained that he had come to grasp the concept of meaning better and more appropriately than he had at the time he wrote the *Logical Investigations*, the *Fourth Logical Investigation* in particular.⁶ On February 18, 1905, he had written to Heinrich Gomperz that the methodological and theoretical issues making up the main content of his Göttingen courses had been presented in an incomparably clearer manner in them than in the *Logical Investigations*,⁷ a fact about which scholars familiar with the content of those courses are in total agreement.

It was during those early years of the twentieth century that Husserl developed the phenomenological method, the ins and outs of which already make up a large portion of his 1902/03 course on general theory of knowledge. In the letter of 1905 to Gomperz just cited, Husserl expressed his firm conviction that the phenomenological method was the true method of critique of knowledge. He said that he saw his life's goal as being to solve the main problems of critique of knowledge one after the other by means of it and was working on that continually year after year.⁸ In personal notes of September 1906, Husserl confided that the general problem that he believed that he had to solve if he were to be able to call himself a philosopher was "*A critique of reason*, a critique of logical and practical reason, of normative reason in general". He even wrote that he believed that unless he attained clarity regarding "the general outlines of the sense, essence, methods and main points of a critique of reason, without having thought out, outlined, formulated and justified a general sketch of such a critique" he could not "live truly and sincerely".⁹

⁵ Ibid., letter cited p. X.

⁶ Husserl, *Alte und neue Logik, Vorlesung 1908/09*, pp. 57, 249. The noematic concept of meaning is introduced in *Vorlesungen über Bedeutungslehre, Sommersemester 1908 (Hua XXVI)*, ed. Ursula Panzer (Dordrecht: Martinus Nijhoff, 1987).

⁷ Ibid., letter cited p. IX.

⁸ Ibid.

⁹ Husserl, "Personal Notes", pp. 493–494.

As Ullrich Melle points out in his introduction to *Einleitung in die Logik und Erkenntnistheorie, Vorlesungen 1906/07*, Husserl's course fell exactly midway between the publication of the *Logical Investigations* in 1900–1901 and *Ideas I* in 1913. Melle presents the course as being to a large extent a summation and consolidation of Husserl's logico-scientific, epistemological, and epistemo-phenomenological investigations of the preceding years and as representing an important step in the journey from descriptivo-psychological elucidation of pure logic in the *Logical Investigations* to the transcendental phenomenology of the absolute consciousness of the objective correlates constituting themselves in its acts in *Ideas I*.¹⁰ Melle considers that without a doubt the course represented an attempt to present and publish the extensive findings of Husserl's investigations from the years following the publication of the *Logical Investigations* under the heading of a critique of theoretical reason.¹¹

In his introduction, Melle describes the philosophical straits in which Husserl found himself upon the completion of the *Logical Investigations*. The proper determination of the relationship between theory of knowledge and psychology, Melle explains, is decisive for reaching or failing to reach epistemological goals. Shortly after the publication of the *Logical Investigations*, it had already become clear to Husserl that he had not succeeded in proving that the alleged contradiction between the refutation of psychologism in the *Prolegomena to Pure Logic*, the first volume of the *Logical Investigations*, and the epistemological elucidation of pure logic by recourse to subjective acts in the six *Logical Investigations* was only apparent. He had also come to see the misunderstandings about a blatant contradiction existing between the two parts of his work as having been additionally fostered by the unfortunate decision on his part to speak of phenomenology as descriptive psychology.¹²

In his early Göttingen courses,¹³ Husserl defined theory of knowledge as the investigation of the thorny problems involving the relationship

¹⁰ Husserl, *Einleitung in die Logik und Erkenntnistheorie*, p. XIX.

¹¹ *Ibid.*, p. XVI.

¹² *Ibid.*, pp. XXXII–XXXIII.

¹³ Unless otherwise indicated, these generalizations about Husserl's Göttingen courses are drawn from the reading of his *Allgemeine Erkenntnistheorie, Vorlesung 1902/03* and *Logik, Vorlesung 1902/03*, ed. Elisabeth Schuhmann (Dordrecht: Kluwer, 2001).

of the subjectivity of the knower to the objectivity of what is known. He was intent upon teaching his students to separate different layers of philosophical issues that had obscured theory of knowledge's proper relationship to other disciplines. He taught them to liberate themselves from the damage wrought by psychologism and to loose theory of knowledge from both it and metaphysical presuppositions. He drew their attention to the ties that he saw linking the theory of knowledge to its complement, pure, formal, analytic logic and introduced them to his own very Bolzanian alternative. This period of his thought bears the unmistakable imprint of Bolzano's *Wissenschaftslehre*. In his logic course of 1896, Husserl explicitly told his students that more was to be learned about the descriptive laying of the foundations of formal logic from Bolzano's book than from all other past and recent logical work combined.¹⁴

In these courses, Husserl taught that objectivity of thinking was grounded in purely logical forms. Pure logic, he told students, was the science of concepts and relations of concepts, of propositions and relations of propositions, of the possible forms grounded in these concepts and propositions. It defines the form concepts to which the objective content of all logical and all scientific thinking in general is subject and on whose basis they develop the laws of validity grounded in these form concepts. Science, in the objective sense, is a web of theories, and so of proofs, propositions, inferences, concepts, meanings, not of experiences.

The whole of arithmetic, Husserl taught, belonged within the scope of a sufficiently broadly understood logic. He defended the view that he repeatedly attributed to Gottlob Frege's teacher Hermann Lotze that pure arithmetic is basically no more than a branch of logic that had developed very early through independent treatment. He bid his students not to be "scared" "*Ich bitte Sie nicht zu erschrecken!*" by that idea and to grow accustomed to the initially strange idea of Lotze that arithmetic is only a relatively independent, and from time immemorial, particularly highly developed piece of logic.¹⁵ Purely

¹⁴ Edmund Husserl, *Logik, Vorlesung 1896*, ed. Elisabeth Schuhmann (Dordrecht: Kluwer, 2001), p. 96.

¹⁵ Husserl, *Logik, Vorlesung 1896*, pp. 241, 271–272; Husserl, *Logik, Vorlesung 1902/03*, pp. 19, 34; Husserl, *Einleitung in die Logik und Erkenntnistheorie*, p. 56.

arithmetical theories, all purely mathematical theories, the theory of syllogism, he stressed, are purely logical because their basic concepts express reasoning forms that are free of any cognitive content and cannot be had through sensory abstraction. No epistemological reflection is required. That pure logic does not merely consist of trivialities is already shown by pure mathematics.

These were years that found Husserl pursuing his interest in axiomatization and the theory of the manifolds. On the basis of the axioms of pure arithmetic, he taught, the theorems of the discipline were derived by pure deduction following systematic, simple procedures. The field then branched out into more and more theories and partial disciplines, ever new problems surfaced and were finally solved by expending the greatest mathematical acumen and following the most rigorous methods.¹⁶

Husserl found nothing extraordinary about the idea of calculating with concepts and propositions. He even detailed his axioms, notation, rules of inference for so doing. It is worth noting in this regard that, like his contemporaries in Germany, he used Peirce's symbols for the universal and existential quantifiers π , Σ , which, unlike Frege's, were widely used.¹⁷

Such considerations went into the making of the first section of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, where Husserl told students of how he had come to detect a certain natural order in formal logic and to broaden its domain to include two layers above the traditional formal logic of subject and predicate propositions and states of affairs that deals with what might be stated about objects in general from a possible perspective. In the second layer, it was no longer a question of objects as such about which one might predicate something, but of investigating what was valid for higher-order objects dealt with in an indeterminate, general way, not as empirical or material entities, but determined in purely formal terms, removed from acts, subjects, or empirical persons of actual reality. It was a matter of an expanded, completely developed analytics where one reasoned deductively with concepts and propositions in

¹⁶Husserl, *Logik, Vorlesung 1896*, p. 39.

¹⁷Husserl, *Logik, Vorlesung 1902/03*, pp. 231, 239–249; Husserl, *Logik, Vorlesung 1896*, pp. 272–273.

a purely formal manner since each concept was analytic and each procedure purely logical.

According to this theory, the third and highest layer of formal logic was that of the science of deductive systems in general, the theory of manifolds, theory forms, logical molds totally undetermined as to their content and not bound to any possible concrete interpretation. There it was a matter of theorizing about possible fields of knowledge conceived of in a general, undetermined way, simply determined by the fact that the objects stand in certain relations that are themselves subject to certain fundamental laws of such and such determined form, are exclusively determined by the form of the interconnections assigned to them that are themselves just as little determined in terms of content as are the objects. This science of forms of possible theories was a field of free, creative investigation made possible once form was emancipated from content. Once it had been discovered that deductions and sequences of deductions continued to be meaningful and remained valid when another meaning was assigned to the symbols, people were free to reason completely on the level of pure forms. They could vary systems in different ways. Ways of constructing an infinite variety of forms of possible disciplines could be found.

Husserl considered the detection of these three levels of formal logic to be of the greatest importance for the understanding of logic and philosophy. In teaching in the *Introduction to Logic and Theory of Knowledge, Lectures 1906/07* that the purely logical disciplines rising above the logic of subjects and predicates were characterized by the fact that they study higher-order objects grounded in the essence of directly logical forms, Husserl told his listeners that he considered that what he was teaching had benefited from the essential progress that he had made since he wrote the *Prolegomena to Pure Logic*, the first volume of his *Logical Investigations*.¹⁸

However, for Husserl, all questions concerning the relationship between objectivity and subjectivity were ultimately to be answered by going back to the sources from which logical ideas originate. So, once he had exposed the objective theoretical scaffolding that he had

¹⁸ See §15 of the present book. Husserl expressed himself in the same manner in a letter to Paul Natorp cited in, *Alte und neue Logik, Vorlesung 1908/09*, ed. Elisabeth Schuhmann (Dordrecht: Kluwer, 2003), p. IX.

found was necessary to keep philosophers from falling into the quagmires of psychologism and skepticism, he was free to set out once again on his voyage of discovery of the world of the intentional consciousness and to introduce the phenomenological analyses of knowledge that were to yield the general concepts of knowledge needed to solve the most recalcitrant problems of theory of knowledge.

So it is that Husserl turns to the subjective side of science in the second section of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, which Melle characterizes as a sketch of the actual carrying out of the phenomenology of reason that comes very close to being the thinking out, outlining, formulating, and justifying of the general sketch of the critique of reason whose importance for Husserl was underscored by him in the personal notes of September 1906 cited above.¹⁹

As Melle explains, in the first section of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, Husserl dealt with the objective side of science as a system of propositions relating to states of affairs, but he realized that science also has a subjective side in the form of empirical acts and acts of thinking in which scientific theories are put forward and substantiated and that the justifiability of any scientific statement must be proven in such acts of observation and substantiation. What is more, Husserl now stressed that the investigation of these subjective sources of justification concerned all sciences in a similar manner, for even the formal and mathematical disciplines appeal to subjective experience and apodictic evidentness for justification.²⁰

Following the arguments of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, Melle reasons, one can see the above-mentioned contradiction between the refutation of psychologism in the *Prolegomena* and of the epistemological elucidation of pure logic by recourse to subjective acts in the six *Logical Investigations* as the expression of an as yet unresolved antinomy. Theory of knowledge with and on the basis of psychology is impossible. It leads to the abandonment of all ideal validity and to absurd skepticism. If it draws subjectivity

¹⁹Husserl, *Einleitung in die Logik und Erkenntnistheorie*, p. XVI; Husserl's "Personal Notes", pp. 493–494.

²⁰Husserl, *Einleitung in die Logik und Erkenntnistheorie*, p. XXX.

and subjective acts into the investigation, theory of knowledge must be psychology.²¹ So Husserl labored to develop techniques for resolving the antinomy of which he (not to mention Frege) was so painfully aware. Melle identifies Husserl's search for a solution to this antinomy as being the fundamental driving force determining the evolution of Husserl's logical and epistemological thinking between the *Logical Investigations* in 1900/01 and *Ideas I* in 1913.²²

In *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, Melle points out, Husserl made explicit use of the method of phenomenological reduction to bracket out all natural objectivities indubitably and unquestionably extending beyond what was given and thereby to demonstrate the possibility of a non-psychological investigation of subjectivity and its acts, to avoid the absurd consequences of psychologism, and to establish a radical, presuppositionless theory of knowledge and phenomenology that could ultimately elucidate all knowledge. With the world of phenomena, Husserl considered, phenomenological reduction opens up its own field of scientific investigation to us; in phenomenology as the science of phenomena all epistemological problems are then solvable.²³

Chapter 6 of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, opens with Husserl's announcement that a new field of possible scientific investigation has now indeed been opened up to us, a new, phenomenological objectivity, a new science, therefore, phenomenology. In §36, he describes phenomenology as universal science of pure consciousness. For him, it "is the truly immanent philosophy in contrast to the immanent positivist philosophies that speak of immanence and the need to circumscribe immanence, but do not understand genuine immanence and the phenomenological reduction that yields it. It has the task of analyzing pure phenomena, insofar as this is in general within reach, of setting up the categories of their elements and of the forms of their relations and the accompanying laws of essence".

In Appendix BV (dated 1908 by Melle) of the present volume, we find Husserl writing on the development of a transcendental phenomenology as the genuine realization of what had only been realized

²¹ Ibid., p. XXXII.

²² Ibid.

²³ Ibid., p. XXXV.

in fragmentary form in the *Logical Investigations*. He regrets that in that work phenomenology had passed as descriptive psychology. He explains that he had since come to realize that descriptive psychology, understood as empirical phenomenology, had to be seen as distinct from transcendental phenomenology. Since descriptive natural science is description of concrete natural objects, natural processes, and so on, descriptive psychology is, therefore, not limited merely to psychological experiences, and their content to the content of kinds of actual consciousness-processes of experiencing human beings and animals, but also includes a descriptive, experiential description of associating types, of temperaments, characters, etc. What he had called descriptive psychological phenomenology in the *Logical Investigations*, however, concerned just the sphere of experiences in terms of their real (*reellen*) content. Inasmuch as empirically related to natural objectivities, the experiences were experiences of an experiencing I. For epistemological phenomenology, for an essence-theory of knowledge (*a priori*), the empirical relationship had, however, to be eliminated.

* * *

Part of the philosophical task is to adjust one's thinking, be it temporarily, to that of philosophers who expressed their ideas in different times, different languages, from within different philosophical traditions. All philosophical writing has its special terminology and philosophers are always obliged to accustom themselves to the terminology and style adopted in philosophical works if they are ever to enter into the ideas expressed there.

Moreover, every translation has its share of recalcitrant terms that frustrate efforts to capture their author's true meaning. For example, readers of German philosophical writings translated into English are always obliged to keep in mind that the English word 'science' and the various words derived from it are far narrower in meaning than the German word for science, '*Wissenschaft*', and the words that are derived from it are. It always helps to keep in mind that these words contain the little word '*Wissen*', meaning knowledge. Likewise, it is good for readers of English to keep in mind that for many of Husserl's contemporaries *Erscheinungen* (appearances) were *Phänomene* (phenomena).

Of course, Husserl's writings present their share of challenges to readers and translators. It is fortunate, though, that *Introduction to Logic*

and *Theory of Knowledge, Lectures 1906/07* appears at a time when philosophers in English-speaking countries have heartily embraced the thoughts of Husserl's German contemporary Gottlob Frege and his concerns, among which may be cited: anti-psychologism, meaning, the foundations of mathematics, logic, science, and knowledge, his questions about sets and classes, intensions, identity, calculating with concepts, perspicuity, and even his idealism—all of which he shared with Husserl. Indeed, *Introduction to Logic and Theory of Knowledge, Lectures 1906/07* is rife with insights into matters that many philosophers have now been primed to appreciate out of enthusiasm for Frege's ideas.

For example, the following passage from Frege's "The Thought: A Logical Inquiry" of 1918–1919 addresses one of the most central concerns of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*:

The word 'true' indicates the aim of logic as does 'beautiful' that of aesthetics or 'good' that of ethics. All sciences have truth as their goal; but logic is also concerned with it in a quite different way from this. ... To discover truths is the task of all sciences; it falls to logic to discern the laws of truth. The word 'law' is used in two senses. When we speak of laws of morals or the state we mean regulations which ought to be obeyed but with which actual happenings are not always in conformity. Laws of nature are the generalization of natural occurrences with which the occurrence are always in accordance. It is rather in this sense that I speak of laws of truth. That is, to be sure, not a matter of what happens so much as of what is. Rules for asserting, thinking, judging, inferring, follow from the laws of truth. And thus one can very well speak of laws of thought too. But there is an imminent danger here of mixing different things up. Perhaps the expression 'law of thought' is interpreted by analogy with 'law of nature' and the generalization of thinking as a mental occurrence is meant by it. A law of thought in this sense would be a psychological law. And so one might come to believe that logic deals with the mental process of thinking and the psychological laws in accordance with which it takes place. This would be a misunderstanding of the task of logic, for truth has not been given the place which is its due here (pp. 507–508).²⁴

Both Husserl and Frege fought their way through a terminological jungle and at times made similar choices of terminology. For example, in *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*,

²⁴ Gottlob Frege, "The Thought: A Logical Inquiry". This essay has been published numerous times. I am citing the translation that appears in *Essays on Frege*, ed. E. D. Klemke (Urbana: University of Illinois Press), pp. 507–508. "Der Gedanke, eine logische Untersuchung" was first published in *Beiträge zur Philosophie des Deutschen Idealismus* 2, 1918–1919, pp. 58–77.

Husserl significantly makes generous use of variations on words like ‘*auffassen*’, ‘*erfassen*’, ‘*befassen*’, ‘*umfassen*’ that contain the verb ‘*fassen*’, which means, to grasp, to lay hold of, to apprehend, to understand.

In his essay “Frege as Philosopher”, Husserl scholar Paul Linke argued that Frege knew that it is by no means true that what is logical has nothing to do with mental phenomena and with psychology and discovered independently that the prerequisite of any logical behavior is intentionality, the psychological possibility of being directed towards something extramental, and also towards something not presently mental. According to Linke, Frege used the good graphic term ‘*Ergreifen*’ and later, ‘*Fassen*’ to designate this. What Franz Brentano meant by simply ‘being directed toward’, the ‘intending of’ something, Linke contended, is what Frege meant by laying hold of and grasping.²⁵

A look at the passages of Frege’s writings that Linke cites helps set into perspective Husserl’s struggle with what Melle described as the “antinomy” that determined the evolution of Husserl’s logical and epistemological thinking between the *Logical Investigations* and *Ideas I*. In the case of ‘*Ergreifen*’, Linke cites the passage of the introduction to the *Basic Laws of Arithmetic I* of 1893 in which Frege wrote:

If we want to emerge from the subjective at all, we must conceive (*auffassen*) of knowledge as an activity that does not create what is known but grasps (*ergreift*) what is already there. The picture of grasping (*Ergreifen*) is very well suited to elucidate the matter. If I grasp (*ergreife*) a pencil, many different events take place in my body. ... But the totality of these events neither is the pencil nor creates the pencil; the pencil exists independently of them. And it is essential for grasping (*Ergreifen*) that something be there which is grasped (*ergriffen wird*); the internal changes alone are not the grasping (*Ergreifen*). In the same way, that which we grasp (*erfassen*) with the mind also exists independently of this activity.²⁶

In the case of ‘*Fassen*’, Linke cites the passage of “The Thought: A Logical Inquiry” in which Frege wrote:

²⁵ Paul Linke, “Frege as Philosopher”, trans. and introduction by Claire Ortiz Hill, *The Brentano Puzzle*, ed. Roberto Poli (Aldershot: Ashgate, 1998), p. 69. Linke’s essay was first published as “Gottlob Frege als Philosoph”, *Zeitschrift für Philosophische Forschung*, vol. 6, 1947, pp. 75–99.

²⁶ Gottlob Frege, *Basic Laws of Arithmetic I*, translated and edited by Montgomery Furth (Berkeley: University of California Press, 1964), p. 23. First published as *Grundgesetze der Arithmetik I* (Jena: Hermann Pohle, 1893), p. XXIV.

We do not have a thought as we have, say, a sense-impression, but we also do not see a thought as we see, say, a star. So it is advisable to choose a special expression and the word ‘apprehend’ (*fassen*) offers itself for the purpose. A particular mental capacity, the power of thought, must correspond to the apprehension (*Fassen*) of thought. In thinking we do not produce thoughts but we apprehend (*fassen*) them. For what I have called thought stands in the closest relation to truth. ... How does a thought act? By being apprehended (*gefasst*) and taken to be true. This is a process in the inner world of a thinker which can have further consequences in this inner world and which, encroaching on the sphere of the will, can also make itself noticeable in the outer world. If, for example, I grasp (*fasse*) the thought which we express by the theorem of Pythagoras, the consequence may be that I recognize it to be true and, further that I apply it, making a decision (*einen Beschluss fassend*) which brings about the acceleration of masses. Thus our actions are usually prepared by thinking a judgment. And so thought can have an indirect influence on the motion of masses. The influence of one person on another is brought about for the most part by thoughts. ... When a thought is apprehended (*gefasst wird*), it at first only brings about changes in the inner world of the apprehender (*Fassenden*), yet it remains untouched in its true essence.²⁷

I have usually chosen to translate Husserl’s widespread use of ‘*auffassen*’ by ‘to apprehend’, ‘*Auffassung*’ by ‘apprehending’. It is worth noting, however, that in Husserl’s time German translators of the writings of the British empiricists tellingly commonly translated ‘to perceive’ and ‘perception’ by ‘*auffassen*’ and ‘*Auffassung*’.

In §15 of the *First Logical Investigation*, Husserl noted how in the absence of fixed terminological landmarks, concepts run confusedly together and fundamental confusions arise, and he went on to defend his decision to use “sense” and “meaning” as synonyms in the following way:

It is agreeable to have parallel, interchangeable terms in the case of this concept, particularly since the sense of the term “meaning” is itself to be investigated. A further consideration is our ingrained tendency to use the two words as synonymous, a circumstance which makes it seem rather a dubious step if their meanings are differentiated, and if (as G. Frege has proposed) we use one for meaning in our sense, and the other for the objects expressed. To this we may add that both terms are exposed to the same equivocations, which we distinguished above in connection with the term ‘expression’, and to many more besides, and that this is so both in scientific and in ordinary speech.

²⁷Frege, “The Thought: A Logical Inquiry”, pp. 530, 534–535.

Husserl in fact made liberal use of synonyms. In particular, attentive readers will find a liberal shifting back and forth between synonyms of Germanic derivation and those of Latin derivation. Illustrative of this would be Husserl's use of '*Wesen*' and '*Essenz*'. For example, in §47, he says, "In weiterer Folge, heißt jedes Allgemeine objectiv genommen ein *Wesen*, eine *Essenz*".²⁸ In Appendix BIII, he writes, "Ich meinte nun, eine Wesenlehre von dem Bewußtsein sei möglich. Wesen gleich *Essenz*".²⁹ Thus we find him interchanging '*rein*' and '*pur*', '*Unabhängigkeit*' and '*Independenz*', '*Anschaung*' and '*Intuition*', '*Aufmerksamkeit*' and '*Attention*', to name but a few examples.

Fortunately, Husserl himself provided explicit, clear explanations of many of the most problematic terms that he used. For example, logicians nowadays do not ordinarily speak of apophantic logic, but the puzzlement that readers may feel upon encountering the term is allayed when Husserl explains in §18a of these lectures that it comes from the Aristotelian word '*ἀπόφανσις*', meaning proposition, and that by 'apophantic logic' is meant "the totality of laws of essence pertaining to the idea of *apophansis*, therefore, of proposition".

Likewise, the word 'noetics' would be an unfamiliar word to some. In §27 of these lectures, Husserl explicitly equates it with "a theory of norms of knowledge". By this, he hastens to add, he does not mean "a practical art of judging the legitimacy claims of alleged knowledge", but "a science that investigates cognitive acts (i.e., intellective position-takings by their nature making claims to legitimacy) one after the other out of pure scientific interest and evaluates the relationships of legitimacy belonging to them, both in isolation and in combination and based on one another".

Melle draws attention to the fact that Husserl saw the need to advance from a superficial, externally morphological noetics (whose task it is to show the various kinds of evidentness and the formal, ideal conditions upon which they depend) to a deep internally analyzing noetics that strives for ultimate insight that would elucidate the consciousness of objectivity, i.e., make the relationship of thought acts to objectivity by means of ideal meanings definitively understandable. This ultimately elucidating noetics is nothing other than the actual carrying out of

²⁸ Husserl, *Einleitung in die Logik und Erkenntnistheorie*, p. 295.

²⁹ *Ibid.*, p. 411.

critique of knowledge by means of which the fundamental problem of theory of knowledge regarding how objective being can be conscious and known in subjectivity finds its definitive solution.³⁰

In his course on general theory of knowledge of 1902/03, Husserl explained what he meant by '*Evidenz*', a word that does not have a satisfactory equivalent in English and is customarily translated by 'self-evidence'. He explained to his students how in the past and occasionally still in recent times, *Evidenz* was described as an illuminating light. It was the *lumen naturale* of reason as compared to the *lumen supranaturale* of religious faith. However, Husserl did not consider the metaphor of light to be very appropriate. A light, he explained, makes visible what was not visible, but *Evidenz* does not make something visible; it is seeing itself. Only, it is seeing in the most authentic, strictest sense that really sees what was seen and sees it precisely as what is presumed in the seeing. Husserl considered this only to be possible when seeing was really (*reell*) one with what was seen and when seeing was simply of the nature of a mere attending having what was simply there in the same act of consciousness.³¹

In §30e of *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*, Husserl asks what *Evidenz* is and answers that it is nothing other than the quality of givenness understood in a comprehensive enough way and not just limited to the being of individual real things. If we come to an understanding of that correlation of consciousness and object that concerns all, even dreaming, hallucinatory, erring consciousness, and then we ask how we can come by the existence of any object in itself at all then we face, Husserl maintains, the problem of *Evidenz*, or what amounts to the same thing, the problem of givenness. Husserl sees these as being closely interrelated questions about how we know that any object at all exists in reality, where and when an object is truly given to us, or how we know that an object is given and what it means for an object to be given to us. '*Evidenz*', Husserl continues his explanation in §30e, "is a word for the fact that, as noeticians affirm and prove, there is a difference between acts that not only think that something is thus and thus, but are fully certain and

³⁰ Ibid., p. XXXI.

³¹ Husserl, *Allgemeine Erkenntnistheorie, Vorlesung 1902/03*, pp. 95–96.

aware, in the manner of perspicacious seeing, of this being and being thus. Therefore, the thing, the state of affairs is given in insight”.

It is helpful at times to turn to etymology for elucidation. For example, sight and seeing play a preeminent role in *Introduction to Logic and Theory of Knowledge, Lectures 1906/07*. The word ‘*Einsicht*’ is translated by ‘insight’ and ‘*einsichtsvoll*’, by ‘insightful’. For ‘*einsichtig*’, however, I turned to ‘perspicacious’ or ‘perspicuous’ and for ‘*Einsichtigkeit*’ to ‘perspicacity’ or ‘perspicuity’. According to *The Random House College Dictionary*, originally a word for “sharpness of sight”, ‘perspicacity’ “refers to the power of seeing clearly, to clearness of insight or judgment”, to “keenness of mental perception, discernment, penetration”, while ‘perspicuity’ “refers to that which can be seen through, i.e., lucidity, clearness of style or exposition, freedom from obscurity”.

Oral delivery is what most characterizes the distinctive style of Husserl’s lecture courses. It accounts for the omnipresence of sentence fragments, run on sentences, sentences beginning with conjunctions, and interjections, all of which are effective devices in an oral presentation, but are eschewed in written prose. It also accounts for a relative lightness of syntax and the abundant recourse to illustration. Moreover, it introduces a note of a refreshing liveliness and spontaneity.

Husserl’s word choice is frequently aimed at the ears of his listeners. For example, he often resorts to the ear-catching poetic devices of assonance, consonance, repetition of sounds, as when he says in §33c: “Das Ideal ist ein wissenschaftliches Erkenntnisganzes, das durch und durch im Bewußtsein immanenter Evidenz durchlaufen und als rechtmäßig begründet bewußt werden kann”.³² In Appendix BIIIa, he writes “Es sind ‘Bedeutungen’ in gewissem Sinn, eine Sphäre, die vor dem Sein im Sinne des Realen liegt: die ‘Sinne’”.³³ In his logic course of 1902/03, he enthused: “All of arithmetic is grounded in the arithmetical axioms. The unending profusion of wonderful theories that it develops (*entwickelt*) are already fixed, enfolded (*eingewickelt*) in the axioms, and theoretical-systematic deduction effects the unfolding (*Auseinanderwicklung*) of them”.³⁴

³² Ibid., p. 191.

³³ Ibid., p. 411, note 3.

³⁴ Husserl, *Logik Vorlesung 1902/03*, p. 33.

We find Husserl interlacing of themes of truth and perception in his telling use of the word ‘*wahrnehmen*’, to perceive, which he does not hesitate at times to use as a separable verb: to take (*nehmen*) as true (*wahr*). So it is that in §38, we find him saying, “evident ist es zum Wesen der Wahrnehmung gehörig, daß sie etwas wahrnimmt, einen Gegenstand, und ich kann nun fragen, als was nimmt sie den Gegenstand für wahr”,³⁵ or at the end of §49b, “Dagegen $2 \times 2 = 5$, das ist nicht so, das ist keine Wirklichkeit, das ist nicht Wahrheit, sondern Falschheit, nämlich die Vorstellung stimmt nicht mit einer entsprechenden Wahrnehmung, das Vorgestellte kommt nicht zur Wahrnehmung, sondern zur evidenten Falschnehmung”.³⁶ Such playing with language always represents a challenge to translators. However, Husserl’s plays on words in *Introduction to Logic and Theory of Knowledge, Lectures 1906/07* often do have equivalents in English or the spirit of them can often be otherwise captured in English.

Readers of philosophical works in English are primed to spot confusions of meaning and use. So, it is important to note Husserl was always conscious of the difference, but did not resort to the use of inverted commas to indicate the differences, a convention that was only consistently adopted in the English-speaking philosophical world at a later date. In *Einleitung in die Logik und Erkenntnistheorie, Vorlesungen 1906/07*, Husserl spells out the difference by using phraseology of the kind: the word apple. This is compatible with the fact that these lectures were delivered orally and this is the clearest way of marking the difference when speaking. I did not add inverted commas.

* * *

The lectures of *Einleitung in die Logik und Erkenntnistheorie, Vorlesungen 1906/07* were delivered at a crucial point in Husserl’s career. These were years of personal crisis for him. On June 28, 1906, he was promoted to *persönlicher Ordinarius* over the opposition of his colleagues in the philosophy department. In the entry for September 25, 1906 of his personal notes, we find him writing: “O God! This last year! How *could* I have allowed myself to be so crippled by the

³⁵ Husserl, *Einleitung in die Logik und Erkenntnistheorie*, p. 231.

³⁶ Ibid., p. 321.

disdain of my colleagues, by the rejection of the faculty, by the disappointment of my hopes for a higher position”.³⁷

On May 12, 1905, W. Fleischmann, the dean of the Philosophy Faculty, informed Dr. Ernst Höpfner, Royal Trustee of Georg-August University of Göttingen, of the philosophy faculty’s objections to the intention to appoint Husserl professor *Ordinarius*. After a hearing with expert witnesses, Fleischmann wrote to Höpfner, the faculty had reservations about the appointment and stood prepared to provide detailed reasons for their decision.³⁸

This was the same Dr. Höpfner, who, after collecting letters of protest written by Elias Müller and Julius Baumann of the philosophy faculty, had earlier objected to Husserl’s appointment to Göttingen as professor *Extraordinarius*. In a letter of August 1900, Höpfner informed the Ministry of Education that the university’s professors *Extraordinarius* hardly had any prospect of achieving a decent professorship and since they tended to the disgruntlement that inevitably befalls people in a hopeless situation, they were a burden to the university. Höpfner expressed his fear that their unpleasantness would become apparent all the more quickly and clearly with the presence of another *Extraordinarius* who too, might shortly become more or less disgruntled. Höpfner feared that, although Husserl was said to possess perspicacity and knowledge, his presence would worsen the mood among the present philosophy instructors, since he would probably not have a real future at any strictly scientific institution of higher learning. Höpfner even said that, reading the *Prolegomena*, one might guess that Husserl was Catholic, which would hardly make it easier for him to gain influence in his department. Höpfner claimed to have observed a markedly scholastic form of thought about Husserl, who as a philosopher issued peremptory orders as if a philosophy pope stood behind him assigning him a mission.

During his 15 years as a *Privatdozent* at the University of Halle, his colleague and friend, the famous mathematician, Georg Cantor had multiplied efforts to find Husserl a regular position. At Göttingen,

³⁷ Husserl, “Personal Notes”, p. 497.

³⁸ These letters can be consulted at the Geheimes Staatsarchiv Preussischer Kulturbesitz in Berlin. I am publishing them, along with the Cantor letters cited below, in a book written with Professor Jairo da Silva of the University of the State of São Paulo, Brazil. They have been transcribed by Rev. Fritz Weber from old German script for me and translated by Dr. Ruth Ellen Burke.

it was the famous mathematician, David Hilbert, who came to his defense. In 1908, Hilbert would argue that it was critical and in the general interest of the faculty and the university for Husserl to be retained and suggested that he should be made permanent *Ordinarius* in philosophy. In later years, Hilbert would boast that if it were not for him Husserl would not have stayed at Göttingen.³⁹

In his personal notes of March 6, 1908, Husserl confided that for reasons that he would not give, it was the most miserable period of his life, that he saw his energy ebbing away, that his life was in peril. He wrote that he hoped to pull himself together, to overcome his inner fragmentation, to rebuild his life, to give his spiritual existence a unified reference to its great goals. Nonetheless, in his course on *Alte und neue Logik* of 1908/09, he summoned up the courage to teach his students that it was a delight to be alive and to share in striving after the greatness coming into being in those days, which were not, as often said, a time of decadence, but the beginning of a truly great philosophical era in which age-old goals would finally be met at the cost of truly heroic strain from toil and new, higher goals would everywhere be held out. "We in modern philosophy are no less than visionaries" (*Phantasten*), he told listeners. "We have the courage and determination of the highest goals, but we strive after them on the most reliable paths, those of patient, constant work".⁴⁰

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This translation was made possible by a fellowship from the National Endowment for the Humanities in Washington, DC. I am very grateful to it for its assistance. I am particularly indebted to Dallas Willard and Barry Smith for their support, but also to Paul Gochet, Ivor Grattan-Guinness, Jaakko Hintikka, and Ruth Barcan Marcus for theirs. I am most grateful to Dr. Ruth Ellen Burke for volunteering to help me with the final version of translation.

³⁹ See Georg Cantor's Letter Book III (Cod. Ms. 18) and David Hilbert's Nachlaß at the Niedersächsische Staats-und Universitätsbibliothek Göttingen, Abteilung Handschriften und Seltene Drücke. The letter from Höpfner was transcribed for me from old German script by Rev. Fritz Weber and translated by Dr. Ruth Ellen Burke, professor of German at California State University, San Bernardino.

⁴⁰ Husserl, *Alte und neue Logik, Vorlesung 1908/09*, p. 6.

<Part I

THE IDEA OF PURE LOGIC AS A FORMAL
THEORY OF SCIENCE>¹

¹ Compare Parts I and II of this lecture course to Appendix A I and Appendix A II (Editor's note).

THE CHARACTERIZATION OF WHAT IS LOGICAL
TAKING THE EXACT SCIENCES AS POINT
OF DEPARTURE>

5 <§1. *First Distinction Between Logic and Psychology*>

A distinction is universally made, and already has been made for thousands of years, between logic and psychology. Not only psychology deals with thinking and the understanding, but logic does too. This is surely nothing new to you. From the start, you had associated the word logic with the idea that it is a science having to do with certain rules, norms for thinking, and more precisely, with thinking whose goal is truth. And you are, moreover, also familiar with the idea that truth is precisely a goal, therefore, something not given automatically from the start, but that it must be attained by working in certain ways, by certain set procedures of thought, by so-called methods. And further, that the so-called logical laws are norms to which one must adhere, or that one does well to observe, if one wants actually to attain this goal, and if the methodology is really to be useful. This already points, though still in a vague and by no means adequate way, to certain differences between logic and psychology of knowledge and, in general, of thinking. 2

Psychology deals with every kind of thinking. Each, even incorrect thinking, is a mental activity. Logic, however, deals with thinking so far as it is systematically directed toward the attainment of a goal, the goal of truth, deals only with thinking directed in that way, correct, and aiming for correctness, just with thinking that is logical or rational in the precise sense. *With the goal, with the idea of correctness, the concept of norm essential to logic enters into it.* Psychology does not set norms any more than physics does any such thing. One is a science of matters of fact and laws about matters of fact of a mental nature, while the other is a science of matters of fact and laws about matters of fact of a physical nature. The laws of physics are natural laws. They state that masses, energies of such and such a specific kind universally behave in such and such way. And, in the same way, psychology speaks

of the factual behavior of mental experiences, of laws regulating their coming and going in terms of established mental and psycho-physical relationships. Norms, however, do not say “universally it is so”, but rather “so it should be”; thinking is supposed to take this form, or else
 5 it is not, nor can it <be> correct thinking. It falls short of the goal of truth. This may, for the time being, give an inkling, an inkling of a certain difference in the way in which psychology on the one hand, and logic on the other, are concerned with thinking.

In connection with this preliminary distinguishing of psychology
 10 and logic, we also become aware of the fact that in the kind of reflections we have carried out, and especially in designating *logic as a “theory of thinking”*, the *concept of thinking* does not embrace all the acts belonging in the intellectual sphere, but only those of, as it were, a *higher level, namely, on which alone it is a matter of systematically*
 15 *aiming for truth as a goal*. So, for example, we do not call the thinking we must also ascribe to animals logical. An animal has perceptions, it has memories afterwards and it rises above present and past through habitual or instinctive expectation. In a certain sense, an animal also has experiences, it “judges” too, “understands”, it “infers” too, but does not do
 20 all that in the logical sense, just as human beings in the state of nature 3 and human beings in vast areas of everyday mental activity do not think in the precise sense of logic, do not proceed logically either.

What does that say, though? *What does this distinction between lower and higher, instinctive and logical ways of conceiving amount*
 25 *to*? Even though we are not ready to understand the ultimate and deepest reasons for it, we shall still take a clearer look at it, so that we can first of all lay hold of it in terms of the grosser differences. Now, this happens most simply when we refer to the fact of science. Just as animals certainly display imagination and delight in playing,
 30 but no ingenuity, so they have perceptions and experiences, but no science. And, the word science immediately directs our thoughts further. Animals do not have a language. Science is essentially carried out in forms of language. But that alone makes no difference. Language does not merely express thinking, but also feeling and wish-
 35 ing. Moreover, errors are also made in forms of language. Shallow quarreling, persuasion are carried out in linguistic form.

Science aims purely at truth. It does not argue with us over an opinion, a subjective conviction. It does not seek to act on feelings,

say through the charms and enticements of speech, as rhetoric does. It does not seek to win us over to a partisan point of view out of ethico-political or other practical motives. Its domain is that of the coldest objectivity. And, it acknowledges but one driving force and one motivation, the driving force of good grounds.

Science grounds. It secures its points of departure, builds further upon them. What it secures are truths, the simplest basic truths to begin with. And, we do not believe they are truths upon assurance or authority, but we see, we grasp this itself. And, we see indubitably that what is ascertained in this way is not vague opinion, empty idea, or imagination, but a given that it makes no sense to doubt. Originally, all science, to be sure, begins with the vague opinions of everyday life that have developed from uncomprehending experience. But, science develops through the critique exercised upon that, through systematic treatment that perspicuously works out the facts and information, first procures secure points of departure. And, in certain systematic forms offering themselves in perspicuous procedures, it ascends to truths ever more remote, ever more removed from ordinary thinking and seeing. Science does not consist in direct grasping and seeing, but in indirect deducing and substantiating. It compares and distinguishes, it classifies, and it draws conclusions from what is given. Out of conclusions, it constructs proofs, out of proofs, theories. And, all those are systematic procedures with a distinctive content upon which the tenability and Evidenz of the substantiation hinge. Instances of rational ascertaining and substantiating are naturally also already found scattered through ordinary life, but only science rules out, on grounds of principle, all motives for judging that are not of an insightful, perceptive kind. It admits of no move that is not systematically secured and by means of its systematic form yields the fully secure and visible guarantee of the tenability of the thought substantiated.

<§2. *The Idea of a Science of What Is Logical as That of the
Essence of Science in General*>

In yesterday's lecture, in some modest reflections within the reach of beginners, we tried to set up palpably and visibly in the roughest of sketches the contrast between psychology of thinking (or, as people also say,

psychology of knowledge) and logic. And, we tried to accomplish the same thing for the split between *thinking in the broader sense and thinking in the specifically logical sense*. We dealt with the latter split in the end, and that was to serve for delving further into and clarifying the former split. With that, it at the same time had the further goal of helping us procure a more meaningful, deepened conception of logic as the science of logical thinking than the one we had at our disposal in the beginning.

- We oriented the idea of logical thinking towards science.* It presents the logical κατ' ἐξοχήν. It is logical through and through. The thinking peculiar to it, or at least essential to it, represents a higher-intellective layer. We do not ascribe that kind of thinking to animals, though in their way they too possess minds, have perceptions and experiences, draw conclusions, and so on. Animals do not, then, have any science either. The lower, non-logical way of thinking is common to humans and animals. We certainly do not always think logically. We also are not constantly practicing science. In pre-scientific conceptualizing and judging, especially in that of humans in the state of nature, but also in our own conceptualizing in areas of everyday, practical activities, acts of thinking of course individually occur that we can claim to be logical and essentially analogous to scientific ones: well-founded judgments, inferences rigorously carried out and well-founded in a logical manner. But, this only happens just occasionally and only for small stretches. In all really scientific thought processes, science, however, genuine science, excludes lower ways of thinking on grounds of principle. What enters into its unity has a logical function and a logical character. With regard to it, we must therefore study what is genuinely logical. Before we do this and sketch the first rough strokes for characterizing the logical, however, an idea of logic that places this discipline in an essential relationship to the idea of science already looms before our minds. Since science is logical through and through and by nature plainly does not admit anything logically meaningless, it is then obvious that *the nature of the logical is fundamental to the nature of science*. All sciences, as varied as the fields they concern are, therefore, have essential points in common. Sciences as sciences are truly essentially characterized by what is comprised in the nature of what is logical, with which we are not yet more closely acquainted.

Yet, if that is so, then a science must be possible that deals with *the universal essence of science as such*, that therefore teaches us about everything that must necessarily pertain to all the actual and possible sciences as a whole if they are to merit the honorable name of science. In short, there must be a *theory of science*. The theory of science is then *eo ipso* the *science of the logical as such*.

The concept of logic with which we shall have to deal still more often is a very diverse one. That means that there are various broader and narrower limits that one can confer upon the logical discipline, or, what amounts to the same thing, there are various partially coinciding and partially overlapping disciplines that bear the same name of logic. This, however, is already clear here: A concept of logic can surely be rightly understood as coinciding with that of the *science of science in general*, of the theory of science. This identification makes only one small and readily self-confirming presupposition, namely that, outside of science, the logical does not exhibit any special forms compared to those occurring in the sciences, that consequently what is logical in the sciences, actual and possible, in principle includes in itself everything logical in general.

20 <§3. *Science Aims for Perspicuous Foundations*>

If we now seize upon this idea of logic, then the more precise characterization of the logical that we have before us serves to characterize it itself more precisely. In keeping with the inductive, abstractive procedures we are following throughout, let us now look at any sciences or scientific thought processes whatsoever. In them, what is logical is concretely given throughout. We may not really dispute that it is given to us. We have certainly come to know many things from the various sciences, I mean genuine, actual sciences. We were practically raised to comprehend genuine science, and in this regard we keep to what is best and most indubitable, say mathematics or exact physics, and not, say, to spiritism, magic, and similar occult quasi-sciences². That this inductive approach cannot be harmful—spiritists

² Rather, analytical way (similar to Kant's in the *Prolegomena*)

could, of course, maintain that their spiritism is genuine, indeed the only genuine science, and what is characteristic of science is only to be found in it—further headway in our insights will show.

- What is then, we ask, specifically scientific or logical*, say, in the
 5 thought processes of Euclidean geometry or modern physics? We
 already recently said: Science aims at truth and takes it as a goal
 towards which it resolutely points the way. Science does not just
 make assertions. Science wants to convince. Yet, it does not want
 to persuade, but to convince by reasons. Science sets forth nothing
 10 haphazardly. Science substantiates. Science (*Wissenschaft*) takes its
 name from *scire* (*wissen*), to know. What it states or asserts, to the
 greatest degree, however, becomes knowledge through the system-
 atic form of the statement. On the form hinges the insight that what
 15 is said there is not only said, thought, asserted, but is objectively
 valid, that it is anchored in such a way that no objection contributes
 anything to dislodging such guarantees. We now want to study these
 facts somewhat more closely.

- Insight, not blind conviction, gives science. Insight here means
perspicuously grounded conviction. It is not unreasoned conviction.
 20 Moreover, however reasoned conviction may be, if it is determined
 by blind habit, emotions, and heterological reasons like that, then
 it is considered logically unreasoned, unfounded, unreasonable. It is
 not then required by the *ratio* of the facts, but differently, for non-
 factual reasons. In presenting and exercising judgment in weighing
 25 the facts, wherever science makes a pronouncement and asserts it to
 be true, there are grounds justifying this, and this is visible, visible
 to anyone capable of fully and completely actualizing the thought
 sequence of the argumentation prescribed by science. Then “insight”
 is consequently given. The metaphor of sight obviously signifies that
 30 a particular, directly graspable quality has been conferred, either
 upon the logically established conviction, for example, upon the
 established axiom postulated, or upon the proven theorem in the sub-
 stantiating context, that is peculiar to it in the substantiating thought
 process, namely as its concluding term. Within this context of actu-
 35 ally performed argumentation, what is well-founded appears *as* well-
 founded, namely, in relation to the grounds of justification co-given
 in the unity of the same consciousness. And these justifying grounds
 themselves are in turn characterized as providing justification, giving

reasons for correctness, namely with respect to that conviction figuring as substantiated by them. In exact scientific argumentation, this characteristic reasoning visible to anyone in examples prevails in both directions, and it is not active there as some obscurely intended reasoning (as, say, in some vague sophism), but as fully seen and given, and directly graspable in its givenness.

This logical Evidenz, this perspicacity of the well-founded conviction (in which the quality of well-foundedness is directly seen), I say, is manifestly something entirely different from, for example, a particular *firmness* or *intensity* of conviction. A conviction may be *most firm* and *most lively*, without for all that in the least being logically warranted and perspicacious. And, vice versa, one or both may be missing, despite the logical perspicacity. *Liveliness* (a matter of emotional coloration) even usually stands in inverse relation to perspicacity. People do not get overheated about what is logically evident. Bombproof, logically perspicuous truths like 2 times 2 is 4 will scarcely be uttered by us in any especially lively way. Firmness of conviction does not matter either, since a well-founded conviction can be given up as soon as the substantiating reasoning process has run its course, say, on account of opposing emotional reasons, or out of more confidently held opposing convictions whose incorrectness has not been recognized, or on the basis of unperceived ambiguities that completely alter the meaning of what is known, and so on.

Moreover, one cannot demonstrate the quality of logical perspicuity, how it is different from blind conviction, however firm, to anyone, but only point to it, just as to everything given only in direct beholding. Even in ordinary sense perception nothing is really different. Elementary sense data like color or sound can only be perceived, and all indirect pointers only serve to direct other people's attention in such a way that their perception can discover in it what we <have> seen. If they declare over and over that they do not find it, then we cannot help them. Perception is nothing that can be substantiated. For this reason, it is itself grounds providing. And the same is true of perspicuity. I presume that upon impartial reflection no doubt will remain in your minds.

In your experience of science, you find enough ready examples to grasp the distinction between logical perspicuity (as perspicuity of substantiating) as opposed to alogical conviction. Every genuine

axiom is logically perspicuous, namely, directly perspicuous. For example, let us take the proposition, "The set that we obtain by the simple union of two sets a and b into a single one is the same whether to the given set a we add the other set b , or vice versa". This proposition is not stated perspicuously when I pronounce it in the usual way. It instantly acquires the quality of logical substantiation when, testing and substantiating, we trace the statement back to intuition, meaning when we make clear to ourselves the authentic meaning of the proposition for some example and then see that something like that generally holds. Here, tracing back to "intuition" and the intuitive generalization performed upon it is what makes for perspicuity, what is logically substantiating.

The matter is still a bit simpler when, *instead of a universal statement that can be directly substantiated*, in other words, instead of an axiom, we take a statement about a *single matter of fact*. Statements or convictions of this kind also admit of direct substantiation, for example, when I perceive a sound, and again a sound and, on the basis of the unity of the consciousness of the similarity presently connecting the two, state that this sound content and that one are similar to one another. My statement is not unfounded. It does not merely simply say "so it is", but I am looking at the facts themselves and what I am saying is precisely what is beheld. I see that my statement is grounded in intuitive consciousness.

In all cases of directly perspicuous reasoning, the conviction, the statement actually produced, is absolutely warranted. The truth is simply given. In other cases, it is otherwise. The *indirect substantiation* of statements forms an immense sphere of substantiation, and when talking about substantiation, it is even about it that we are chiefly in the habit of thinking. The validity of what is stated, the truth, is not directly given there, but perspicaciously accepted on indirect grounds. The statement is valid because the statements before it are valid, or are at least taken as valid, either because they were substantiated before, or because they were accepted as valid for no reason. In acts of indirect substantiation (of which every perspicuous inference, every perspicuous mathematical proof provides an example), not the truth itself, and of the substantiating statement absolutely, is actually seen perspicaciously, but only the well-foundedness of the "it is so" asserted in the arguments or premises advanced, upon whose

well-foundedness or not-well-foundedness the worth of what has been deduced and proven then further depends. Whatever the case, though, the perspicuity of the relative validity, of the indirect substantiation, of the substantiation upon assumption of the premises still obtains. It is what is characteristic in the consciousness of the proven proposition as such. It sharply distinguishes it from a blind conviction set forth haphazardly, or justified on alogical grounds.

<§4. *Presumptive Conviction and Substantiating Probability*>

Up until now, we have spoken of the direct substantiation of a conviction expressed as a statement through a founding intuition of the state of affairs expressed, and also of the indirect substantiation of a conviction in inferences or proofs through grounding in other, prior convictions. In both cases, by convictions we understood certitudes, in each case, therefore, a consciousness of the *it is so*, a consciousness of a true, existing, obtaining state of affairs. In addition, we must now add that *there are also convictions that are not of the nature of complete certitudes*, or that, when we take a closer look at them and consider their authentic meaning, do not mean to say unshakably and earnestly it is so, but “more probably it is so”. More precisely, we call them *presumptions*, understanding by that, though, not merely slight presumptions, but rather such “convictions” of greater strength and depth of consciousness of probability as are found throughout all empirical sciences and flatly pronounced in the form of unshakable declarations. Indeed, even declarations about the most well-known and most well-founded *laws of nature*, like the law of gravity, the basic laws of mechanics, and so on, are certainly of the nature of convictions, but in no way of absolute certitudes, for example, like the convictions of mathematicians. All natural scientists know that a law of nature holds only subject to further confirmation by future experience, and that it is quite possible that expanding the range of experience could compel them to make modifications in the law of nature so well verified within the narrower range of experience. And this already implies that they do not attribute statements of these laws the status of complete certitude, but only the status of well-founded probabilities relative to the state of empirical knowledge up until that

point or, what amounts to the same thing: Convictions have the character of *presumptions*, if we hold on to this distinctive, and now no longer misleading, term. 11

From the comments just now made, it already emerges that *in the sphere of presumptive convictions*, just as in the sphere of certain convictions, there is then something like substantiation. Here too, we have to make the distinction between vague, logically unfounded, unsubstantiated presumptions and, on the other hand, substantiated ones, and, in turn, the distinction between direct and indirect substantiation. The presumptive supposing of everyday life is for the most part unfounded, that is to say logically unfounded. We consider one thing or another to be highly probable where closer logico-scientific examination detects a slight probability, or none at all, where there is not absolutely superstitious foolishness. Things are different in science. 15

The principal part of the art of logic that governs the sciences of matters of fact is *the art of judging probability and providing grounds for probability*. It plays the greatest role everywhere, even where it is not expressly a question of probability. When, with equally perfected instruments, a dozen of the best-trained observers fix, say, one and the same position of a star, the figures establishing it never prove completely identical. Which, then, determine the “true” position? Astronomers then use them to calculate a probable value according to the “Method of Least Squadrature”. They do not claim to be absolutely certain that this is the true value, but that, on the basis of the present observation, it is the most probable one, the one to be accepted as the sole, legitimate, reasonable one, so long as new observations do not make better, more probable specifications possible. This is at the same time an example of *indirect substantiation in the sphere of probability judgments*. And every substantiation of a universal proposition, for example, of any natural law whatever, likewise belongs here. 25 30

On the other hand, there is *direct substantiation* here too, *directly logical perspicuity for probabilities*. Although we know full well that, for example, *memory* can deceive and that it deceives often enough, we trust memory all the same. And with reason. A statement in which I express an incident that I recall is, nevertheless, not unfounded. It is not empty talk dashed off for no reason. And it is obviously directly grounded in memory, but not grounded as a certitude. What it states 12

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together in a book, then the particulars there would no doubt be scientific, the whole, nevertheless, not a textbook of a science, but a juxtaposition of different sciences. Unity is wanting. And, if we think of the wondrous edifice of Euclidean geometry broken up into its theorems and proofs and these tossed about indiscriminately, would that still be geometry?

We realize *that the unity of science is an architectonic unity. Propositions are linked to propositions, arguments to arguments in systematic ways*, as required by the natural order of facts and arguments, and

with it the knowledgeable mastery of the field of inquiry. And, though there may at times be different ways of constructing architectonic unity here, so that there are different versions, different possibilities of systematic constructions for one and the same discipline, *it always is, and must necessarily be, an architectonic unity that confers upon*

the propositions and arguments a fixed order and relationship to one another. Of special interest in this regard are the law interpretive sciences towards which logic has always been especially oriented. Let us take, for example, mathematics, or the disciplines of theoretical physics, and so on. Here, we find proposition built upon proposition, through indirect substantiation, therefore.

The unity of the theory, the unity of several theories in a particular discipline, the unity of all particular disciplines in an overall discipline encompassing them, all these unities only obtain in the form of indirect substantiation unity. To understand this, one must go back to the *fundamental distinction between direct and indirect substantiation* recently discussed. This distinction is nothing dwelling in the contingencies of our predisposition, of our intellectual training and skills. It is not a matter of contingent partiality of a mental state, of a frame of mind, a matter of mood and of destiny

whether we directly see a truth, directly grasping and beholding it, or we see it as indirectly substantiated by pre-given proofs or convictions. Rather, it lies in the nature of things that an immense number of certitudes are *only* to be perspicaciously justified by indirect substantiation, consequently are never ever to be directly grasped as simple givens by going back to the corresponding intuition. Furthermore, this is no less valid for the whole sphere of probability and generally for the relationship between certainty and probability as well.

- Take the Pythagorean theorem as an example. We may go to ever so great pains to visualize its intuitive content, say, on the basis of a drawing of the square of the hypotenuse or the short sides of a rectangular triangle. An intuition directly, perspicuously substantiating the validity of the theorem for us does not occur. If we had never carried out the proof, we would then think nothing of the fact that some other or, in general, no legitimately fixed relationship obtained between the squares. Only in the proof, which is finally based on directly evident axioms, do we see that it is precisely the case and must be the case, namely, that the square, etc. And so it is wherever we carry out proofs. Where we substantiate indirectly, insight is just not in general to be had directly. And, precisely for this reason, all of science is replete with indirect arguments, in terms of its store of documentation even consists exclusively of such.
- Indirect arguments find their full, step by step characteristic expression in scientific exposition. They are linguistically documented as connections of affirmative propositions. They, therefore, establish a relationship between propositions and propositions. Of course, indirect arguments are based on direct ones. However, what is only to be substantiated directly is simply set forth in the science. Science does not have to go to a lot of trouble with direct truth and probability and it cannot really do otherwise either. Propositions that can be made directly perspicuous can only be simply set forth and their direct validity asserted. Anyone may take a look for himself or herself and will surely find this. What can be directly seen can really only be pointed to. Therefore, the *true calling of science is the construction of indirect foundations*. The fundamental fact that countless states of affairs can only become the object of rationally justifiable assertions in that they are connected in a certain way to other pregiven ones and, at the lowest level, to directly perspicuous ones, that only in this context do <they> visibly receive perspicuous justification, first makes <them> scientifically possible and understandable.

- The task arises to go beyond the sphere of what is directly given. And, it is the essence and achievement of science to lead us beyond it in a systematic way. Science is the sphere of what is no longer obvious, but is based on the obvious. And, the main point here is to collect and connect what is obvious in a suitable way, so that something new, something no longer obvious may arise from it.

Were all truths to admit of *direct* substantiation by directly going back to evidencing intuition, were that kind of evidencing possible, at least for anyone with sufficient talent, with a certain mental constitution, with suitable preparation, then it would never have occurred to humanity to build up proofs and theories and thus science. The main thing would only have been to put oneself in a propitious state of mind and then, as it were, to open one's eyes and see. We are not in this propitious position, which could be described as an intellectual fool's paradise. Things do not happen in such a simple, and I should like to say boring, way in reasoning. Insight into *direct* substantiation is only afforded for a relatively very limited class of states of affairs, and the simplest of all as regards its constitution. We typically call the corresponding class of statements *truisms*. Now, it is important for knowledge for there to be truisms, directly perspicuous certitudes and probabilities, important since, in the end, as foundation stones they support the whole edifice of knowledge, as they are uninteresting, trivial on their own account. *Only as the foundation stones of an architectonic whole of theoretical knowledge to be constructed* do they acquire their interest. What would we have to do with the direct statements of perception or memory, or the direct mathematical axioms if nothing more could be built upon them? How paltry would our knowledge be if we only knew that $1+2=2+1$, two quantities <are> equal to a third, etc., or that two straight lines only cross at one point, and other truisms like that, if nothing could be proven by that, no arithmetic, no geometry based on it. *Were, though, all truth to be seen directly perspicaciously, then everything would be obvious and trivial.* And, the enthusiasm for science would make no sense, even science itself would make no sense. *De facto*, however, the vast majority of truths can only be indirectly substantiated, consequently, are not trivial. Proof and method are required.

And, the new insight won, whose legitimacy was acquired indirectly, can along with other insights now itself in turn confer legitimacy once again on new insights. One only has to find the suitable way of assembling and connecting, etc. That is the specific calling of science. In it, the logical is given in the higher, broader sense. This logic, therefore, belongs to the essence of all science. The abstract disciplines, the nomological disciplines, like mathematics and theoretical chemistry, theoretical astronomy, occupy, though, an especially marked position,

- since for them the systematization in the building of the foundations exclusively determines the systematization of the science, something that does not take place any more in the same way in the concrete disciplines and those of natural history. However, I cannot go into that
- 5 further here. What is meant by “systematization of the foundation”, a certain order prescribed in the foundations themselves, will have to be clarified first.

<§6. *All Substantiation Is Subject to a Law of Substantiation*>

- We must now look more deeply into the essence of substantiation,
- 10 namely that of *indirect* substantiation, which is what is always meant when it is simply a matter of substantiation in what follows. All inferences and deductions, however simple, all webs of inference, proofs, theories, however complicated, fall under this.

- Upon closer inspection, *certain pervasively common peculiarities* of an extraordinarily remarkable kind now stand out. They are of 17 such importance with their all illuminating clarity that they certainly belong at the head of any logic, although earlier logics neglected to pay attention to them. I am myself making use of the discussions in Volume 1 of my *Logical Investigations*, p. 17.³

- 20 In the first place, in the comparative examination of any arguments, it strikes us that they are *characterized by having a set structure*. To arrive at a proposition (as expression of a certitude or probability) through argumentation, we cannot choose just any convictions whatever, or just any propositions whatever, as points of departure. Advancing
- 25 further in the argumentation thought sequence, we cannot incorporate just any terms whatever, exclude just any whatever, NB, if the whole is precisely to retain the quality of perspicuous substantiation. That does not signify that for every proposition, for example, every mathematical theorem, there is only one proof. In most cases, there
- 30 are several. But, as usual, each is a unit in itself rigorously structured of the kind described.

³ Compare *Husserliana XVIII*, p. 32 ff. (Editor's note).

Second, we observe, which is even much more remarkable, that each argument has *its form* and that a *law of argumentation* belongs to this form under all circumstances. What is meant by this will immediately become clear. The insight that the conclusion *S* is valid is bound to the insight that the premises *P1*, *P2*, etc. appealed to in the proof are valid. (The kind of propositions referred to here as premises is clear to you without further ado from your recollection of geometrical procedures. You know that one starts with some already proven propositions and that one takes no step in the argumentation in which one goes back to anything other than those propositions or, if need be, to other propositions derived in the course of the proof and already proven, or to axioms. Consequently, the perspicuous truth of the conclusion is, I said, bound to that of the premises.)

It is, one might at first think, some peculiarity of our mental makeup that, presupposing certain normal mental relationships, the Evidenz of *S*'s well-foundedness precisely always shines forth, if *P1*, *P2*, etc. are produced beforehand in a specific order in the consciousness. One would accordingly like to consider it possible that, likewise, with a suitable modification of our makeup, the Evidenz of *S* could have been connected on to an entirely arbitrary, different sequence of premises, say *P'1*, *P'2*, etc., or even that what had arranged itself together so promisingly in my head arranges itself differently in a different one, that for it, under the same psychological circumstances, the *S* could enter into the indicated relationship in any arbitrary system of premises. In short, one might think that the connection between *conclusion and premises* is indeed *subjectively necessary*, but for that reason *contingent* all the same.

In truth, it does not, however, happen that way in a single case. All proving is subject to laws that are *universal*, *evident* and, consequently, by no means dissoluble into thinking laws, so that *every particular proof falls under such a law*, which then *underlies* not only *this* proof, but an *infinite variety of possible proofs* as the principle of their validity. Examples will make the idea, and along with it its truth, intelligible.

To begin with, it is to be kept in mind that every proof, every theoretical whole in general is composed of elements of substantiation. Each proof has its steps, and the simple steps in the proof are simple inferences. It is enough to look at these simple inferences, for what

we demonstrate from them then holds of complicated full ones, as is convincing without further ado.

Let us accordingly select any simple inference whatever, whether occurring in isolation for its own sake, or as a term of an overall proof, and let us express its ideas perfectly completely. Let us, therefore, not use that ordinarily very abbreviated way of speaking that suppresses the obvious steps in reasoning and only explicitly expresses what is to be stressed at the time. For example, when within a mathematical reasoning process, we say of a proposed equation, “This equation is of the fourth degree, therefore, it admits of algebraic solution”, then this is an inference expressed in abbreviated form that in its complete form reads this way:

All equations of the fourth degree can be solved algebraically. This equation is of the fourth degree, therefore, it can be solved algebraically.

We immediately see that this inference is nothing isolated and contingent, but that countless other inferences share the same principle, the same form. It is, for example, in principle, the same inference as when in grammar we say that ποιέω has a sigmate aorist because it is a *verbum purum*, where the unstated premise “All *verba pura* have a sigmate aorist” mediates. And, in general, the countless cases belong here in which we carry a universal proposition already obtained earlier over to a particular instance, apply it to it. All these inferences have, as people say, a common form that, when the manner of expression is complete, is already imprinted in the very agreement with the formal expression, and that, when we designate the variable contents algebraically by letters, can also be designated in a characteristic way, to wit:

All *As* are α (or have the property α).
X is *A*, therefore it is also α .

We easily find the same thing in every complete inference. Every one has its form, and in them the forms are very different. Thus, for example, in an important theory in algebra, it is proven, on one hand: Every algebraic equation of n th degree having a root has n roots. On the other hand, it is proven: Every such equation has at least one root. And from this the conclusion results: Therefore, every algebraic equation of n th degree has n roots. Once again, the connection made is nothing wholly unique, only occurring here. We immediately recognize the form:

Every A , which is α , is B .

Every A is α .

Therefore, every A is B .

- 5 And, it happens this way no matter which case we consider. We find different forms there that expressed in this schematic form are also completely intelligible to us, for example:

Everything that is A , is B .

Everything that is B , is C : Everything that is A , is C .

Or:

- 10 $a = b$ $a > b$
 $\underline{b = c}$ $\underline{b \geq c}$
 $a = c$ $a > c$

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All As are Bs (must be Bs);

There is no B .

- 15 Therefore, there is no A .

If proposition M , then proposition N is also valid.

If proposition N , then proposition P is also valid

If proposition M is valid, then proposition P is valid.

If M is valid, N is valid.

- 20 Now, N is not valid.

Therefore, M is not valid.

- However, enough for examples. Every particular inference presented is, this is what we have found, an individual case of a fully determined class of inferences, and what characterizes the class of inferences is the oneness of the inferring thought, *the very same inference form*. And, at the same time, in every case, the directly evident, certain law obtains that, assuming the premises to be correct, every inference in general that proceeds according to this form, is itself correct. In every case, we convince ourselves that, upon understanding the universally inferring thought, the Evidenz of the fact that this manner of inference is universally correct, or that the principle of inference captured in the form of a hypothetical proposition is a legitimate truth, also shines out for us.

- 30 It is evident to us that, if $a = b$ and $b = c$, $a = c$ must be, no matter what on earth a b c mean. It is evident to us that, if a property a has a necessary relation to a property b , and the property c to b , that the property c must also have a necessary relation to the property a , no matter what properties are referred to, etc. Wherever, therefore, the Evidenz of the correctness of a proposition shines out for us “on

the basis” of the given or accepted correctness of other propositions, wherever it is at the very least evident to us that this proposition is true if the premises are true, it is not a matter of a contingent, isolated incident concerning just these particular propositions, or even this momentary subjective judgment, but always inherent to the connection made is a form running through the thoughts of the terms and uniting them, a form that captured in concepts immediately leads to a universal law extending to an infinity of possible arguments.

- It is definitely to be kept in mind in these comments that we are not speaking of substantiation in a loose sense, but in the strict sense. Those who draw false conclusions, those who construct a theory in a faulty manner are also substantiating in a certain sense. They do not merely set forth their propositions. They truly provide proof of them. While they are proving, they claim to be substantiating. *They are substantiating, but not in the genuine, logical sense.* Their conclusions are in each case grounded in their premises, principles, but *not logically grounded.* They claim to be so, but are not. We have, though, already said that the nature of the reasons does not matter. It is only to those genuine arguments actually conducted perspicuously that our comments about their inherent legitimacy are directed. And analogously, naturally, for potential arguments.

- To conclude, let us draw attention to yet a third point that strikes us when comparing different inferences or fixing one’s eyes more closely on the inference forms. These forms are *concepts of classes of inferences*, but not concepts of classes that *would somehow be bound to a particular field of science.* The formal universalization that provided us with the law of inference has, as we see everywhere, rid itself of anything particular to the field of knowledge concerned. At least in our examples. As long as anything material still remains in the class formulation of the inference, we still have not reached the pure form.⁴ Besides letters, what remains in purely formal expression are words like “all”, “some”, “is”, “is not”, “object”, “property”, “concept”, “proposition”, and so on. And it is clear to us without further ado that these are concepts that must necessarily play a role in all scientific disciplines, that these are concepts belonging essentially to all logically substantiating thought. Accordingly, we see

⁴Note: Not all inferences are formalizable. There are inferences that are bound to the essence of their respective content, like inferences of quantity, inferences of intensity, and so on.

that inference forms and laws of inference are not anything dividing the sciences, or becoming specialized with the specialization of sciences, but that they are something common to all sciences, constituting the form of science in all of them.

5 <§7. *The Significance of Substantiation Forms in Making Science* 22
 in General and a Theory of Science Possible>

What I have explained here is the beginning of any awareness of the essence of logic. It is plainly composed of truisms and yet, once more, remarkable ideas. They are *truisms* so far as what is expressed
 10 in them becomes evident without further ado once it is but formulated in clear conceptual terms. They are *remarkable* inasmuch as scientific reflection is first needed to discover that there are universal forms embracing all logical thought and, therefore, all sciences and systems of laws belonging to them, and, above all, *that upon closer*
 15 *inspection, these systems of laws bestow unity and meaning upon the idea of theory and science.* Therefore, it is only due to these systems of laws, and to the peculiarities underscored by us, that something like science is meaningfully possible and, consequently, the possibility of a theory of science, of a normative logic based upon them.

20 Were arguments formless and lawless, if the fundamental truth did not obtain that inherent to every argument is a law that embraces a possibly infinite variety of possible inferences having the same pure form and also justifies all these inferences purely on the basis of their form, then there would be nothing like science. Talking of a
 25 method, of systematically regulated progress from cognition to cognition would make no sense at all. Any advance in knowledge would be an accident (*Logische Untersuchungen*, p. 20 ff.)⁵

Then, one day, propositions *P*1, *P*2, ... would by chance meet together in our consciousness which, after a chance adjustment of
 30 our mind, are capable of bestowing Evidenz on proposition *S*, and then the Evidenz would duly shine out. If no form were inherent in the argumentation, and no law of argumentation belonged to the

⁵ Compare *Husserliana XVIII*, p. 35 (Editor's note).

form, then it would also no longer be possible to learn anything for the future from reasoning that has occurred. No argumentation would in any way be a model for any other argumentation, would have something in itself that could prove effective in similar cases. There really 23
 5 would not be similar cases. We train ourselves to prove and substantiate because there are far-reaching, prototypical similarities involved, because there are forms of argumentation that always reoccur despite all variations of the cognitive material and fields of knowledge, and for this reason can also prove effective psychologically when it
 10 comes to habit and association of ideas. We consequently comprehend the significance that thought forms already have in making the sciences empirically possible. Why do trained thinkers find proofs easier than untrained thinkers do? Because the prototypical forms of the proofs are more deeply engraved in their minds, because ways of
 15 thinking, habits of thinking have developed out of this that involuntarily determine their actual thought configurations and let them proceed according to the regulating forms. If there were nothing like a thought form, then it would not even make sense to look for a proof. How could we even begin? Could we, say, go through and test all
 20 possible groups of propositions to see whether they supplied useable premises for a given proposition and could bestow indirect Evidenz on it? In that case, the smartest people would really no longer have any advantage over the dumbest. What use could the former really to make of their extensive memories, their rich imagination, their
 25 ability to concentrate their attention for long periods? Such things obviously only acquire intellectual significance for thinking beings whose substantiating is subject to forms governed by laws.

We see, accordingly: well-ordered form is what makes the continuity of the sciences possible. Likewise, obtaining to a consid-
 30 erable extent, *the independence of form of the field of science* then makes further possible the continuity of a science aimed at the sciences in general, of a *science of science*, or a theory of science. If substantiation forms were not the common property of all sciences, if they were, rather, specialized depending on the science, then there would
 35 only be inter-coordinated logics individually corresponding to the individual sciences, but not a logic for all sciences. For what would remain of universal logic? Of the universal concept of science and substantiation? These can only give rise to a science, however, if their

universality unfolds in a variety of significant theories rich in content that present a wealth of truths common to every single science and relevant to all of them. Now, there is in fact such a thing. It lies precisely in the thinking forms belonging to the idea of science and essentially common to all the sciences, while the special logics only investigate what is peculiar to the special sciences, and not in the manner of their own sciences, but as supplements to the individual sciences.

<§8. *All Scientific Methods That Are Not Themselves
Substantiating Are Auxiliary Tools for Substantiating*>⁶

In the meantime, a supplement is still needed here. One could, of course, say that substantiation is, though, not the only thing that the different sciences have in common. Subjectively viewed, substantiation consists of *methods of establishing indirect knowledge*. If by methods in general, we understand any well-ordered arrangements that can be of use in attaining knowledge, the concept of method is broader than that of substantiation. And, besides substantiation there are obviously yet other methods that reach beyond the individual sciences and are partly common to groups of them, partly common to all sciences in general. The latter holds, for example, of methods of definition, of classificatory arrangement, of systematic technical terminology.

The priority we are according to substantiation will, however, at once be justified. It is, in fact, of central significance for all sciences. Upon closer inspection, namely everything that we normally call method, or nearly everything, is related to substantiation and first acquires its meaning through this relationship. Stated exactly, every method is related to *enabling directly or indirectly evident certitudes or probabilities*. If we now disregard the anything but very substantial field of methods and rules relating to the acquisition and securing of direct Evidenzen, then what is left over, and that is nearly everything, relates to indirect Evidenz, and precisely thereby to enabling or securing or abbreviating or otherwise furthering substantiation. On the whole, when we speak of scientific method and are not downright referring to a substantiation form itself, it is then a matter of auxiliary tools for the

⁶ Compare Appendix A III (Editor's note).

purposes of substantiating, for preparing, for facilitating, for securing, for making substantiation possible in the future. And, already implied in this is that these methodological arrangements can in no way be viewed as being on a par with substantiation, *which the primary, genuinely theoretical procedures*, on the contrary, are (obviously, besides the putting forward of direct insights).

So, for example, the *defining of terms* is a methodological procedure of this kind. It is namely an important prerequisite to securing substantiation in general for the thoughts to be expressed in appropriate ways so as to avoid the many pernicious effects of the fluctuating, ambiguous expressions of ordinary language. It is known that ambiguity is the source of most fallacious reasoning. Where a term contains several concepts essentially to be distinguished in the thinking context involved, but which owing to their content can easily flow into one another and mix together, there the very identity of the words covers up the difference in meanings. What holds for one will be claimed for the other without anyone noticing the switch, and there the confusion is ready to start. It is of course, clear that if, for example, I infer in accordance with the law:

20 All *As* are *Bs*.
 All *Bs* are *Cs*.
 Therefore, all *As* are *Cs*.

then the intent is for the *B* of the first proposition and the *B* of the second to be the same, the same designation, and likewise for the *A* and *C* in the premises to be the same as that then pronounced upon in the conclusion. If my words are ambiguous, however, and if for what is designated as *A*, I have demonstrated that all *As* are *Cs*, then I naturally have not proven this for the other thing designated by *A*, about which, on the contrary, nothing at all was stated.

30 The systematic procedure of definition is meant to control this nuisance of “ambiguity”. It teaches us to isolate the main sorts of ambiguity, instructs us how, in every intellectual pursuit, we should distinguish the concepts rigorously and also should keep the different concepts outwardly separate by using different terms, consistently maintained fixed. This is likewise the case in the *fixing of systematic terminology*. We are instructed that in cases in which complex concepts repeatedly reoccur, for the sake of the clarity of the reasoning process, it is to our advantage to express these concepts using signs

unique to them. It is just hard to operate with expressions packed together in complicated ways, and substantiating procedures could become completely impossible. Here again, we see the connection with substantiation.

- 5 This is likewise the case with calculational methods. They play an extraordinary role in the exact, deductive sciences and enable achievements that would not at all be attainable by operating in the ordinary way with the original concepts. Their essence lies in the fact that actual thinking and argumentation operating with the concepts
 10 themselves have been replaced by a mechanical procedure employing simple signs and set rules of operation. After mathematicians, for example, have formalized their work, they proceed purely mechanically in accordance with rules of calculation acquired by study. They often write the most complicated conversions on the blackboard,
 15 eliminate, integrate, and differentiate, etc. And, in all of them they operate only with symbols, just as with chips and rules for symbols that, as it were, represent the rules of the game. But, no matter how many wonderful things are achieved by calculational methods, they only acquire meaning and justification from the essence of the concepts and conceptual relations corresponding to the symbols and rules
 20 of calculation and so, once again, from the substantiating thinking.

- In short, we can state that *every actual advance in knowledge is accomplished in substantiation*. If we set aside the few things intended to be of use to methods of securing directly accessible knowledge,
 25 then all methodological measures and tricks that logicians traditionally deal with besides substantiation are related to substantiation and they owe their logical character to this relationship.

<§9. *Logic as Normative Art of Judging and as the Theory of an Art*> 27

- This division of methodological processes into substantiation and
 30 auxiliary tools for substantiating will now immediately be useful in leading us to the insight that the concept of logic as a theory of science can be defined in different ways. Recognizing the natural lines of demarcation here, separating the uniformly consistent group of problems and the disciplines belonging to them is, as we shall later see, a
 35 matter of great epistemological significance.

Logic as theory of science can be defined in different ways: as a theoretical, as a normative, and as a practical discipline. As against the “theoretical disciplines”, the normative and practical disciplines have in common that the propositions essentially peculiar to them express, not being, but a should be. Theoretical disciplines are, for example, the physical and chemical disciplines, and the such. A natural law like the law of gravity states that one thing and another are in unconditional universality, not that one thing and another should be. In comparison, normative and practical disciplines are ethics, esthetics, surveying, practical calculation techniques, architecture, and strategics.

Talk of what should be points toward a normative idea that is different for every normative discipline and that confers its unity upon all the special requirements of the respective discipline. Thus, for example, the idea of moral goodness in ethics, the idea of beauty in esthetics, the idea of a well-governed state in politics, etc. The normative discipline has, as it were, a basic standard, a basic set of requirements to measure up to. Its propositions, therefore, state the qualities something must have in order to satisfy these basic requirements, for example, the qualities a work of art must have in order to be able to be considered to be esthetically beautiful, to be a work of beautiful art in the genuine sense, the qualities an act must have to be able to be considered moral, etc.

A normative discipline becomes practical when it does not merely aim at criteria for setting standards, but also at rules of practical realization, namely at producing or furthering models conformable to these normative criteria. People are wrongly in the habit of routinely allowing the concepts of normative and practical disciplines to run together, therefore of merely contrasting theoretical with practical, or theoretical with normative, disciplines. Of course, in most cases, we set norms and pursue practical goals at the same time. We consider the ideals we use as gauges, as being practically realizable ideals. And so, immediately added to the rules of the normative judging, are additional rules as to how one can best realize what they require normatively, or which possible errors one must intentionally avoid in realizing such a thing. Such is the case, for example, in *ethics and esthetics*. On the other hand, these disciplines precisely teach that the nature of the theory of an art is separable from that of the normative disciplines.

Schopenhauer, for example, denies the possibility of any ethical training on the basis of his theory of inborn character. The will as thing in itself is determined once and for all. It enters the world of phenomena as the absolutely fixed, invariable, empirical nature of human beings. And, this is the source of all morality or immorality. One can control acts outwardly, but not intrinsically determine the attitudes originating in one's inborn character through upbringing, through example, and moral theory. All moralizing is pointless. Therefore, according to Schopenhauer, there is no practical morality, no ethics in the sense of a theory of an art. But, according to him, ethics most assuredly exists as a normative discipline, therefore, a discipline that has to investigate the normative principles lying in the essence of what is moral. And, likewise, one can plead for insight in esthetics: Artistic activity presupposes talent, and talent would need no practical instruction except in the esthetically extra-essential technical tricks of the trade. One can and will for this reason, though, uphold a theory of the essence of the beautiful, however, or a discipline that seeks to expose the normative criteria belonging to the idea of the beautiful.

After having differentiated and explained the concepts of theoretical, normative and practical discipline, let us turn back to our logic. Is logic, the science of science, a theoretical discipline, or is it normative or practical? We shall readily see that, according to the definition we have conferred upon it, each of these questions can be answered affirmatively.

If we take the broadest definition that can be given of logic, it is the one that understands it as theory of the art of scientific knowledge. From time immemorial, logic has often enough been defined as the theory of an art, as theory of the art of thinking, as theory of the art of knowledge, upon occasion, also, as theory of the art of science. All such definitions essentially lead to one and the same discipline. The theory of the art of thinking naturally has in view thinking aiming at truth and its indubitably certain correctness, therefore, thinking that is logically perspicuous or can be made perspicuous. Its most important developments lie, though, in science and it is, in any case, also science that is aimed at with this definition.

This is also the case with the definition of logic as a theory of the art of knowing. For, knowing is nothing other than what was described by us as logical thinking. As for what concerns the theory

of the art of science, on the other hand, we have already recently said that the lowest forms of thinking also occur in connection with scientific thinking. They are indeed the primitive elementary forms out of which the higher and more complex ones of science are built. It is, therefore, clear that the theory of the art of science must embrace and deal with what the art of the theory of thinking seeks to deal with and vice versa.

Well, that such a theory of the art of thinking is possible and thoroughly justified is easy to see, and it is no less clear that logic can be first of all be understood as normative art of judging the correctness of substantiating thinking. According to what we have discussed, sciences as such have a wealth of principles of substantiation common to them all. There is a wealth of laws of indirect substantiation, or laws of inference for short, that hinge on the form of substantiating thinking and not on the specialization of the field of science changing in each case. These laws are plainly destined to guide us in our practical thinking process. First of all, they supply norms, principles for judging formal correctness, in accordance with which we can gauge whether pre-given and claimed substantiation is real substantiation. If substantiation is to be made perspicuous, if it is actually logical, then according to the remarks made about it, a substantiation form can be lifted out of it and a law proper to it stating: Every substantiation of such a form in general is necessarily correct. Therefore, the present one is correct on grounds of principle. It is correct because any one of this form is generally correct.

How frequent, though, is erroneous substantiation. How often does one doubt once again whether an inference performed was admissible, whether a proof tenable. Then, normative logic comes and declares the universal rule to be a norm: Every substantiation, if it is to be logical substantiation, must have its formal law. With that, we have a completely universal criterion at our disposal. For every inference, for every individual step in a proof, one must be able to produce a formal principle of validity. If I turn to the form and it is then evident to me that an inference of this form in general is necessarily correct, then I am completely and thoroughly certain. If in turning to the form, though, I realize that a principle of inference of such a form does not generally hold, if I can, say, find examples of inferences of such a form that yield evidently false results, then my

inference was inadmissible. There we, consequently, have a normative twist to a universal science-theoretical insight.

The theory of science can, though, also function normatively in other ways. Supposing that we have systematically laid down all
 5 primitive forms of proposition and forms of inference and principles of inference pertaining to them, first of all the primitive ones, then those systematically derivable from them. Supposing that the system of valid principles of substantiation is complete, or at least complete for rigorously defined fields of substantiation. Then, for testing, for
 10 logically judging given inferences, we do not need actually to test whether the pertinent formal law of inference actually obtains in every single case, therefore, wait and see whether we are capable of achieving insight into it. Rather, we could simply refer to the body of laws systematically laid down in logic. If the law is found stated
 15 there, or if it is contained in stated ones, then everything is in order. What is spared in so doing is the effort of achieving perspicuity in the full, genuine sense, in whose place external subsumption appears.

I recall a parallel, that of practical calculation. If we have the multiplication tables, if we have even learned them by heart, then we do not
 20 actually need to think at all any more for each multiplication falling under them. We do not need any insight. We look at the tables. The
 31 external mechanical subsumption procedure takes the place of genuine thinking. And, the laws for finding square roots, of logarithms, the algebraic laws too, etc. function in precisely this way, purely as
 25 external norms for the correctness of practical procedures. The intrinsically theoretical propositions of pure arithmetic preserve a normative function that spares genuine, perspicacious thinking. In the same way, the principles of substantiation can be of great help normatively and relieve us of the work of really perspicacious thinking.

30 Logic has in fact always had such normative aims, and people have proceeded in conformity with its rules. If logic has established once and for all that no general proposition is to be deduced from particular premises alone and a look at the form of an inference shows us that it only makes use of particular premises, then it is logically
 35 inadmissible.

Logic has not, however, traditionally sought to be simply an art of judging. It does not simply seek to lay down rules as criteria by which we can judge presumed knowledge, presumed inferences, proofs,

theories as logically correct or incorrect. Since our thinking and substantiating, since all our logical activity in the sciences stands within our power, since we are capable of intentionally directing them toward goals of truth and of systematically training ourselves to do this, it then becomes a reasonable task to explore the conditions lying within our power to which the practical realization of a logically correct, of a genuinely scientific thought process is subject, to explore the favorable and prejudicial circumstances more closely, and correspondingly to lay down rules as to how we best further the systematic attainment of scientific knowledge, how we construct proofs, theories, scientific disciplines in correct ways, can design and define in fruitful ways, and in this respect guard ourselves from taking wrong paths, from fallacious reasoning.

Undoubtedly, a theory of the art of knowledge, more precisely a theory of the art of science, therefore, makes good sense, is perfectly legitimate. Naturally, this discipline will be limited to exploring the conditions and rules connected with the essence of scientific thinking, while more remote conditions promoting or impeding the progress of logical activity, or the development of logical states of mind, will be left out of account. Coffee and tea have a good effect at times. Alcohol acts as a stimulant, but soon is a hindrance again. Physical strength and health are good prerequisites for intellectual performance, *mens sana*, etc. These are all useful truths, but no one will drag them into a theory of the art of logic.

It is completely different with the rules based on the laws of substantiation. Above all, the laws of substantiation themselves must provide the matrix. They truly express the essence of logical reasoning. And, naturally they have not merely a normative, but also a practical function. Knowledge of these laws can be practically useful to us like that of the laws of arithmetic, which really do not merely act as norms for measuring arithmetical correctness either, but also as practical rules of calculation, as schemata to be practiced for proceeding correctly with calculations. One practices proceeding with mechanical calculation in accordance with these rules and then is sure that the results, though obtained in a mechanical, non-perspicacious way, will nonetheless hit upon what is right.

However, not merely laws of substantiation and their transformation into practical propositions about how one should think come into

consideration in a theory of the art of logic, but also those rules of definition, terminology, classification, and so on, indirectly related to them. For all these are, as we have recognized, auxiliary tools for facilitating and securing substantiation and are intrinsically related to the essence of substantiation.

<§10. *The Formal Laws of Substantiation as Theoretical Truths*>

It immediately follows from these considerations that the discipline
5 of logic can be defined in broader and narrower ways. Its definition
as *theory of an art* constitutes the broadest and, on the whole, most
primitive concept of logic. It is also presently the most widespread. 33
Indeed, a series of prominent logicians defend even the thesis that only
the definition of logic as theory of the art of knowledge is admissible,
10 only a logic understood as a theory of an art exists in its own right in
relation to psychology and metaphysics. We shall not yet go into this
controversial issue for the time being. What we can, however, affirm
on the basis of the path that we have carefully traveled is this: *that for*
a logic as theory of science, a group of laws that <we> called formal
15 *laws of substantiation claim a central position of such a kind that, if*
anything whatsoever deserves to be called logical in the original, specific
sense, these laws do. However these laws may stand in relationship to
psychology, they constitute a store of laws for their own sake, namely,
of *theoretical laws*, i.e., of laws that in themselves do not, to begin
20 with, affirm anything about a should in the sense of a criterion, or
about a should in the sense of a rule of practical realization. It is of
great importance, and you will understand this clearly later on, to have
once arrived at certain knowledge of the fact that the formal laws to
which all logical substantiation is subject can be freed of all normative
25 and practical meaning and that this meaning is their original meaning.

If we take any formal proposition of what is called syllogistics, the
first thing that naturally comes to mind is to state it practically, nor-
matively. For example, "From particular premises alone, one may not
with certainty deduce any unconditionally universal proposition".
30 Supposing *A* to be valid, then one may conclude with certainty that
the contradictory opposite of *A* is not. Or also, "I may not assert con-
tradictory assertions, contradictions, in the same breath". Or, "From
propositions of the form all (some) *As* are *Bs* and all *Bs* are *Cs*, one
may conclude that all (some) *As* are *Cs*". But, it is quite clear, and

- need only be pointed out once, that this may and may not and similar expressions are extra-essential here. If I say, "From two propositions of one form or another, a proposition of correlative form follows", then there is no talk of may or should in this. If I say, "Of two contradictory propositions, one is true and one false", then that is again a theoretical truth. It is not a normative rule like the one saying we may not incur contradictions. Obviously, however, rules of this kind are only normative turns of phrase of the originally theoretical propositions. If I want to think correctly, if I want to deduce correctly, then
- 5 I may not deduce in this way, or I must infer in this way, precisely because the proposition says that such and such is valid for actual, logical inferences. And, naturally, I may not violate that, not enter into contradiction with it, because I would otherwise assert something false. Out of the theoretical proposition, "No universal conclusion
- 10 follows from particular premises" comes the normative proposition, "Whoever seeks to infer correctly may not seek to derive a universal conclusion from particular premises, and so on".

- Precisely the same is the case here as in mathematics. In practical arithmetic, the theoretical proposition, "The value of a product is independent of the order of the factors" is transformed into the rule that is its directly evident consequence, "One may carry out multiplication in arithmetic in whatever order without having to be afraid of making error by so doing". And this is so everywhere.
- 20

- Consequently, there is no doubt that we can define the idea of the theory of science in such a way that to begin with all normative and all normative and practical motives are left out of account. There is no doubt that *a logic as theory of science* can be constructed *that is not in itself a normative discipline* and not the theory of an art, but rather explores with a purely theoretical intent certain essential
- 25
- 30 characteristics that all sciences as such have in common.

- Historically, logic of course developed as a normative discipline, as a scientific canon and technique for correct reasoning. But, we also find something similar in the other sciences. Originally, arithmetic also developed as an art of practical calculation, and only later was purely
- 35 theoretical interest in patterns purely grounded in the idea of number aroused. Very late, and actually only in modern times, did it come to the establishment of a theoretical science of arithmetic leaving all practical concerns out of account. The latter sets purely theoretical

goals for itself, investigates the theoretical connection of arithmetical laws, without in the least bothering about practical calculation and possible applications of arithmetic to physics, astronomy, and the like. And, why should what is possible in arithmetic not be possible
 5 in our field?

Investigating pure theory wherever a field of pure theory can be constituted is the leading principle of all modern science. And time
 and again, it has turned out that precisely the gratification of purely
 theoretical interests in all areas of knowledge, and the disregarding
 10 of any demand for practical utility, was ultimately also of the greatest utility to practical life and its concerns through the infinite wealth of useful consequences easily derivable after sufficient development of pure theories. For example, purely mathematical theories that at first seemed to be fantastically remote from any real application later led to
 15 the most fruitful discoveries in the applied mathematical disciplines. And likewise in the remaining sciences. Who would have believed 200 years ago that Gilbert's curious observations about frictional electricity pursued purely theoretically by him and his successors with unrelenting zeal would lead to modifying so essentially practical life in later
 20 centuries? Do theoretical astronomers or theoretical physicists first primarily ask about practical utility? No. That is a question for technicians following in the physicists' footsteps. And so, we shall also distinguish between pure theory and technique in our field, and more precisely between purely theoretical logic, between normative and
 25 technical logic. Genuinely philosophical interest, though, clings exclusively to theoretical logic, as it is already a matter of great significance to it to define it in its purity and uniqueness.

<§11. *The Supratemporality of the Proposition as Identically
 Ideal Meaning, Science as a System of Propositions*>

30 To further insight into the essence of the theoretical discipline that we call pure logic, let us engage in the following reflection. Scientific reasoning aims for truth. Truth is realized subjectively in judgments and is stated in statements. Let us now disregard the various mental moves that can precede judgments and statements and let us only pay
 35 attention to the judgments or statements themselves. *Every scientific*

theory is a system of statements. It is the result of various thought operations, perceptions, presentations, deliberations, etc. It is something complete in its own right and, as it is, lays claim to truth and falsehood. The starting propositions lay claim to this directly. The theory, the definitely formed web of propositions, lays claim to substantiating new truth indirectly, step by step. And the system itself lays claim to being true as a system. That means that everywhere one thing is linked to another by logical inference that is also stated, therefore, is also set down as true. 36

5 Let us take any statement in its own right. Then we can distinguish:

First, the *linguistic garb*, *what is grammatical* does not interest us here. It is not important whether it is French or German. It is only logically important that the same “judgment” corresponds to the statement.

15 Second, *what is psychological*, that would be the present experience of the judging on the part of the very person making the statement and judging it as stated there.

Third, something new, the *meaning of the statement*, and fourth, again something else, the *objectivity* about which the statement says something. For example, Kepler’s first law, “All planets travel around their central body in elliptic orbits”. Or, the theorem of the sum of angles of a triangle.

1. The linguistic expression, the wording that even parrots can produce without understanding it and being able to judge.

25 2. This understanding and judging, being convinced in all certainty, or even in all probability, are mental processes that the person stating or understanding has, that last a while, then are replaced again by other conscious processes. People are obviously not speaking of these fleeting experiences when speaking of Kepler’s law, etc. If I repeat the statement, I do not then have two Kepler’s laws, but have the same one stated twice. The theorem of the sum of the angles of a triangle is one as opposed to the countless experiences of judgments by human beings in which it was stated with conviction and will be again. *To the proposition, we attribute truth, validity.* The coming and going of judgments as mental experiences does not mean the coming and going of truth. 30 The theorem of the sum of the angles of a triangle holds whether I see it or do not see it, whether anyone has reason or not to believe it, or does not believe it. Truths are “discovered”. In knowledge, they 37

become conscious, are seen, known, substantiated. But, these subjective experiences are not the truth itself. Though this identical, atemporal being of truth as opposed to the variety of judgments may be a puzzle, a miracle, a problem, one thing is certain, that in talk of truth we have this identity and supratemporality in mind, that they belong to the meaning of talk about truth. And the same is the case for every proposition.

Even a false proposition has this supratemporality. If we distinguish between the different formulations in which the same proposition comes to be expressed, the same false proposition $2 \times 2 = 5$, and the different subjective experiences in which this same proposition is the content of the conviction, then in so doing we have put forth the proposition as something identical in the logico-ideal sense and contrasted it with the various experiences and various formulations. And, this contrasting and putting forth as an identity is not something we artificially devised here, but is obviously something given us in advance. A conceptual formation exists that is employed in all scientific discourse. Wherever, in connection with scientific investigation and exposition, it is a matter of a proposition, whether true or false, never in any way is a mental experience of a specific person or a bunch of terms or signs printed on paper being referred to. Referred to is something that is not multiplied with the stating and repeated understanding and believing, but is one and the same everywhere.

The proposition in the sense discussed is what we call the meaning of the grammatical statement, or even the sense, because sense and meaning normally signify the same thing. With regard to the act of judging, the proposition is what is referred to in the judgment, and is the same, no matter how often judged. One can also say of the judgment as act that it has a meaning content, namely precisely this what, the proposition. One can also speak of the content of the judgment, although that is not so very perfectly clear owing to an ambiguity that instantly becomes apparent.

Furthermore, we distinguish propositions, even true propositions, from the *objects* to which they refer, and the state of affairs meant in them. The theorem of the sum of the angles of a triangle states a situation¹

¹ One must further distinguish between situation (*Sachlage*) and state of affairs (*Sachverhalt*), likewise between presumed and truly existing states of affairs and situations.

- belonging to the essence of space. Kepler's proposition says something about planets, namely about a certain kind of movement of those very planets around the central body. If the proposition is true, then the objectivity about which something is referred to in it obtains. If the proposition is false, the objectivity does not obtain. But, even if it does not obtain, then the proposition itself is still something existing in its way. Not a thing, not something real, but nonetheless something existing. Not everything existing really also usually claims to be something real, a thing. When mathematicians make statements about the infinity of the number series, no one understands them as referring to things. Likewise, when geometers make statements about their mathematical figures, even about non-Euclidean figures. The figures established as objects in their propositions "*exist*", as they say. That does not mean, though, that they are realities. A triangle having <the sum of the angles> of three right angles does not exist. A triangle with <that> of two right angles exists. Even ideal objects have their non-existence or existence.

- So it is in our case as well. *False propositions obtain as mere propositions*. They do not, however, obtain as true propositions. In the sciences, since they aim for truth, by proposition people ordinarily immediately understand truth. A proposition's not obtaining means it is not true; no state of affairs corresponds to it. For logical reasons, it is, however, necessary to understand the concept of proposition more universally. *A false proposition is not nothing*. It is a proposition, but the objectivity of which it is stated in it that it is and has such and such qualities does not correspond to it.

- The same distinctions that we have drawn for affirmative propositions naturally also hold for all "parts" of affirmative propositions. Each word in them, and each coherent word complex, has its meaning, and this meaning refers to an objectivity. Every subject of a proposition names an object and names it by means of a meaning. Psychologically corresponding to this is the understanding of the word or the actual naming, in general the analogous use of the term, above all in connection with the judgment being stated. This act of naming is, then, a part of the act of judging.

Furthermore, the same distinctions that we have made for individual affirmative propositions are obviously also to be made for any webs of affirmative propositions whatever, insofar as they combine into the unity

of a complex thought that as a whole lays claim to truth or falsehood, consequently is to be grasped subjectively as judging and objectively as a proposition, however complex. That holds for every inference. It is composed of propositions. The propositions are, however, bound together, and the whole, the inference itself, is something that lays claim to truth and falsehood. There too, we accordingly have to distinguish: first, the linguistic garb; second, the mental phenomenon of hearing the word, and with that understanding and judging them at the same time (i.e., here <of> combining the individual judgments into their substantiation unity, in short, the mental experience of inferring); third, the identical ideal meaning, the conclusion that is not multiplied in experience, but is always the same; and fourth, objectivity. Likewise, for every proof, however complex, for every theory. We speak of the same proof, of the same theory as against the unlimited variety of people thinking out the proof, studying the theory, etc. Corresponding to it is the legitimate system of facts coming to meaningful expression in the theory.

If we, therefore, keep <to> a science's store of theories and to the overall unity that the theories have within the science, so far as they have in general been brought to theoretical unity, then we find the same thing everywhere: the identical ideal meaning as against what is outwardly linguistic and contingently psychological. And this identically ideal meaning is what gives science identical objective unity or unity of validity as against the people investigating it, teaching, understanding, studying it, and as against their mental acts.

Let us take, for example, the theoretical system of modern pure mathematics, what we immediately tend to see as mathematics. Then, as regards its essence, this theoretical system is no more than a system of logically combined statement meanings, *a system of propositions*. This system states truths about a certain combination of facts, namely that of the mathematical facts making up the field of mathematics. This field is not given to us externally and apart from knowledge, but only in and by means of knowledge. And, it is scientifically given and known as far as it has been dealt with theoretically, as far as the valid theory reaches, therefore, in form of valid propositions and combinations of propositions. The subjects of the propositions refer, say, to numbers, the predicates to properties of numbers, or to relations between numbers, the combinations of propositions to combinations of properties and relations as regards cause and effect, as regards compatibility and incompatibility, etc.

<§12. *Logic as Science of Ideal Propositions
and Proposition Forms*>

From these considerations, we see that different theoretical sciences participate in the reality of science.

5 1. *Psychology*, insofar as the actual practicing of science is realized in individuals with minds and in certain of their acts and states of mind like presentations, judgments, etc. We add a second thing here, though it has not figured in our observations up until now.

10 2. Insofar as the individuals <are> members of a social community and especially also, in practicing science, exercise socially connected activity, insofar, then, as science can also be viewed as a social and cultural phenomenon, it is also a part of sociology and the science of civilization, whether in the general science of forms of civilization, or in historical science, in history of civilization does not matter to us here. It does not even lie in our path. It is just mentioned for the sake of completeness.

15 3. Scientific thinking is performed linguistically. Scientific statements belong to one language or another and as such are objects of linguistics.

20 4. As regards its *essential makeup*, as regards its theoretical makeup,² science is, as we have recognized, a system of ideal meanings that unite into a meaning unit. So it is, at least for every theoretical discipline complete in itself in the strict sense. The theory of gravity, the system of analytic mechanics, the mechanical theory of heat, the theory of metric or projective geometry are all systematic units, not of mental experiences of one person or another, or of states of mind, but units that are entirely composed of ideal stuff, of what we called meanings. And, in this lies truth and falsehood, lies what science makes into an objective, supra-individual unit of validity logically grasping and dealing with a sphere of objectivity.

41

²Better: Science with regard to its content in “objective theories”* that dispense with the relationship to the subjectivity of the researcher. That science includes such things belongs to its essence. It includes, however, other statements as well.

*That would have to be elaborated upon: Every science has a domain for which it seeks truth, for which it seeks universality of truth, the theory of domains.

- Now, meanings like concept, proposition, proposition complex exist as objects of a possible science. *There must, though, be a science that investigates the essentially different forms or types of meanings, the different modes in accordance with which higher, more complicated forms are built out of elementary forms and that further investigates which laws of validity are essentially grounded in these forms.* All meanings then come under this science, no matter which science they may occur in. But, it does not investigate those specific to the individual sciences and what results from their specificity in terms of validity or non-validity, but rather *meanings independently of their individual scientific specialization*, meaning precisely in universality and according to the specifically different types or forms that are grounded in the most universal essence of meaning and, further, of validity in general.
- What kind of science is this? Is it just concerned with meanings, or must we pull in here still other series of concepts as essentially legitimately connected with meanings? To begin with, it is clear that this science coincides with the one that opened up to us when starting with substantiation. For once we recognized that substantiation, if not entirely, yet to an extraordinarily great degree, is nothing specifically dependent on the content of the different meanings, on what distinguishes the different sciences, but rather belongs to the pure form of the propositions and their combinations, then the task becomes *to differentiate systematically all possible forms of propositions and then to investigate systematically the laws of validity, primitive and derived, belonging to these forms.*³

- All meaning forms are then included in the proposition forms, because every meaning is either a proposition or possible part of a proposition. Obviously, proposition and proposition forms are actually to be taken here in the ideal sense of meanings and meaning forms. It is not a matter of acts of substantiating, but rather of substantiation as inference, inference in an ideal sense, as systems of ideal propositions. And, substantiation laws are primarily laws to which such inferences are subject as regards their ideal form. It is only in normative use that they become rules for actually substantiating psychologically.

³ With this, though, is given the restriction to deductive and formal substantiation! That would have to be dealt with more precisely!

- When, in the ordinary discourse usual in the different sciences, we speak of one way of inferring or another, of one proof or another, for example, the Euclidean proof of the theorem of the sum of angles of a triangle, we are naturally not referring to mental experiences, but to *the* proof, which is the same over against the infinite variety of people teaching and reproducing the proof. And when, for this reason, we speak of inference forms or proof forms, of theory forms, we are again referring to forms of ideal meaning units and validity units, not forms or details of mental experiences. It is, therefore, clear that as soon as we limited the theory of the art of logic and took a look at that core content of *theoretical* propositions that had to belong to a theoretical discipline, we found ourselves within the *discipline of logico-ideal propositions and proposition forms* just now considered. We found ourselves within the *discipline of the ideal* meaning that belongs to all statements, and especially to all scientific statements, scientific expositions and texts, and makes up what is *specific to science*, its claimed or actual truth content.

<§13. *The Science of Meanings Is Not a Part of Psychology*> 43

- 20 <(a) The Ideal Unity of the Proposition as Against the Variety
of Real Experiences of Judging>

- Now what kind of science is this science of meanings? How far do its natural boundaries extend? When they hear of a science of meaning, people raised with the prevailing psychological logic and those whose interests and cast of mind are psychologically oriented say that meanings are presentations that are attached to words by association. Consequently, the science of meanings falls into psychology. This is exactly as if they had said: the formal logical laws are laws of formal truth, or are laws for judgments, for only in judging is there truth. Laws for judgments also include laws for inferences, proofs, etc. But judging is a mental activity. Drawing conclusions, working out proofs are mental activities. Therefore, it is everywhere a matter of psychological laws.

We would naturally answer here: If it makes psychologists happy to call subjective meaning presentations, acts of judging, and so on,

meanings, then a science of meanings is surely a science of mental experiences of a certain category, consequently a part of psychology. We are, however, not referring to mental meaning presentations as meanings, judgments as propositions, inferential acts as inferences, and by science of meanings, we do not understand a science of all such mental activities or experiences, or states of mind either, but by meanings we understand concepts or propositions, and by propositions, say, not judgments, but what is understood by propositions in all sciences, and they are just not judgments, not temporal events in an individual consciousness, but rather *ideal units of the supratemporal kind* that can function identically as meaning in infinitely many judgments. And that carries over to inferences, proofs, theories.

And, we furthermore say: Engaging in scientific research into experiences of presenting, judging, and so on, is different from engaging in scientific research into propositions and combinations of propositions, speaking generally, about meanings. The experience of judgment belongs *hic et nunc* within one context or another of the experiences of an I. It can be investigated within this real context. In scientifically psychological research, though, one does not consider the experience *hic et nunc*, but asks what holds for such real experiences, for judgments in I-contexts in general, which real properties of such an I substantiate such experiences, how they determine the course of mental life, what role they play in general within the context of individual reality and of psychophysical causality. And precisely all that is of no concern to us in logic at all. We do not talk about all that when we want to deal with propositions and laws of validity for propositions.

If we know, for example, that every proposition is simple or composite and that every simple proposition contains at least one concept directed to the object about which the proposition posits something, or that out of propositions of one form or another propositions of such a form truly result, and other knowledge of the same kind, then we are continually speaking of the proposition in its ideal unity and not at all about mental experiences of individuals, not even in the most general way. Likewise, when we say that for every proposition there is a contradictory one, and again when we state the law of validity that of any two contradictory propositions one holds and the other does not hold, etc.

Two propositions are not two judgments. The same proposition can be judged a thousand times and it remains just one proposition. Wherever

- several propositions are spoken of in the given sciences (and absolutely so wherever the theory of science speaks in universal terms of several propositions), it is not a matter of several acts of judgments, as if the contingency of the judging was decisive, but of several propositions
- 5 in the ideally unitary sense. Once again, where two proofs are spoken of, it is not a matter of two people and their experiences of proof, or of one person and several experiences of proving, but of two proofs in the ideal sense. And *one* proof can be thought out a thousand times, actually be carried out a thousand times in anyone's thinking and seeing. Only
- 10 the circumstance that logicians had not sharply made the distinction and had spoken in their science of "presentations" and "judgments" where they should have spoken of concepts and propositions clouded the true situation. People spoke in logic of judgments and speak in psy- 45
- 15 chology of judgments. The word was the same and people did not pay attention to the fact that in the properly logical sphere, in the sphere of formal theoretical principles, the word judgment never signified the same thing as in psychology, never a real experience, but an identically ideal meaning.

20 <(b) Propositions as Ideal Particulars Are Not Class Concepts for Mental Experiences>

- Now, however, an objection surely comes up. A proposition is the meaning of a statement or of a judgment. A logical proposition is *what* the judgment judges, *what* the statement states, therefore, for example, the *identical what*, however often I or others state $2 \times 2 = 4$.
- 25 Therefore, a proposition is surely something universal that we obtain by abstraction and generalization on the basis of actual judgments. Let us take a look at some parallel cases. If, on the basis of individual feelings that we hold out before ourselves in memory or perception, we form the universal concept of feeling, or any universal given lying
- 35 in feeling, then we surely obtain a psychological concept. When we do the same on the basis of several individual judgments, should we not then obtain a psychological concept just as well? Does not the concept proposition, therefore, belong in psychology and with it likewise also the general laws grounded in this concept?

We shall still have to delve more deeply into this question. Here, though, the following suffices as an answer. The concept of judgment is a psychological concept insofar as in psychology it is a class concept for certain mental experiences linked by what they have internally and specifically in common. If, however, we form the concept of proposition, then mental experiences do not fall into it as particulars. No class of facts of consciousness is designated by it. With a class concept we universally express propositions about the individual particulars falling into the class. By means of the concept of judgment, psychology, therefore, expresses universal propositions about judgments, about real matters of fact in individual egos that are to be characterized in such and such a manner. When we speak of propositions, however, we are referring precisely to propositions as particulars, and propositions are not facts of consciousness. The individual proposition indeed comes to givenness in a certain way in the experience of judgment, but it is not the judgment. It is rather something ideally identical, or something identical in endlessly many actual or possible judgments. The individual proposition, for example, the theorem of the sum of the angles of a triangle, does not refer either, however—although a general unit as against the multiplicity of judgments—to a class concept that contains these judgments, or individual parts or moments inherent to them, but talk of the theorem of the sum of the angles of a triangle simply refers to something individual that in no way claims to relate to and claims to co-refer to any individual particulars falling under them. In talking about this theorem, we are not referring to what happens in or to real temporal matters of fact that we call mental experiences of experiencing individuals, but just this theorem as something simply individual. This individual is absolutely the same however often we state that the sum of the angles of a triangle is two right <angles>.

These ideal particulars, the theorem of the sum of the angles of a triangle, the theorem of the parallelogram of forces, and so on, form the objective sphere to which universal talk of the theorem in general refers and to which every law of substantiation for propositions in general refers. I do not want to say that the science of meanings has nothing to do with psychology—psychology, the natural science of mental individuals and their real experiences and experiential states of mind—but it is certain that *theory of meaning is neither psychology,*

- nor belongs in psychology*, since it just does not deal with real experiences, let alone experiential states of mind of real individuals. The mere fact that only on the basis of actual experiences, whether judgments, whether memories of judgments, or presentational feelings of empathy in judgments, can we bring the meaning of the word proposition to exemplarily clear givenness, and only there directly capture what the word proposition refers to, may not provide any argument that we are dealing with a psychological concept. It is indeed obvious from the start that every concept refers back to the so-called corresponding intuition, thus for example, the concept of number. A number is only given in actual counting. Someone who had never counted would not know what a number is, just as someone who had never had a sensation of red would have <no> authentic presentation of what is red. Are we to say for this reason that number is a psychological concept, the whole of arithmetic a branch of psychology? That would surely occur to no one. All givenness is realized in knowledge, in subjective experiences of perceiving, presenting, etc. And, upon this we form concepts and we judge and draw conclusions. *Mental experiences of knowing belong in psychology.* What is known is not psychology, however, just because it is known in knowing, a mental experience.

<(c) Psychology an *A posteriori* Discipline, Pure Mathematics and Logic *A priori* Disciplines>

- That with purely theoretical logic, insofar as it is theory of meaning, it is a matter of a science completely different from psychology* is also markedly in evidence when we consider how psychology substantiates its general propositions, and alone can substantiate them, and, on the other hand, how logic does the same thing. Psychology is a natural science, a science of real matters of fact. It truly deals with the real I and real occurrences in egos. As a natural science or science of matters of fact, it starts with what is given it at first, that is with precisely the particulars of a mental nature that are established by perception, at least directly and in initial substantiation. What is given by perception and experience is placed under empirical concepts. *Induction* then supplies propositions of empirically universal

validity. If one wants to reach beyond these lower universalities and if one is seeking *natural laws*, universalities of unconditional validity within the range of possible experience that can be used for the theoretical clarification of matters of fact and other universalities, then hypothetical assumption is the only way. If the hypothesis is verified over and over by extensive deduction and verification, then this is grounds for an extraordinary, ever increasing *probability* of its validity as a natural law.

This way of empirical formation of concepts, of empirical generalization, of empirical formation of hypotheses and what is connected with it is all called for by the nature of real matters of fact, and this is why no natural science, none developed or yet to be developed, will ever be able to lay down and substantiate a law of nature except as being of relatively greater probability, never, however, as being absolutely certain. 48

It is one of the biggest jobs, if not the biggest, of logic and critique of knowledge to demonstrate this and to understand the ultimate reasons for it. Nonetheless, in the face of such ultimate substantiation, one sees that really all natural science can only move forward by such means. Matters of fact only produce matters of fact over and over, and universalities only prove to be factual universalities presumably reaching beyond previous experience. *There is, therefore, no psychological proposition that can be substantiated with absolute certainty, any more than there is any such thing in the most exact physics.*

As everyone knows, pure mathematics is completely different, and we observe this with pure logic just as well. Pure mathematics as pure arithmetic investigates what is grounded in the essence of number. It is concerned not with things, not with physical things, not with souls, not with real events of a physical and mental nature. It has nothing at all to do with nature. Numbers are not natural objects. The number series is so to speak a world of objectivities of its own, of *ideal* objectivities, *not real* ones. The number 2 is not a thing, not an event in nature. It has no place and no time. It is just not an object of possible perception and “experience”. Two apples come into being and pass away, have a place and time. But when the apples are eaten up, the number 2 is not eaten up. The number series of pure arithmetic has not suddenly developed a hole, as if we then had to count 1, 3, 4....

- Pure arithmetic does not, moreover, obtain its universal propositions by means of perception and empirical generalizations based on perception and on the substantiation of individual judgments resulting from them. Arithmetic does not first obtain its individual propositions from perception. I can perceive two apples precisely while I perceive each apple. But I can not perceive the two. And, when we judge generally, set forth $a + 1 = 1 + a$ as a legitimately valid proposition, or when we express the proposition that for each number a there is a number $a + 1$, and whatever other primitive laws of that kind there may be, we are not then substantiating this unconditionally universal proposition inductively and as concerns probability. We are not step by step establishing that $2 + 1 = 1 + 2$, $3 + 1 = 1 + 3$... and in the end saying that it will presumably continue in this way as <was the case> in all the individual cases established so far. We do not first state $a + 1 = 1 + a$ as a hypothesis that then has first to be verified by further experience by means of ever new individual findings, or else inductively according to the methods of the natural sciences. Rather, mathematicians set down $a + 1 = 1 + a$ in a single blow as something unconditionally valid and certain. And how do they come to that? Well, in a perfectly obvious way. It is part of the meaning of number (of cardinal number in the original sense) for that to be the case, and it would be tantamount to flying in the face of the meaning of how many if one wanted to deny <that> here. It is part of the meaning of talk of “cardinal numbers”⁴ that each one can be increased by one. To say that a cardinal number, a how many, cannot be increased is tantamount to not knowing what one is talking about. It is tantamount to contravening the meaning, the identical meaning, of talk of “cardinal numbers”.

- In this manner, the direct arithmetical laws, genuine axioms, develop. They develop directly in the Evidenz of certainty.* And this quality of certainty and Evidenz carries over to all theses in deductive substantiation. All mathematical propositions, insofar as they are really purely mathematical, express something about the essence of what is mathematical, about the meaning of what belongs to it. Their denial is consequently an absurdity. *No proposition of the natural sciences, no proposition about real matters of fact that is really of the natural sciences* (and is not, say, the mere carrying over of a proposition based on essence-laws to individual cases) *is to be substantiated as certain*

⁴ Cardinal number is itself a “meaning”.

by means of Evidenz. Its denial never means an absurdity, a contradiction in terms. If I deny the law of gravity, or the law of the parallelogram of forces, or the laws of habit, of the association of ideas, and the like, then in so doing I cast experience to the wind. I violate the evident and extremely valuable probability that experiences and their systematic processing have established for the laws. But, I never in any way incur absurdity. I am not saying anything “unthinkable”, anything absurd, i.e., precisely evidently nullifying the meaning of the word, as I, for example, do when I say that 2×2 is not 4, but 5. 50

- 10 It naturally also happens in mathematics that universalities are assumed presumptively on the basis of observed patterns. However, that does not settle the matter for mathematicians, but only formulates a problem. For, just as it is grounded in the nature of the realm of matters of fact that propositions about matters of fact
15 can only be established inductively and in all probability, so it is grounded in the nature of the mathematical realm, so to speak, that the propositions relating to it must be able to be perspicuously established as certitudes.

- Precisely the same thing holds for pure logic* under the sphere of laws
20 we have elucidated up to now with examples. Every primitive law of inference, every primitive logical “principle” is a general certitude to be directly grasped through Evidenz. Of two contradictory propositions, one is true and one false. That is to be viewed generally as absolutely certain. Anyone who denies this does not know what contradictory means, what
25 true and false mean. One cannot deny this without flying in the face of the meaning of those words. The proposition is simply an “unfolding” of the intension of the “concepts”. It is purely grounded in them.

- And what holds directly for the principles holds indirectly for the <propositions> deductively derived from them. We are just not in
30 psychology, in any sphere of empiricism and probability. *The world of the mathematical and purely logical is a world of ideal objects*, a world of “concepts”, as people are in the habit of saying. *There all truth is nothing other than analysis of essences or concepts.* What is required by the concepts and is inseparable from their intension,
35 meaning, is known and established.

The distinction is also referred to as that between the *a priori* and the *a posteriori*. *Pure mathematics is an a priori discipline, the whole of natural science an a posteriori discipline.* The one is entirely grounded

in conceptual essentialities, the other in experience with its factual occurrences. Mathematical propositions require no reference to experience and no induction through experience. This is what is meant by saying mathematical propositions are *a priori*. It makes no sense to require such 51
 5 a thing of them. The opposite holds for <propositions> of the natural sciences. However, one has to be quite careful that no further mischief is gotten into with the concepts *a priori* and *a posteriori* and that no other thing may be understood than what we have set forth.

<§14. *The Correlation of Theory of Meaning and Formal Ontology*>

10 These last considerations have essentially furthered our insight into the essence of the theory of science represented by the science of ideal meanings. It is not a part or branch of psychology, in spite of all appearances. And, we have thereby at the same time acquired a meaningful piece of knowledge: Ideal science and real science, or
 15 what amounts to the same thing, *a priori* science and empirical science, stand in relationship to one another just as world of ideas and empirical world do. And the science of meanings as such is an *a priori* science, a science of ideal objects.

We are now taking an important step forward. I ask: *Is the theory of science only to be characterized as a priori theory of meaning?*
 20 *Is it already completely represented by this theory of meaning?* We still do not know the natural boundaries of a pure logic as a universal theory of science. We still do not see how far it reaches and which essentially connected group of problems it embraces.

25 The only thing that can be aimed at is a theory of science whose universality is *a priori* universality. We have excluded everything that is empirical in the factualness of science. This belongs neither in psychology, nor in sociology and history of civilization. What is *a priori*, what is ideally unitary that runs through all empiricism and
 30 constitutes unity of science as an ideal unity of validity is then primarily theoretical unity, unity of meaning. We have, then, also enthusiastically taken a look at and so arrived at the conception of a science that investigates what belongs to the ideal essence of meaning, be it simply that, or with respect to validity and invalidity.

- What we have, however, not examined more closely is the *correlation between meaning and object*, the fact that it is inseparably a part of meaning to refer to an objectivity. Should not this object side of all science (as ideal theoretical unity) also have to be drawn upon for the characterization of the essence of an *a priori* theory of science, and *should not objectivity in general likewise and a priori contribute concepts and laws to a logic in our sense*? We shall see that this is actually so. It will be shown that belonging to the essence of objectivity as such are systems of laws that, extending over all possible determinate, given objectivities, must only be ranked, not with a particular science, but with the science of science in general, and finally that, together with those grounded in the idea of meaning, all these laws form an intrinsically unitary theory of science, namely in that both are connected essentially by *a priori* bonds of thought, thus are linked to one another by bonds of thought that can be made evidently conspicuous. The idea of science does not give rise to several disconnected *a priori* disciplines, but at most to several relatively unitary disciplines, but once again to disciplines intrinsically unitarily intimately bound up with one another, thus to a single overall science.
- 20 In pursuing these thoughts, we come upon an astonishing insight, namely that *the whole of formal mathematics* belongs in the *a priori* theory of objects and, thereby, in the fully comprehensive *a priori* theory of science. You will thereby understand why I so readily turn to mathematics as an example and have repeatedly established parallels between it and pure logic. In kindred fashion, we are struck by the *a priori* character of pure mathematics, which we have intentionally co-demonstrated in our reflections. However, it is not a question here of an extraneous kinship, but of an intrinsic, inseparable essential unity of laws of essence.
- 30 Let us now follow up on this. Meaning and object are correlated *a priori*, i.e., evidently necessarily in accordance with their meaning.⁵ The object is only given for thought just as object thought, and then thinking refers to it by means of its meaning intension, by means of

⁵ Spinoza says: *ordo et connectio idearum idem est ac ordo et connectio rerum*. If by *ideae* we understand meanings and by *res* the correlative objects, then we can interpret the statement for ourselves in the right way, but it is by all means better to avoid it.

concept and proposition.⁶ And the other way around, it belongs to the 53
essence of meaning that it either presents an object as a nominative
presentation or posits it as a proposition.⁷

- 5 Anything and everything can figure under the heading object. It may
be an empirical object, a thing, or natural process. It may also be an ideal
object, like the infinite number series, an elliptical function, perhaps
even a mathematical proposition, a chemical concept, etc., possibly also
a meaning, as when we make statements about statements. Meaning and
object are surely not one and the same and they never coincide either. For
10 example, the two expressions the present German Kaiser and the present
Prussian king are not tautological expressions. They differ in meaning,
but they refer to one and the same object.

- We have also already said that, just as for other meanings, this
correlation obtains for whole propositions. Corresponding to a
15 proposition is a state of affairs, precisely the one that is posited in it
as obtaining. If the proposition is true, then the state of affairs actually
obtains (and the object-about-which actually exists), and it does
not obtain if the proposition is false.

- Upon occasion, it has also already been mentioned that, precisely
20 in connection with this correlation, just as each law of inference can
be viewed as a law of validity for propositions of a certain form, so,
in an obvious conversion, it can be viewed as a law for the obtaining
and not obtaining of states of affairs. It is of this that we must, then,
first of all make use.

- 25 In the pure theory of meaning, we have a field of laws and theories
that, in virtue of the correlation discussed, deals *with objects* as it does
with meanings and extends over all particular sciences in the same man-
ner. With that, we already have a purely formal *a priori* with respect to
objects in general in the most universal universality. For naturally, since
30 logical laws speak of meanings in a way that implies nothing about the 54
particular nature of any special science, correlatively, they can also be
changed not to speak of objects in such a way that a limitation to a special

⁶The expression is dubious! Thinking has its what was thought and in this the objectivity
that was thought as something identical that has its meaning form.

⁷It belongs to the essence of meaning to be a proposition or component of a proposition
and, moreover, to harbor within it an objective content in certain subject, predicate
forms, etc. as pole of identity, thematic contents. Every proposition has "objects-
about" and has predicates, relations, etc. concerning them.

sphere of knowledge would thereby be effected. If I adapt the Principle of Contradiction to objectivity, if instead of “of two contradictory propositions one is true and one false”, I say “of two corresponding states of affairs one obtains and the other does not”, then only object
 5 concepts utterly void of content, like state of affairs and obtaining and not obtaining, really enter in. Such concepts are naturally the common property of all science as such.

Each particular science has its particular objects that it calls by particular names, thinks by means of particular meanings.⁸ But, all
 10 objects are, then, precisely objects too. The concept object is, therefore, applicable everywhere in all sciences and that is an *a priori* truism. Being determinable by predicates is grounded in the essence of the object in general. Therefore, the concept of predicative determination, of property, is once again a most universal concept of objectivity that
 15 must be the necessary common property of all sciences, both actual and possible. This is likewise the case with the concept of obtaining, also <with> the concept of being dependent, for example, for states of affairs’ being dependent on states of affairs, predicates on predicates, etc.

It is obvious that with regard to these concepts, the pure truths
 20 grounded in their meaning, inseparable from their meaning (therefore, *a priori* truths) cannot exclusively belong to any special science either, rather must be part of the common property of all sciences, therefore, of what we designate under the heading of *a priori* theory of science. *A priori theory of science therefore includes an a priori, formal ontology,* 55
 25 as we can also say, an *a priori* science of objects in general, i.e., of possible objects in pure possibility and so universally thought, materially so undetermined as not to anticipate any special science of possible objects whatever. For this reason, we more accurately say formal ontology.⁹

⁸ “Plane geometry”, the theory of “elliptic functions”, etc. are ever one, despite being depicted and theoretically delineated in very different ways. What is identical is the overall system of possible configurations in the plane and the overall system of their “positions” (*Sachlagen*) (essence-positions). The word theory is therefore ambiguous—Weierstrassian, Riemannian, Jacobian theory of elliptic function, but it is not a universe of the positions, but a universe ordered according to grounds and consequences, and each one ordered is “logically equivalent” to each other one. However, “the same science”, but under different “theoretical depictions”.

⁹ 1. No reality of objects is presupposed. It is a matter of pure possibilities of objects.

2. No material way of being an object is preferred and presupposed as regards content.

<§15. *Fitting Formal Mathematics into the Theory of Science*>

- Up to now, we have only familiarized ourselves with formal-ontological propositions resulting from obvious conversions of formal laws of meaning (laws of validity for meanings). The idea of a *formal ontology* as an *a priori* discipline that investigates *all* truths belonging to the essence of objectivity in general in formal universality is, however, more far-reaching, at any rate very much more far-reaching than might be expected from the propositions of the area accorded priority in our examples, therefore, more far-reaching than the sphere of traditional formal logic. Rather, this most universal theory of objects of all, this formal ontology, embraces the *whole of formal mathematics*. To be noted in this regard, is that this term formal mathematics excludes geometry. It embraces the pure theory of cardinal and ordinal numbers, theory of combinations and all disciplines of what is called analysis, number theory, function theory, algebra, the differential and integral calculus, <the> theories of Euclidean and non-Euclidean manifolds and any theory of manifolds in general: the whole of “arithmetized” mathematics, to use one of Professor Klein’s expressions. For those not well-versed in mathematics, it suffices to point to pure arithmetic and algebra, the rudiments of which are taught in school.

- The uniting of pure logic as a priori theory of science and formal mathematics* at first looks quite like some eccentric whimsy, and not just to beginners. *What do logic and mathematics have in common?* People are in the habit (a habit thousands of years old) of keeping the two bodies of knowledge in drawers far apart from one another. For thousands of years, mathematics has been considered a unique, special science, self-contained and independent like natural science and psychology, but logic, on the other hand, an art of thinking related to all special sciences in equal measure, or even as a science of forms of thinking not related any differently to mathematics than to other special sciences and not having any more to do with it than they.

- In the meantime it is surely striking that under the heading of *mathesis universalis*, a Leibniz, whose historical stature has increased so substantially with the progressive knowledge of his incomparably comprehensive posthumous writings, developed an extraordinarily expanded idea of pure mathematics. This most universal mathematics, according to him, no longer merely deals with what is quantitative, with quantity and number, but also with what is non-quantitative in terms of its mere form.

All *argumenta in forma* belong to it, including the entire supply of formal theories of traditional Aristotelian-Scholastic logic. Very recently, Lotze said of arithmetic that it was no more than an independently developed branch of pure logic, and upon occasion Riehl agreed with him. Even
 5 though these scholars remained isolated in their views and even though they failed to investigate the matter in greater depth, they did, as we can observe, doubtlessly see what was right.

What has kept logicians from joining them up until now has been the lack of an intrinsic understanding of the essence of logic. Most of
 10 them remain attached to the idea of a normative, practical discipline and, succumbing to the basic errors of psychologism, make logic into a technical adjunct of psychology and, if need be, of metaphysics. If we take, for example, the leading accomplishment of modern German logic, Sigwart's logic, we find in it no hint, as it were, of the existence
 15 of that *a priori* theory of meaning and object whose definition, delimitation, and elucidation are of such interest to us here. The same holds of Wundt's, B. Erdmann's logic and so of other celebrated accomplishments.

Even those logicians who, following in Kant's and Herbart's
 20 footsteps, view logic as an *a priori* discipline independent of psychology have not come to clarity about the peculiar essence and the natural boundaries of *a priori* logic. Even they do not rise to the idea of an *a priori*, theoretical theory of science in our sense, up to now, of theory of meaning and object, and so they have not recognized the
 25 unity of pure mathematics and pure logic either. I must only make an exception in a certain way of an eminent Neo-Kantian. The idea of the unity of logic and mathematics has been championed for several years, and independently from me, by Paul Natorp, whose manner of championing this conviction and of defining the idea of logic admit-
 30 tedly departs essentially from my own. He has pronounced upon this both in the introduction to his *Sozialpädagogik*, and in his lectures on logic and introduction to philosophy.¹⁰ Since my *Prolegomena to Pure Logic*, which makes up the first volume of my *Logical Investigations* and is essentially the reworking of lectures that I gave in 57

¹⁰ P. Natorp, *Sozialpädagogik*, Stuttgart 1898; *Logik in Leitsätzen zu akademischen Vorlesungen*, Marburg 1904. *Philosophische Propädeutik in Leitsätzen zu akademischen Vorlesungen*, Marburg 1903 (Editor's note).

1895 in Halle,¹¹ I have myself made essential progress, which is to the advantage of the present lectures.

- If we now go back to our idea of an *a priori* theory of science, then no major machination is needed to make it clear that the basic concepts of formal mathematics and the laws essentially grounded in them are science-theoretical. Let us recapitulate. What belongs in general in logic as theory of science? We did away with everything empirical in the theory of science. There are, we showed, also empirical investigations of a very different kind that are related to science in general: empirico-grammatical, sociological, culturo-historical, psychological investigations. We were able to do away with all of them, as well as all aiming at a normative, more or less psychologically based theory of the art of science. For, connecting on to the formal laws of substantiation, we detected an extensive supply of *a priori* theoretical formal laws that lend unity to the idea of science at the inmost level, without which consequently all further empirical and technical studies of science would be baseless, because without their validity science in general would no longer be science. Completely universally, we must naturally say: All knowledge in general, without whose validity science itself would forfeit its meaning, possibility, and validity as unit of validity, belongs in a *a priori* theory of science. “Science as unit of validity”, I say, meaning, science as a system of interconnected, not hurriedly collected, statements, statements that form their theoretical unity in accordance with their meanings.
- Pursuing natural boundaries, we rose to the idea of an *a priori*, theoretical theory of meaning. In its inmost essence, science is meaning unit. And, in virtue of the correlation of meaning and objectivity, the theory of meaning led us to an idea of an *a priori* theory of objects, of a formal, purely theoretical ontology.
- It is now evident that everything purely mathematical is actually science-theoretical in this sense and, especially, that it belongs within formal, pure ontology, whose scope consequently extends very much further than may be supposed from the correlation with traditional syllogistics. Let us take, for example, the basic concepts of pure arithmetic and of the theory of manifolds connected with it, concepts

¹¹ The lecture course that Husserl is referring to was held during the summer term of 1896, not 1895. Compare *Husserliana XVIII*, p. XXIII ff (Editor’s note).

like multiplicity and unit, or set and member of a set, order, combination, permutation, cardinal and ordinal number, whole and part, relation and concatenation, equality and inequality, etc. We heard that the concept object in general obviously belongs to the idea of science as such, therefore, is purely logical. That will consequently also have to hold of every concept essentially (that is as regards its meaning and *only* as regards its meaning) connected with the object concept. Does it not belong to the essence of the object as such that every object can be added as one, that for every object an “other”, “different” from it, is conceivable, that one object and another object combine together as an aggregate, as a set, and then can be counted as “2”, and so in general aggregates of different objects that can be counted as 2, 3...? For actual numbers, whether it is a question of planets, chemical elements, geological ages, electrons, and whatever else is a matter for the actual particular sciences. But, whatever is an object, therefore, each and every thing, can be posited, counted, compared, and differentiated, further ordered, combined, permuted, etc. as one. All the concepts named, therefore, contain nothing of the particular nature of any subject matter whose scientific treatment one material science or another undertakes, but only such as essentially belongs with what is expressed by the idea of the object in general and stands in an *a priori* relationship to it.

If mathematics investigates the laws that are grounded in such concepts *a priori*, i.e., purely in terms of their immanent sense, for example, the possibilities of determination and functional dependencies grounded in the essence of cardinal numbers, *then all that, therefore, the whole of a priori mathematics fits into the theory of science.*

<§16. *Mathematics and Logic as a Supply of Truths That Each Science Can Freely Use*>

A doubt could enter in here. Does the theory of science not investigate what belongs to the universal essence of science as unit of validity, therefore, what is necessarily common to all sciences, both actual and possible? But, in what way is mathematics common to all sciences, since it only plays a major role in some, in the theoretical natural sciences, so that only for them can one be inclined to say that

the mathematical belongs with them? The theoretical-abstract disciplines, mechanics, optics, etc., are concretely mathematical, and in contrast to them pure mathematics is just pure, develops the formal theories that are then applied to their special subject matter throughout the “exact” sciences.

However, we should not allow this to lead us astray. Purely logical or purely science-theoretical concepts, laws, theories are not concepts, laws, theories that are actually used in all alleged sciences, but are those that *belong to the idea of science as such on principle* and for that reason constitute a supply that all sciences can use in like measure without being the specific property of one. The essence of science as such is expressed in certain primitive concepts *that <are> directly constitutive of the idea of science*, like, for example, the concepts meaning and object, truth and falsehood, and so on. And to these primitive, directly constitutive concepts belong *certain fundamental principles* grounded in the essence of these concepts *as prerequisites for the possibility of science in general*.

Now, what is to be derived *a priori* from this original supply, what is to be perspicuously produced for dependent, complex concepts purely on the basis of their essence and derived from it for systematic theories still belongs, even if *indirectly*, to the essence, to the possibility of science in general, *inasmuch as eliminating it would eliminate the possibility and validity of what is directly constitutive of science*. This is why, though, such dependent concepts, or concepts specialized within the generical essence and the deduced laws grounding there need not occur in every particular science, be found in every utilization. For example, no science without meaning. What makes objective validity possible is meaning in its different basic forms of concept and proposition. Therefore, the idea of meaning, and concept and proposition, are constitutive of the idea of science in general.

Furthermore, the *a priori* theory of meaning that systematically investigates what belongs *a priori* to the essence of the meanings is *eo ipso* science-theoretical. *This is why, though, not every form deduced meaning-scientifically need actually occur in every science. In terms of a priori patterns, the complexity of meaning forms is infinite. However, every science contains only a finite number of propositions and forms*, at least in terms of its actual supply. Therefore, not all occur. And, even for the infinite development of science, one cannot say that all ideal meaning forms actually must occur.

The same is the case for the forms and laws grounded in the essence of the idea of object in general, the development of which is the job of the *a priori* theory of objects. It is *eo ipso* science-theoretical precisely because every science as such deals with any objects whatever. Therefore, what essentially, generally belongs to the idea of object is the property of theory of science. But, the special forms in which what is objective in a specific science is theoretically unfolded in virtue of its material particularity are not all possible forms in general. Not every conceivable logical object form will have to be realized *in concreto* in each science. Theory of science is general science of the *a priori* essence of science as such, therefore, in accordance with its extra-empirical holdings. But, it is anything but an empirically comparative science concerned thereby with gathering together the particularities and forms actually occurring in common in all sciences. That would give knowledge of slight value and just not secure for us the insight that what is to be observed as common in the actual developed sciences is science-theoretical in the genuine sense, must necessarily directly or indirectly belong to what is universal in science in general.

That, therefore, also holds of the science-theoretical sphere that we called formal-ontological, and especially of the mathematical disciplines. From the infinite abundance of mathematical truths, every science can realize *in concreto* what comes its way, and in proceeding systematically can use as much of this abundance as ever it wishes, as it considers good. In this, the different sciences behave differently. Some use much, others little, mathematics. Not every one even deals with a sphere of objects for which the forms of mathematical determination would be especially fruitful and be so to the same extent. *On principle, however, mathematics and pure logic in general constitute a supply of the truths that each science can freely use.* It is a supply of pure truths of the understanding that contain nothing of the special subject matter conditioning any specific relationship to special fields of knowledge.¹² Rather, they are thoroughly, purely grounded in mere “thinking forms”, in the essence of the formal meaning and object thoughts that resemble molds that must first be filled with some substance so that material thoughts referring to material objects can result.¹³

¹² Two sorts: (1) Pure possibilities; (2) Exclusion of all material *a priori*.

¹³ Possible material objects. The possibility propositions are “applied” to actual objects: The thesis of reality can not be poured in.

- Thinking is precisely constituted in such a way with regard to its* 62
ineradicable essence that it must necessarily operate within such
forms, and objectivity is constituted in such a way that, if it is to
be thought and theoretically known, it must be grasped within the cor-
 5 *responding ontological forms.* If we want to play with Aristotelian
 terminology, then we can say no ὅλη without μορφή, no matter with-
 out form, and vice versa. If, however, in pure thinking we bring out
 the form, meaning, if we think about the matter, what determines
 concreteness, in undetermined universality, and if we make the transition
 10 from reality to possibility, then we recognize that there are truths that
 hold for each and every thing, for everything “in general possible”
 insofar as it is grasped in exactly such and such forms.

- On the other hand, there are truths that do not hold in virtue of
 grasping what is material in one form or another, but hold because the
 15 form is precisely filled with this matter, that consequently hinge on the
 matter. That, when *a* is more intensive than *b*, *b* is less intensive than *a*
 is an inference form, but not a purely logical one. It is grounded in the
 particular nature of intensity. For any relation, it does not make sense
 for us to replace any relation whatever, for example, more intensive, by
 20 the indeterminate thought of any relation in general. If we pursue the
 matter, the “subject matter”, as it were, if we ask what holds for some-
 thing constituted in this way, something materially determined in such
 and such a way, then we are operating within the material sciences.
 Since, however, what makes <up> materialness, the ὅλη, is necessar-
 25 ily grasped in a form, and form also always plays a part in knowledge
 of what is material and contributes to the advance of knowledge, form
 simply must be taken into consideration and it must be asked, and
 indeed in scientific universality, which truths are grounded in the pure
 thought forms, in the first place, which ones these are and how they
 30 are to be systematically determined. And this science is precisely the
 theory of science that, precisely because it excludes the material mak-
 ing up what distinguishes the different material sciences, is a science
 that takes everything that is in principle and essentially in common to
 all sciences as its point of departure and the object of its theoretical
 35 investigations.¹⁴

¹⁴ That is not sufficient, because it does not suffice for the difference between empirical and *a priori* sciences.

If we investigate the legitimate relations belonging to two forces 63
 p_1, p_2 acting at one material point, then we are engaging in mechanics.
 If, however, we investigate what belongs to the idea of 2, then we are
 engaging in theory of science. For 2 can be two forces, two colors,
 5 two sounds, two states of mind, and whatever else. Two is one and
 one. One is any object. What is materially determinant is thought
 in indeterminate universality. In practice, it can then be filled with
 any matter whatever. Therefore, in mechanics I apply the intellectual
 object form one and one to forces, in acoustics to sounds, etc. And so
 10 it is with everything formally mathematical.

At the same time we see: The possibility of a formal theory of
 science is based on the possibility, lying in the essence of thinking,
 of distinguishing between *material and purely formal thoughts*, or
 on the possibility, wherever a material thought is given, of excluding
 15 everything material in it, everything in it making up materialness, by
 introducing what is indeterminate everywhere it occurs, the thought
 of something in general, which then immediately acquires the form
 object, property, relation, etc., depending on the constitutive meaning
 of the thought concerned.¹⁵

20 For Socrates and Plato, I put one object and one object. For one
 human being and one human being, I put one something determined
 by a certain species property α and another determined by the same
 property α . For the predicate presentations “red and round”, I put
 α and β , i.e., characterized in a certain way and characterized in a
 25 certain other way, etc. This is how the purely logical forms arise that
 are simply designated by one and one, one A and one B , X is α and β ,
 X stands in relation ρ to Y , etc. These formal thoughts are formal uni-
 versalities in whose essence universal laws are grounded. And these
 laws then hold unconditionally and necessarily for the entire sphere
 30 of determinability of what is indeterminate occurring in the forms.
 Number propositions hold for numbers in general, and every number
 is a complex of indeterminates, meaning that they hold no matter how
 the units may be materially determined. A proposition for character-
 istics holds for every characteristic. Indeterminate characteristics can 64
 35 be replaced by any determinate, material, actual properties, etc.

¹⁵ Empirical invariableness is also ruled out.

This formal character consisting in material indeterminacy and ruling out existence causes the *lifting of the theory of science above all material sciences*, causes it to be a *common property* for all, something necessarily grounded in the essence of science as such.

- 5 This does not by any means imply, however, that all forms must occur in all sciences. The objection to the science-theoretical character of mathematics is therefore feeble. It is proven, just as its formal character in the genuine sense is proven.

- Naturally, fitting formal mathematics into the theory of science
10 does not signify anything that alters the content and method of mathematics itself and even possibly could cause a reform of it. It only signifies knowledge that is extremely meaningful from the philosophical point of view regarding the position of mathematics in relation to the other, material sciences and its position in relation to the old
15 formal logic.

<§17. *The Theory of Science's Self-referential Nature. The Ideal for the Constructing of Pure Logic*>

- In a certain respect, we have not yet completely cleared up the doubt about the justifiability of our fitting mathematics into science-theoretical logic. Of course, not all science-theoretical forms, laws, theories have to play a role in all sciences, even though they are the “common property” of all. But is it not obvious that mathematics itself is a science, that it proceeds logically, and that the customary view is for this reason justified when it says that *just as every other*
25 *science mathematics is subject to logic*? It is classified as a science subject to concepts and principles that by its very essence make science possible. It is subject to the theory of science, therefore, is not itself theory of science.

- We answer: What is said there is really obvious and indubitable—
30 except for the conclusion. For it is false that mathematics does not for that reason itself belong in theory of science, is not itself theory of science. Clarification of the situation will immediately lead us to a further important characterization of the theory of science, and important knowledge about this will, moreover, result for us regarding
35 the natural organization of the theory of science that will make

the special position of mathematics and the fuller, more fundamental importance of the old formal logic understandable.

We engage in the following reflection. The objection put forward there surely does not merely concern the mathematical discipline, but all disciplines one wishes in whatever <way> to admit under the heading of theory of science. If one in general admits a pure logic as science (and how is one not to?), then this science is subject to the concepts and principles and theories that are grounded *a priori* in the essence of science as such. If this is so, however, then the objection to fitting pure mathematics into logic is no longer of any importance. We want now, however, to take greater interest in the self-referentiality of logic and to examine the remarkable fact of this in greater detail.

Pure logic as science, however narrowly one may wish to take this, for example, simply as the complex of the syllogistic theories of traditional Aristotelian logic, is of the same nature as any mathematical discipline. It is truly an *a priori* discipline in which the formal basic concepts directly ground certain axioms that are primitive, directly valid laws: the principle of contradiction, of double negation, as well as the primitive laws of inference. And these primitive laws are the foundation stones of theories resting upon them in which ever new laws of inference are indirectly proven. Already, the ordinary law of chains of inference, for example, all *As* are *B*, all *Bs* *C*, all *Cs* *D*, therefore all *As* *D* is not a directly understandable law, but one to be proven. Here, the proof is, of course, supplied in 2–3 steps and hence practically a matter of course. However, if one set oneself the task of constructing the system of all possible laws of inference in the syllogistic field, therefore, of creating a theory allowing one to deduce the pertinent laws of inference in combinatory universality for all the premise forms falling within the compass of this field and for arbitrarily many premises, then this is no longer a matter of course. Setting and resolving such a problem in theoretic universality is, however, the scientific aim of logic in the sphere of syllogistics. If we now think of this theory as actually carried into effect, then as a theory, as a substantiation and meaning unit, it is obviously subject to the universal laws grounded in the essence of meaning in general and, inasmuch as it is hereby itself again syllogistically completed, precisely to the laws of syllogistics.

That is a highly remarkable and yet completely obvious *referring of pure logic back to itself*, which stands out in comparison to all other sciences and is grounded in the singular nature of its field of investigation. Every material science has a specific subject area,¹⁶
 5 grasps things, properties, and relations of things by means of specific concepts that leave their imprint, by means of material concepts. It speaks of animals and plants, of historical events, of natural forces, masses, distances, etc. *In this sense, pure theory of science does not have any field at all.* It refers to each and every thing, therefore, to
 10 every field in general, but in completely indeterminate ways, excluding all material concepts. Its basic concepts (object, property, relation, genus, species) and, correlatively, the meaning concepts (concept, proposition, object, predicate, etc.) are, therefore, of a completely different nature than the concepts of the material sciences. And,
 15 they already exhibit the self-reference that is characteristic of what is purely logical.

The concept of concept has concepts as its object and is itself a concept. The concept object has as its object objects in general, but the concept itself is really also an object, etc. If, therefore, pure logic
 20 proclaims a law for meaning in general, or it carries out a theory for meaning in general, then the law itself is, on the other hand, again a meaning, the theory, a web of meanings. And, subject to every universally valid law for meaning in general, for example, proposition in general, proclaimed by logic is, therefore, also every one of the
 25 propositions upon which the logical theory is based. And, when logic grounds laws for syllogistic inferences in general, the syllogistic arguments by which these laws are proven will also be subject to these laws. And in a completely universal way, if we think of a science of thought forms and laws of thought in general in the sense of
 30 our theory of science, then each of the forms making up the theory of science itself must be subject to those it deals with, upon which it pronounces laws, and these laws must at the same time govern pure logic itself.

These facts exclusively characteristic of pure logic and belonging to
 35 its essence do not, as I immediately want to say to reassure you, do not imply a logical circle. For, the principle of inference to which any

¹⁶Specific subject area: a field of existence (*Daseinsgebiet*) or a field of essence.

- inference actually carried out is subject is not a premise of the inference. If I conclude, All human beings are mortal, Caius is a human being, therefore Caius is mortal, then this inference is complete. The conclusion follows purely from the two premises and from nothing else. I can lift the inference principle (the law that universally from two propositions of the form “all A s are B ”, “ S is A ”, a proposition of the form “ S is B ” follows) out abstractly afterward and, grasping its Evidenz, can also see by this that the present inference actually resulted in due form. However, the principle is not a premise. It is really also easy to see that if we formulated the principle and drew a conclusion not merely in accordance with it, but based on it, nevertheless, the new inference complemented by these additional premises would itself have to have a principle of inference, and that in so doing we would fall into a ludicrous infinite regress. Therefore, it is also clear regarding inferences carried out by pure logic that the logical laws presenting the principles for the inference concerned are not premises. Therefore, it is not a logical circle when logicians seek to prove principles of inference and in each step in their proofs draw conclusions that are subject to principles.
- On the other hand, one will of course have to say that the deepest justification for any reasoning process lies in its not being accepted unreflectively, but in its being traced back to its principles, so that each step in the reflection proves to be correct and, indeed, correct on principle. Now, it would be detrimental if, in reflecting on their own theoretical steps, logicians ran into principles of inference that they had not previously established and fully substantiated. The *ideal* therefore arises of avoiding circularity, not only in the constructing of pure logic, which would be a logical error, but also to order the deductions in such a way that no principle is at work in the form of each substantiating step that has not been previously formulated in the theoretical content of the exposition, whether laid down as an axiom, or already demonstrated.

- What this idea makes feasible, and what especially interests us here, is the fact that *primitive step in reasoning* and *axiomatic principle* clearly overlap to some extent. A simple step in argumentation, a simple inference, is one in which what is deduced lies directly in the premises, therefore, can be seen as implied in them. If this is the case, however, then the pertinent principle, the formal law of argumentation, is direct, can be seen as directly valid, an axiom (compare the example above).

We make use of this. Pure logic contains, as does every science, its theories that are far-reaching and ultimately very far removed from perspicacious thinking, as are, for example, the theories of higher algebra and analysis, the simple understanding of which requires many long years of preparatory work. However, the principles to which every single step in these theories and disciplines is subject of course belong in the unity of the same science, but do not belong in its upper reaches and at its pinnacle, are not laws that are to be theoretically proven by complicated, difficult reasoning, but belong to the direct basic tenets. They are axioms. They are pure truisms.

<§18. *The Natural Ordering of the Formal Disciplines*>

<(a) The Category of Proposition as the Highest Logical Category>

We now proceed further. It is now a matter of bringing to light *essential structures in pure logic* making understandable, <on the one hand>, the special position of the old formal logic as a more fundamental discipline and, on the other hand, the special position of pure mathematics as an inherently later discipline to be developed in its own right.

If we now take a look at the axioms upon which the entire edifice of pure logic, including the pure *mathesis*, rests, we observe that they group together. They are grounded in the primitive concepts constituting them, and these primitive concepts have a certain sequence of levels of rank, of effective significance. That determines, however, *a natural ordering of theories and disciplines*. By their very nature, the formal theories making up the core content of traditional Aristotelian logic are prior to the purely mathematical theories, to pure set theory, to pure arithmetic, to pure combinatorial analysis, to pure theory of ordinal numbers, and so on. By their very nature, I say. It would be wrongheaded to rank mathematics before the old formal logic. And, therein lies the justification of the view according to which formal logic is related to arithmetic and mathematics in general in the same way as to any other science. Of course, people did not yet have in mind the broader, full concept of formal logic, but only Aristotelian syllogistics, for <which> this is entirely correct, just that people at the same time failed to recognize the essential, legitimate connections

that ultimately required scientific unity for pure mathematics and old formal logic. What kind of natural order is this?

There are logical concepts, or groups of concepts belonging together, that are of such far-reaching significance, have such extensive
 5 dominion, that we can conceive of no theory, really no inference, no proposition without concepts from this group coming into consideration. There are other groups of concepts that are certainly still purely logical, but do not naturally have to come into consideration in every theoretical sphere, however restricted. This is easy to recognize from
 10 examples.

Every science, the whole theoretical content of a science, is utterly composed of meanings, and meanings enter into consideration everywhere with regard to the validity and lack of validity of their objective reference. They are composed of propositions as units of
 15 meaning and validity that are complete in themselves. It is clear that, accordingly, concepts like proposition, valid and invalid proposition, or truth and falsehood as well, must be applicable always and everywhere. Naturally, belonging here are concepts expressing the possible constituents of propositions in formal universality, like subject
 20 and predicate, universality and particularity, singular and plural. In general, belonging here are all forms of propositions and possible systems of propositions that, irrespective of any specific cognitive
 70 content, represent the possibilities lying in the universal nature of the proposition of capturing arbitrarily determined contents in propositional form, therefore, of capturing them in meaning units that by
 25 their very nature lay claim to validity or truth.

Every proposition as such declares that something is or is not. Precisely in so doing, it lays claim to validity. However, the universal expression, A proposition declares "that something is or is not" covers,
 30 a variety of particular cases that are expressed in different forms, forms grounded in the universal nature of the proposition as a unit positing an objectivity. Propositions, therefore, particularly declare that something exists or does not exist, that quality α is attributable, or not attributable to an object, that if quality α is attributable to it,
 35 then quality β is also attributable to it, or that it is then not attributable to it, or is not attributable because either one quality or the other is attributable to it. Again, that if the quality α is attributable to an S , quality β must also be attributable to a Q , etc. And, to these propositional forms and to the forms of their involvement in compound

propositions then pertain laws grounded in the nature of these forms, laws of validity or lack of validity on the basis of mere form. It is clear that these form concepts and accompanying laws must be of the utmost universality. Wherever propositions are stated, where propositions are linked to theoretical structures, to inferences, proofs, theories, these forms occur *in concreto*, and the accompanying laws of validity are consequently applicable.

- In contrast to this, concepts like whole and part, relation and order, and even set, cardinal number, combination, and so forth, recede into the background. They are certainly grounded in the universal idea of objectivity, and that ultimately makes them applicable in every possible field of knowledge, but they naturally rank in second position. *They do not express essential forms of propositions, and the laws pertaining to them are not laws for truths grounded in the essence of the proposition in general.* Rather, they *a priori* express possible object prototypes and what is grounded in their formal essence. After that, a parting of ways ensues. If we call the primitive concepts of pure logic *logical categories*, then they group around the *proposition category as highest category*. This separates into a series of separate categories of propositions, and these differ in terms of their formal constitution. Various formal elements occur there which, conceptually differentiated, produce a series of related categories of formal constituents of propositions, e.g., subject, predicate, attribute, is, not, if, then, and, either, or, plural, singular, all, some, a, etc. That builds the propositional categories: existential proposition, categorical, hypothetical, disjunctive proposition, conjunctive proposition, etc. Designations are partly lacking there.

Turning to the Aristotelian word for proposition, ἀπόφανσις, we call the sphere of these categories *apophantic categories*.

- I. And, by apophantic logic, we understand the totality of laws of essence pertaining to the idea of *apophansis*, therefore, of proposition.¹⁷

¹⁷ But, I nevertheless speak later on of a theory of forms, therefore, also theory of laws of states of affairs that naturally cannot be separated from the theory of propositions. It would be different if we considered “situations of affairs”. Or, by states of affairs, are situations of affairs (which are surely the only objects that can be “put on the same footing”) being referred to everywhere here? To them pertain the laws (as what is identical in different apophantic meaning configurations). Later on, apophantic logic is also actually associated with states of affairs.

- According to what has been said, this is a matter of a region of laws making up the *very most universal, and plainly indispensable, basis for establishing norms for thinking*. And apart from establishing norms, these are laws without which any talk of truth and falsehood, of attribution or non-attribution, of assuming and inferring, therefore of “yes” and “no”, of “if” and “then”, of “either”, and “or”, etc., would no longer have any possible meaning.

<(b) The Two Levels of Apophantic Logic as Pure Grammar and as Theory of Validity>

- 10 Two levels can be discerned here.

1. The lower one concerns the meaning forms belonging *a priori* to the essence of meaning or, which is not an essential limitation, of the proposition, *without taking into account truth and falsehood*. *Prior to the purely apophantic theory of laws is a theory of forms, a simple anatomy and morphology of propositions*. Whether the propositional forms possible *a priori* are possibly true or not is accordingly not asked. For example, occurring there is the form *S* is *p* and at the same time not *p*, as well as the form *S* is *p* and the same time *q*. We shall also call this morphology *pure grammar*, or consider it to be in pure grammar, because it lays down something *a priori*, therefore, necessarily common to all languages in contrast to the variety of empirical differences of the different languages, to differences with regard to current vocabulary, but also grammatical forms and rules.
- 25 The thought forms belonging to the essence of the proposition must somehow take effect in each language. For, in each language something is, of course, supposed to be expressed. Each statement, though, has an identically ideal sense, precisely what we called a proposition in the logical sense. This proposition finds expression in each language in a different way, but since each one is supposed to express it, it must some <how> have a means of activating the propositional form with it and of expressing it, whether completely or incompletely. In any case, the theory of forms belonging to the essence of the idea of proposition provides the ideal scaffolding that is clothed in empirically linguistic material in different ways in the

empirical languages. One must first of all recognize this scaffolding to be able to construct an empirical grammar in the right way. The questions first acquire meaning through the relationship to the ideal forms of pure grammar, how German, Chinese, Tungusic, and so on, express “is”, “not”, the hypothetical form, the plural and singular, etc. It may be that a language does not have its own inflexions, prepositions, etc., to express the same thing that we express by such linguistic means. But, the thought is there, even if the form is lacking, and must be there, because otherwise the meaning of the statement is lost.

Since in proposition forms arranged in a purely grammatical way, the meaning components are assembled in specific ways and it is readily apparent that not some arbitrary rearrangement of the components is yielding yet another proposition, the proposition forms *eo ipso* express laws. The meaning components, or the components of the proposition categories, constitute a matter that can only be connected and fit together in specific ways, or else no unitary whole emerges, no unitary meaning results. And, precisely the same holds of relatively unitary parts in propositions, for example, complex subject thoughts or predicate thoughts. A pattern of separating unitary meaning from nonsense, therefore, prevails in the meaning sphere independently of truth and falsehood. This is the purely grammatical pattern.¹⁸

2. The sphere of the *genuinely logical laws* is then based upon the purely grammatical sphere. In the sphere of meaningful (therefore purely grammatically established) forms, they separate those propositions that produce or do not produce possible truth according to their form, and also those <that> are valid and not valid *a priori* and purely on the basis of form.

Apophantic logic is essentially the scientific realization and completion of the old formal logic. For, the latter essentially limited itself to problems of the sphere belonging here, of course, without

¹⁸ Verbally, what is purely grammatical in this sphere is called pure syntactics. Belonging to pure grammar are also the basic concepts of the pure Mathesis, the basic concepts of the higher sphere of pure logic. Verbally, with more detailed remarks.

grasping their distinctive nature and without solving them with the theoretical universality required.

<(c) Set and Number in Apophantic Logic and in Set Theory
and Arithmetic>

- 5 II. Apophantic logic makes up only a small area of pure logic in the broad sense. In the broader area, the mathematical disciplines in the usual sense (however, to the exclusion of geometry, kinematics, and the mathematico-physico disciplines) appear to us immense in range and wealth of content in comparison. Common to all of them is the fact
10 that they fit into the idea of a *formal, a priori ontology*, and precisely therein also lies the grounds for the exclusion of those other mathematical disciplines whose basic concepts of space, time, force, and so on are not formal in the purely logical sense, as we discussed earlier at length. Needed now, however, and this is not an entirely simple matter,
15 is a *segregating of apophantic logic distinguishing it from the formal ontology of the extended sphere*. In certain ways, in virtue of the correlation of the concepts of proposition and state of affairs, concept and object, apophantic logic also contains a formal ontology.

- From the standpoint that we adopted for the definition of apophantic
20 logic, the idea of proposition was the basic category. In more common parlance, we could also say the idea of statement, of predication, and this insofar as it is a statement that something is or is not, the idea of a claim to validity or truth. What is grounded in the essence of the proposition as unit of validity is to be investigated. In certain ways,
25 therefore, it is a matter of a logic of truth. Truth is simply true proposition. If we want to investigate what is grounded in the essence of truth, then we must go back to the propositional forms to be distinguished in essential ways. We therefore need a theory of forms of proposition. And based upon this as a higher level at which it is genuinely
30 aimed, is the logical theory of laws: the laws of validity and non-validity grounded in the essence of these forms. If in virtue of the correlation between meaning and objectivity, we then undertake a *change of standpoint*, if we now therefore adopt the standpoint on the side of objectivity, *then corresponding to the theory of forms of propositions is*
35 *a theory of forms of the corresponding states of affairs*.

- We can then proceed in approximately this manner. In every statement, something is stated about any objects whatever. If we leave all givenness and determination of objects out of account, if we do not restrict ourselves to any materially determined domain of objects, then we can ask: What can be stated about object in general and, first of all, in which forms can one make statements about object in general? And, if we rule out the idea of statement, then we can ask: Which forms of states of affairs are possible with respect to any objects $A, B...$? Then, the answer approximately reads: I can state of any object A that it exists; or: A possible form of states of affairs is “ A exists” or “does not exist”. Again, A has the quality α or does not. A has the property α and the other property β . A stands in relation ρ to B . A is the same as B or different from B . A and B are α , are the same as C and D , etc. Or, also an α and an α are m , 2α are m , several α s are m , etc. In addition, the hypothetical and disjunctive forms: if something is α , then it is β ; if a is α , then b is β , and so forth.

- We are, therefore, inquiring into the forms in which states of affairs about objects, whether about determinate or indeterminate ones, can exist *a priori*, purely formally. And, the laws aim at these objects and at the properties and relations by which they can, moreover, be characterized in formal indeterminacy. There numbers also occur as forms, and sets do too. The and-form, as when I say Socrates *and* Plato, or formally, “ A and B are p ”, of course also belongs to the primitive forms. And again, one α and one α are p , several α s are p , and naturally then also, 2α s, 3α s, etc. are p . Numbers can figure on the predicate side too. They can function formally in different positions in the state of affairs.

- Nevertheless, here in the apophantic sphere, in the sphere of propositions and states of affairs (see below), set and number function in a completely different way than in arithmetic and set theory. It is one thing <to make> statements about objects, say, an attribute α , in which number characteristics occur as form, and thereby dependent, and another thing <to> make statements about numbers as such in such a way that the numbers are the objects. If I say, A and B and C and D are p , then I have combined the objects $A...D$ by “and”. But, the “and” is form here and grounds the unitary form of the plural predication. I am judging objects A, B plurally.... I am not making a judgment about the whole set to be formed out of them. I do that, for example, when I say, the set formed of the elements A, B and C is part of the set formed of

the elements *A*, *B*, *C* and *D* containing “more elements”. Then, I make the set into a subject, into an object about which. In the present state of affairs, sets are the terms. In the preceding one, the individual objects themselves were the terms of the predication. Therefore, in set theory, we make judgments universally about sets that in a certain way are higher-order objects. We do not make judgments directly about elements, but about whole totalities of elements and arbitrary elements, and the whole totalities, the sets to be precise, are the objects-about-which. *Corresponding to every plural is a set, but in the theory of proposition forms, or forms of states of affairs, the set does not occur as object.* In it, the objects-about-which are thoroughly indeterminate *A*, *B*... Rather, only the plural occurs in it, which constitutes a form of predication about arbitrary objects.

Likewise, wherever plural predication is present, corresponding to the plural is a certain (and if the plural is indeterminate, an indeterminate) cardinal number. But, I must once again deal with a new thought configuration. *In the theory of forms of propositions, number only occurs as form, but not as object about which judgment is made.* Each form in a statement, or in a proposition *or state of affairs*, is something dependent. We can associate an object thought with it. For example, in propositions, “is” is something dependent. We can make it independent and form the thought “being”. With the dependent thought form “same”, we can we associate “sameness”, etc. But, new objects emerge from this, higher-order objects, hypostasizations of forms that originally help to constitute objectivity in lower levels, but are not objects in their own right. For “God is just”, I cannot say “God the being just”. That makes no sense. Nor, for “*a* is the same as *b*”, say “*a* sameness *b*”. And, so “and” and “2, 3”, therefore, certainly occur among forms after the fashion of two men, three houses, but sets as objects, numbers as objects-about-which do not occur. *Apophantic logic deals with the forms of propositions, or states of affairs* by asking in which forms objects are conceivable as such states of affairs and then which laws for the existence of states of affairs are valid in virtue of their form.¹⁹

¹⁹ Here propositions are really pushed to one side once again, though, (1) propositions (judgments) in terms of their forms, true propositions in terms of their forms; (2) objects, states of affairs, situations in terms of their forms as what is considered, then truly existing objects, etc.

- Set theory, however, asks what is valid for the peculiar higher-order objects that we call sets there. For example, two sets can each be joined into a new set. Two sets a, b are each related to one another in such a way that either a is part of b or b is part of a , or that they intersect (a set having a part in common), or that it turns out that they are identical, coincide. *Such truths and those derivable from them do not belong in apophantic logic, in the logic of predication as such.* They form a field of their own: set theory. And, likewise, grasped objectively, cardinal number as the formal determination form peculiar to sets gives a field that does not belong within the framework of a simple *theory of objects in general and the forms of their states of affairs*. Only the forms of the plural numerical predication about objects as such belong within it. Arithmetical, though, are propositions like: “Any number can be added to any number”; “If a is a number and b a number, then $a + b$ is as well”; “Any number can be decreased or increased by one”. “The numbers form a series continuing from 0 *in infinitum*”. Then, the different laws of addition, subtraction, multiplication, etc. 77

<(d) Apophantic Logic and the Higher Ontologies. All of Pure Logic as a Formal Ontology>

- From these remarks, you see at the same time how intrinsically apophantic logic and pure theory of numbers and set theory are related to one another. This is an *a priori* connection. Certain possible states of affairs forms are grounded *a priori* in the essence of objectivity in general, and plural occurs among the constitutive forms. And, again, belonging to the essence of all that is that each form determination can be made into an object of its own, a higher-order object, or that corresponding to each one *a priori* is such an object. And accordingly to every plural form too. *The laws for all these higher-order objects form their own branches of pure logic, but branches of the trunk of the one pure logic. The basic trunk is apophantic logic. The branches are, though, united a priori to the basic trunk.*

- The universal theory of relational states of affairs forms will also belong to apophantic logic. Ramifications result, however, when investigating the different types of wholes and of relationships of parts and relationships of combinations, as well as when dealing with genera and species and lowest differentiae, and so on.

A ramification of pure logic results with the differentiation of the idea of wholes and the idea of wholes of one and the same type, with the further qualification that the latter wholes be divisible into equal parts that in return belong to the same type.²⁰ In this way, the primitive concept of quantity arises to which the concept of number can, at least formally, be subordinated, namely if one puts the empty and-connective that joins the number units under the same heading with the relevant relations. 78

In the whole of arithmetic and set theory, just as in the theory of quantity, the concept of whole and the accompanying correlates is a category of paramount importance, because it is precisely a matter of *a priori* theories of objects. But quantity, and prior to it whole, are concepts not having their origin in number theory and set theory. They have their origin in the formal essence of an object in general, to which set and number, as well as whole and quantity, belong. The pure mathematics of quantity and number can also be called pure logic of the quantitative. They certainly belong, due to essential laws, within the context of the purely logical.

A ramification of the apophantic theory of relation forms is the theory of series and of quantities whose parts are not simply joined in an orderless fashion like an aggregate, but in a fixed order. This again yields mathematical disciplines of its own, the theory of ordinals and the theory of ordered magnitudes, of what is quantitatively governed.

Perhaps we are justified in saying on the basis of these reflections that the purely logical disciplines rising above apophantic logic are characterized by the fact that they have as their field of investigation the higher-order objects grounded in the essence of the directly logical forms. Because the higher-order objects refer back to objects lying below that remain fully indeterminate in the purely logical universality of higher-order objects, the pure laws valid for these objects

²⁰ We do not, however, obtain the concept of the whole in the same way as that of, for example, number. Therefore, I have to ask whether that does not already belong in ontology. Just as my entire *<Logical> Investigation III?* New objects are constituted through nominalization. Objects in general, whether they are materially unitary or have developed logically, however, have their primitive object concepts, their primitive forms, And “wholes”, etc. belong there. “Metaphysical”, just insofar as metaphysics is equated with ontology, and then, of course, as a distinction is made between formal and material, *a priori* and *a posteriori*, metaphysics.

maintain a relationship to the broadest ontological sphere of all. Accordingly, the *whole of pure logic is to be understood as a formal ontology*. The lowest level, apophantic logic, investigates what can be stated in possible form *a priori* on the first level about objects in general. The higher ontologies are concerned with purely formally determined higher-level object formations like set, cardinal number, quantity, ordinal number, ordered magnitude, etc.

- 5 It seems that with this consideration, real progress has been accomplished relative to my previous explanations in the *Logical Investigations*. Yet, various comments would still be needed to verify this conception for all fields of formal ontology. 79

<§19. *The Theory of Manifolds as Science of Theory Forms*>

- In the reflections up to this point, we have distinguished between two layers of purely logical disciplines. A third and highest layer now follows, thanks to which the idea of a universal theoretical ontology is broadened once more. It is a matter of what modern mathematicians rather often, certainly not very clearly, refer to by the name *theory of manifolds*, and is even less clear when they rather often speak of axiomatic mathematics.
- 20 As concerns the latter term, the usual concept of axiom that has been commonly and universally used in philosophy from time immemorial is in this case completely abandoned, and the term theory of manifold is also questionable, since set theory is also always included under it, which according to our careful discussion belongs in the other layer. In my *Logical Investigations* I sought to define the most universal conception of this discipline and described it as the science of theory forms.
- 25

<(a) The Independence of Calculational Technique
from Number and Quantity>

- 30 Let us begin with the universal concept of mathematics. First of all, we notice that what the heading of mathematics in the usual sense embraces as formal ontological disciplines does not, as already emerges from what has been said up to this point, take up the entire

ontological sphere. For, mathematics in the usual sense is tied to number and to numerically specifiable quantities. In universal ontology, however, we find domains that have nothing to do with numbers, that are not open to quantitative determination. So it is with the most universal distinctions and laws grounded in the essence of wholes, of the combining of independent and dependent elements into higher-order units, especially everything pertaining to the distinctions of genus, species and individual, and so on. Here, still vast fields are awaiting purely logical exploration. 80

- 10 A moment ago, I said that mathematics in the usual sense deals with quantity and number. This involves a restriction that is in no way required by the nature of the matter. In recent times, mathematics has itself gradually begun to free itself of this restriction. *The essential thing in mathematics is not the objects, but the kind of method it*
- 15 *has*, which naturally flows into a purely symbolic, hence, ultimately calculational, technique. Calculational technique is, however, by no means in any way tied to quantity and number. It finds a natural home in every sphere of purely logical substantiation, therefore, in every purely deductive discipline. One can trace operations with
- 20 geometrical objects back to arithmetical operations, because these objects are by their very nature apprehended as quantities and so can be characterized by numerical values or arithmetical functions. In their quantitative determination, the properties and relationships of geometrical configurations find their fully characterizing expression in
- 25 arithmetical functions and relations. One can, though, also proceed more directly. Without resorting to the quantitative nature of geometrical configurations, one can start with the primitive relational dependencies of basic geometrical configurations, establish them as axioms, and then purely deductively draw the consequences, derive
- 30 the dependent, increasingly complicated spatial configurations, and seek out the laws governing them. In so doing, one can eliminate all concepts of measurement and all quantitative determination in the most vast spheres of geometry, and a geometry develops in which there is finally no less calculation than in analytical geometry, but
- 35 the calculation is not with numbers, but with configurations. Two centuries ahead of science, Leibniz's genius envisioned this possibility that only became a reality in the nineteenth century.

The calculational method of substantiation finds its natural application everywhere where, on the basis of basic concepts and basic principles

accompanying them given once and for all, nothing further is intended than to master in systematic deduction, therefore purely logically, all of the increasingly complicated concepts and laws included therein. 81

- 5 That concerns, however, all purely deductive, as well as all purely logical disciplines and, so far as they are in general systematically put into action, they are at the moment all constituted as mathematical disciplines, for example, even syllogistics. One can certainly hear very bad things said about so-called mathematizing logic on the part of parochial logic.²¹ But what can logic do about the fact that average logicians understand so little about mathematical methods? Their protests do nothing to change the fact that the sole possible form, even for the exact solution of syllogistic problems, provided only that they are posed with sufficient universality, is the mathematical one.

- 15 One can calculate with concepts and with propositions in the same way as with lines or forces or surfaces, etc. Naturally, it makes no sense to measure propositions using numerical values. The calculation is, therefore, not calculation with quantities and numbers. But, as we already said, they do not belong to the essence of calculation. To calculation only belongs being purely logically deduced. Where thinking is restricted to a domain circumscribed by fixed concepts, where belonging to these concepts are primitive laws from which ever new consequences can always be derived in infinite complexity for the complete domain, the scientific process automatically leads to calculational treatment. Belonging to this (which, of course, *in praxi*, is the greatest problem) is first having completely gathered together and rigorously formulated the basic principles, and then introducing an algebraic symbolism that bestows rigorously distinguishing expression on all concepts and parts of concepts.

- 25 Thus, in arithmetic, mathematics designates numbers in general by letters, different numbers by different letters, the same numbers by the same letters. The primitive combinations permitting the derivation of new numbers from numbers are indicated by new signs, by connectives +, −, •, the relationship of equality retains the well-known sign =, etc. In this way, symbolic expression contrives whole propositions,

²¹ In comparison, Riehl has spoken warmly in favor of mathematical logic. Compare the Teubner volume <Compare A. Riehl "Logik und Erkenntnistheorie" in *Systematische Philosophie*, P. Hinneberg (ed.), Druck und Verlag B. G. Teubner, Berlin and Leipzig, 1907.>

in the first place, principles like $a+b=b+a$, $a+(b+c)=(a+b)+c$, etc. It then follows, for example, that a sum of arbitrarily many summands, which can themselves again be sums, and sums of sums, is independent of the order in which they are added, that a product.... 82

- 5 Rules in general are given for operating with sums, products, quotients in arbitrary combination, etc. And, all these derived propositions are used as mechanical rules of calculation. There is finally no longer any need to think about the fact that one is dealing with numbers. Letters are manipulated like game tokens for which rules
- 10 of one form or another are valid. The reason for this, however, lies in the fact that each step is a purely logical one, and we of course know that when an inference is carried out correctly, it is subject to a principle and that, moreover, the particular subject matter stated in the terms varies freely. If I have, therefore, a web of inferences, then
- 15 the system would remain a proper substantiation system if the words or the algebraic signs suddenly meant something entirely different, for example, not numbers, but lines, or whatever, provided only that the initial propositions for these new meanings yielded a valid meaning. Therefore, with letters, there is actually no longer any need to think
- 20 about numbers at all. If they mean anything having a meaning at all, and if for these arbitrary objects propositions are valid for one form or another shown by the initial propositions of the deductions, then a theory of the derived form is also valid. I can, therefore, also give algebraic letters the meaning of game tokens with which one may
- 25 do exercises on paper of the form shown by the initial propositions. Then, one proceeds further mechanically, and the result yields a sanctioned, justified exercise. If one then makes the transition from the game meaning to the original meaning of the numbers, the proposition obtained must be correct when interpreted as a number proposition.

- 30 <(b) The Theory of Manifolds as a Most Universal Mathematics.
 A Manifold as a Domain Solely Determined by Forms>

- Symbolico-calculational procedures are, on the one hand, of immense epistemological and practical significance. By introducing 83
- 35 letters in the place of the words of ordinary language, one is freed of all fluctuating ambiguity that clings to words to a far too great extent. Furthermore, these procedures require the most exact analysis of the

concepts into their elementary concepts and the most exact differentiation of the different forms of combination and relation, the most complete exposition of the axioms pertaining to them and the most exact fixing of their meaning, and along with that the most exhaustive exploitation of the logical relations involved there.

Naturally, no procedure offers such a guarantee against fallacies, if only because of the banning of equivocations. And, once those arduous preliminaries have been seen to once and for all, none facilitates thinking to such an extent and, consequently, makes the posing and solving of the most universal problems possible. Thinking is facilitated, for since the stringency of the deductive procedure only hinges on the pattern of the logical form, and consequently the conceptual content of the terms does not essentially come into consideration at all, one is simply spared having to think again and again about the content of the concepts. One only thinks about the letters and gives them their meaning in the game by means of the rules of calculation.

It is incomparably easier to think of $a b c$ only as something with which one is allowed to replace <the> form $a + b$ by $b + a$, or $a \cdot b$ by $b \cdot a$, or $a - b + b$ by a , etc., instead of again and again having to keep clearly in mind that they are numbers, that adding the units of a number to a second one yields the same number as the other way around..., and likewise in every other field, where it is a matter of forces, and so on, etc. One is, therefore, spared thinking about numbers, forces, energies, beams of light, etc., as the case may be. Letters and rules of calculation are enough. Furthermore, with letters and signs for connectives, it is easier to arrive at the combinations in general possible than with concepts. One attains, therefore, a more effortless overall picture of all the possibilities under consideration, of all problems to be posed, or alternative partial problems. So, the problems are solved with greater completeness and universality.

The greatest success of the calculational method lies, though, in the purely logical domain. By means of this method, people first became fully aware of the role of logical form compared to the content of knowledge, and as a further consequence a new discipline and methodology developed out of this that rose above all particular calculating disciplines and constituted a new mathematics of the most universal kind of all, a supramathematics, so to speak, a higher-level

mathematics. And, that is the theory of theories as theory of possible theory forms mentioned.

- Methodologically speaking, all purely logical disciplines are mathematical. Outside of pure logic, so are geometry, kinematics, 5 mathematical mechanics, etc. These are purely and simply disciplines that are established as purely deductive within different given fields, that come from fixedly given groups of concepts and propositions, and then develop theories by purely logical means of inference. *Each such mathematics is a web of logical inferences.* Each forms 10 a whole, a *consistent logical system* whose form is a whole. Just as every inference has its form, so does every chain of inferences, and ultimately every theory and discipline proceeding purely logically, however comprehensive.²²

- This form first comes to the fore in purity in the mathematical 15 method, namely through algebraic symbolism and the sensible outward forms of the relations. The letters mean something different, something determinate, in every discipline, but we can rise above this determinate meaning in that we really know that, just as for each particular inference, the whole web of inferences remains meaningful and 20 valid if only the letters receive some arbitrary meaning bestowing valid meaning upon the initial propositions. Accordingly, it can perfectly well happen, and it occurs often enough, that two mathematical theories established in different fields fully agree in form, because both proceed from basic principles and basic concepts that of course have 25 a different meaning intensionally, but formally have completely the same constitution.

- If, for example, the letters mean sets or numbers and + the joining 85 of sets to other sets, of numbers to other numbers, in such a manner that the members of the one set are incorporated into the other set, 30 or the units of one cardinal number into the other cardinal number enlarging it, then the proposition $a + b = b + a$ is valid. By the letters we can, however, also understand lines, and by the plus sign the moving of the one line towards the other and in the direction of the other, in

²² Every material proposition that is obvious, every simple step from proposition to proposition must actually be specified and not be omitted as obvious. Or more simply: do not pass over any material axiom in silence. That must already be especially stressed earlier on.

such a way that the end point of the one and the starting point of the other coincide and in so doing form a single line. Then $a + b = b + a$ is again valid. The proposition has a different meaning since it is now a matter of lines and connecting of lines of a definitely defined sort, but in terms of form this proposition completely coincides with the earlier one and accordingly also receives the same algebraic expression.

If one has, therefore, for numbers, for example, a set of basic principles, and it turns out that a set of basic principles formally coinciding, point by point, with the set of basic principles of arithmetic holds in an entirely different domain, therefore, is expressed in letters in completely the same way, then it is evident *that corresponding to each possible arithmetical proposition is a proposition of the new domain and vice versa*, in such a way that, like the basic principles, all inferences, all conclusions, proofs, theories are *isomorphic*. Naturally, one does not actually need to carry out the inferences twice then. As soon as one has detected the *isomorphism of the basic principles*, one really knows *a priori* that everything must proceed in a precisely uniform manner.

Considering this observation, it is therefore clear that one can emancipate the form of the mathematical system from its domain, from its matter, as it were, and fashion the following hypothetical universal thoughts. Let there be, in general, a field having basic principles of the form $a + b = b + a \dots$, then propositions, theories of one form or another would obtain in it. *This mathematics is, therefore, not established as a mathematics of cardinal numbers, or as a mathematics of quantity, or anything else materially determined, but is established as a mathematics of an indeterminate universally conceived domain in general, about which is presupposed no more than that the objects occurring in it are of such a nature that a certain* connective $\pm$, $\cdot$, etc. yields new objects for them and, of course, that laws of the form established are valid for it.

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Whether this field is empirical or *a priori*, whether it is a <matter> of forces, or of propositions, or of numbers, or something else in the purely logical sphere is beside the point. The concept of the domain remains just as undetermined as the object of a concept when we say any "object" whatever. *The only determining thing is the forms*. A domain undetermined in this way, conceived with such full universality and only more precisely determined by forms, is what modern mathematicians call a manifold. And, they call the theoretical system

of the formal inferences *the theory of this manifold*. It is better called a manifold form and the corresponding expression for that is, naturally, theory form.

- If one is ready to understand this, then it is clear that one can
 5 *construct* manifolds (therefore, domains conceived in indeterminate universality that are the bases of a possible mathematics) *by arbitrary definition*. If one starts with a determined domain, for example, of lines on the plane, then naturally there is no arbitrariness, just as if one starts with the domain of numbers, or with the domain of forces,
 10 and so on. Here the fixed, preestablished nature of the matter determines which connections and relations it allows and which basic principles are valid for it. And, with the concepts and propositions, the forms of the broader theory are preestablished. If, however, one keeps to the sphere of indeterminate universality, to the mere thought
 15 of a manifold in general, then one can liberally bestow arbitrary properties upon it, namely formal definitions, provided only that one sees to it that they do not logically contradict one another. For cardinal numbers, $ab = ba$ holds. In constructing a manifold, though, one may just as well stipulate that $ab \neq ba$, for example, $ab = -ba$. And, likewise for
 20 the other basic principles.

- If one has but gathered together a self-consistent system of proposition forms, then they can serve to define the idea of a self-consistent manifold in general, and then one can mathematically derive the theory of a manifold formally structured in that way. For example,
 25 starting from the prototype of the materially grounded mathematical discipline, one can modify the forms step by step. It can, then, become apparent, and this also affects truth, that the different possible manifolds can form new groups and be placed in legitimate relation. In
 87 this way, a domain of creatively free mathematical investigation
 30 develops, and that is precisely the universal theory of manifolds (or the science of theory forms).

<(c) The Ideal of a Theory of Theories Embracing All Possible
Forms of Deductive Disciplines>

- I cannot describe here what an immense increase in knowledge
 35 this step up to purely formal universality and looking at the legitimate

modification of manifold forms has brought and how useful it is for the scientific treatment of problems in the established fields of knowledge and applied mathematics.²³ What is of concern to us here, though, is *that these highest of mathematical methods and theories*
 5 *are thoroughly operative within the sphere of pure logic in our sense* and are to be thoroughly incorporated within its expanded framework. They form a sort of higher tier²⁴ above all the theories we have characterized up to now as purely logical and they in turn belong in the sphere of a most universal formal ontology of all.

- 10 Arithmetic as theory of cardinal numbers, the theory of ordinal numbers, the theory of combination, etc. was purely logical in our sense. All of these relate to objects in indeterminate formal universality. They do not determine the ultimate objectivities to which they relate by means of “cognitive material”, by the ὄλη, for example, by empirical sensorial
 15 determinations, but by means of pure thought forms. The units that are counted, ordered, combined there are fully undetermined, and each and every thing can be understood by that. In comparison to the pure theory of manifolds, the disciplines named are concrete mathematics. They deal with particular subjects. The “particular subjects” are already purely logi-
 20 cally characterized here and are not at all particular subjects in the sense of the empirical or otherwise materially determined individual sciences. 88

- If we perform the *new abstraction* that leads, for example, from arithmetic to the theory of manifolds, which no longer has to do with numbers, but with arbitrary objects having the same formal pattern,
 25 then we pass over into a higher sphere of abstraction. But, we remain within pure logic nevertheless. When, within the higher way of abstracting, we speak of any field of knowledge in general in which laws of such and such a form hold, out of what is this thought built? What kind of determinations are we using? The answer naturally is
 30 that every concept of a manifold and of a theory of manifolds is built out of *purely categorial concepts*.

What is a “manifold”? To start with, nothing more than an “aggregate” or a “class” of objects conceived in complete indeterminacy and universality. Now, those are, though, purely and simply categorial

²³ Separating the theories in accordance with a separation of the presuppositions upon which they are essentially grounded.

²⁴ Higher tier not a good image. The mathematical universality of the theory of theories really includes within itself the particular disciplines in terms of their form, therefore the purely logical ones as well.

- concepts. Furthermore, when we say we are stipulating of these objects of the presently fully undetermined class that there are certain connectives $\pm$, etc. for them for which $a + b = b + a$, etc. then hold, then the concepts “certain” relation, sameness when changing the order of the relation, etc.
- 5 in turn occur. Purely and simply logico-categorical concepts. Here, the sign “ $\pm$ ” only means a sign for an indeterminately conceived relation and not, for example, for a relationship of quantities, or any other specific thing. Therefore, nothing leading outside the categorial sphere enters in here through the sign. We construct, therefore, purely logical concepts
- 10 of possible objectivities. Objectivities in indeterminate universality can be characterized in a variety of ways by the forms of propositions that are to hold for them. Universal concepts of possible theories having only hypothetico-formal validity develop thus. If a field of knowledge, for example, an empirical sphere of objects, corresponds to this concept,
- 15 then theories of the previously constructed or deduced theory form also hold *eo ipso*.

- We can also characterize the situation in the following way. *If we lift out the elementary concepts belonging to the essence of the theoretical content of science in general* and investigate the systems of
- 20 laws grounded in them, then under the heading of pure logic, we first obtain a stock of disciplines embodying the direct and indirect conditions 89 of the possibility of a theory and, in this respect, of a science in general. This is a store of basic laws and disciplines developing out of them that all sciences can use in like measure and that no science
- 25 can and may ever violate, because embodied is precisely what either is directly constitutive of the science or a pure consequence of it.

- Considered in terms of their form, all propositions, inferences, proofs, theories in the sciences are structured in a regular way, and the regularity is precisely this purely logical one. If one has, though,
- 30 developed the purely logical sphere to that extent, then its stock of concepts and laws makes it possible in advance (irrespective of actual scientific fields and actual theories about them) to construct *a priori* forms of possible theories and possible sciences and subsequently make use of those theory forms and the regularity of their relations
- 35 to one’s advantage for actual theorizing about fields of knowledge (whether about *a priori*, or about empirical fields of knowledge) that are defined for us step by step in the actual investigating of the world and await theorization. A procedure that we actually already use in the primary mathematical disciplines is perfected here.

Numbers and number relations, or quantities and relations of quantities, relations of order, etc. occur in given empirical spheres. We are not content to deal precisely with these numbers, quantities, relations of order occurring in the concrete spheres, but we step up to a completely abstract, universal arithmetic and theory of quantity. We theoretically pursue all formations of quantities and forms of functional relations of quantities in general possible, completely *in abstracto*, without asking whether these will ever be realized in nature. This procedure has, as is well known, proved splendidly effective. Only thus has mathematics become a magnificent tool for investigating nature.

We then do the very same thing with respect to the entire categorical form of the edifice of science, not just for what is numerical, but throughout. And, furthermore, we outline all possible proof and theory forms *a priori*. We grasp even the already thoroughly purely logical arithmetic and its theory form as a mere particularity. We grasp it as a particular instance of a prototype, of a class of theories. We are ultimately striving after the ideal of an all-embracing theory of theories, of a science of all possible forms of deductive disciplines, or at least of a differentiation of main prototypes and of systematic, separate development of prototypes within a main prototype. And, we carry this out with such completeness of the deductions that, in advance, we already establish and fully develop each possible form of a theoretical discipline falling within the scope of the main prototypes. We are then in possession of all theories in advance, before we even know the fields in which these theories will formulate and solve the problems of the field. So, just as when physicists come to a linear differential equation, they immediately know that it is a mathematical form that has been completely theoretically dealt with by mathematicians, that one only has to look up and carry the solution forms over to the particular case given, so in the future, were the ideal attained of constituting a system of propositions in a field as basic principles, then all theoretical work would already be at an end. One expresses the propositions algebraically, one looks at the form, and then says: That yields a deductive theory that falls within the scope of one or another mathematical prototype. For it, mathematicians have already theoretically derived all the possible formal consequences in formal universality. Therefore, the only thing that counts here is to apply, to subsume, and the thing is ready. Naturally, this problem has only been solved within small areas.

This is where the theory of non-Euclidean and higher Euclidean manifolds belongs. Should it turn out that in any part of physics, for

- example, ion physics, or somewhere else, formal relations obtain that as so-called axioms characterize a four dimensional Lobatchevskian manifold, then all theoretical work would already be done. For, the theory of manifolds of this form has already been finished once and for all. And, strictly speaking, all of pure analysis is a system of such pure theories developed in advance in the sense of the conception of manifold and ready for any possible application.

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<(d) The Difference Between Quantitative Mathematics
and Theory of Manifolds. Pure Logic as Mathesis Universalis>

- 10 In science-theoretical characterization, one must, however, rigorously distinguish the disciplines of the theory of theories discussed from mathematical disciplines in the primary, original sense, for example, the theory of manifolds of constant negative curvature, or the theory of two-dimensional manifolds, and so on, from the arithmetic of cardinal numbers, or of pure theory of quantity, etc.

- 15 The original mathematical disciplines of the purely logical sphere proceed from *given, purely logical basic concepts and axioms in the genuine sense, from directly perspicuous laws* grounded in the essence of these purely logical categories. For example, the concept of cardinal number is given as concerns its essence and belonging to it are the primitive laws of number, which are given, directly perspicuous truths. The dependent laws of number are based upon them, and in this way a science dealing with a preestablished, determinate, though categorial, field is actually constituted.

- 25 What are called *axioms in "non-Euclidean geometry"*, though, are not in truth full propositions, just as the basic concepts are not in truth concepts. And, so non-Euclidean geometry is actually *not a mathematical science in the usual sense*, not a theoretical system of propositions purely deductively grounded <in> basic truths. The meaning of such a theory of manifolds is, universally speaking: Let there be a domain in which the objects are subject to certain forms of relation and connection, for which axioms of such and such a form are valid, then for a domain formally constituted in this way, a mathematics of such and such a form would be valid, there would then result propositions of such and such a form, proofs, theories of such and such a form. Here, one does *not actually have a domain, does not have actually given*

concepts, does not have actually given connections and relations, and finally does not have actual axioms, but is simply saying, if one had a domain, and if axioms of such and such a form obtained for it. The so-called axioms of such a mathematics calling itself axiomatic are, therefore, not actual axioms, actual propositions entitled to be validating truths. They are axiom forms that are to actual axioms precisely what proposition forms are to actual propositions. 92

The thought S is P is not a proposition, but a thought that universally presents a proposition and presents it as having a certain formal prototype. If we say: Let there be a domain in which axioms of such and such a form hold, for example, an axiom of the form $a + b = b + a$, then I do not have an axiom, but am simply saying, let there be something such that for objects of the domain and for an unknown connective called $+$, commutativity applies. No truth is, therefore, advanced there. And, so the whole dependent theory is also simply the form of a theory. It really only says: From axioms of such a form (if axioms having such a form can be produced), theories would develop of such and such a codetermined form. If one actually finds a field of knowledge somewhere for which principles have the form required, then application to this field produces an actual mathematics forthwith: *instead of a hypothetical science form, a true and actual science.*

It is immensely important to understand this simple matter fully. Even among mathematicians, we find, and this is a quite common experience, the view that this axiomatic mathematics absorbs all of mathematics into itself. For every deductive discipline, for every preestablished actual mathematics, we can really abstract the corresponding theory form. For example, in the ordinary theory of cardinal numbers, we drop the cardinal number meaning of the letters and substitute the thought of objects in general for which axioms of the arithmetical form $a + b = b + a$, $a \cdot b = b \cdot a$, etc. are to hold. We have then exposed the purely logical class prototype of theory forms to which, besides innumerable many possible domains, the domain of cardinal numbers is also subject. But, then we do not have arithmetic either, but a class prototype of possible mathematics. One may then speak of numbers in the formal sense, but they are not cardinal numbers, but objects indeterminately, universally defined by axiom forms as they are especially actually found for cardinal numbers. Here, as

in every theory form or manifold form, the “axioms” are proposition forms that are constituent parts of the definition.

- Just as in arithmetic, the formal theory prototype can be contrasted 93
in the theory of quantity, even in scientific apophantics, in short, in
5 each of the primitive purely logical disciplines. However, one must
not then believe that one has rendered pure logic and all determinate
mathematics superfluous. Of course, one can everywhere go back to
the form and derive the whole system of consequences, or rather con-
sequence forms, on the basis of the form. And, of course, there is a big
10 advantage to that, inasmuch as the same theory forms recur in differ-
ent fields (e.g., the arithmetic of cardinal numbers and the arithmetic
of ordinal numbers, and, for the most part, quantitative arithmetic,
etc., formally coincide). Even syllogistic mathematics can be placed
there. One can theoretically construct a single manifold prototype
15 by means of whose theory all the theories formally embraced by a
theory of cardinal numbers, a theory of ordinal numbers, a science
of absolute, ordered quantities, and even a syllogistics, would also
therefore be dealt with. And, indeed, the immense significance of the
methodology of theory forms also for the most part lies in this.
- 20 On the other hand, however, the formal theory of manifolds would
be nothing in its own right if it did not draw all its knowledge from
the original sources that first make actual science in general pos-
sible. In the methodology of manifolds, one speaks of numbers and
does not mean by that cardinal numbers, not quantitative numbers,
25 or anything of the kind, but each and every thing for which formal
axioms of the arithmetical prototype hold. And so, all purely logical
basic concepts are set aside in similar fashion. *It is all the more cer-
tain, however, that one needs them in actually using the theory of
manifolds.* Since one is making inferences scientifically, since one
30 is thinking (though hypothetically and on the basis of formal speci-
fications), advancing from argument to argument, since one cannot
avoid making the inference from n to $n + 1$, and so on, what is purely
logical already thereby proves to be involved in this everywhere, *just
as the entire theory of manifolds is constructed out of purely logical*
35 *material.* We have demonstrated this in detail.

*One cannot set aside the purely logical categories. Apophantic
logic supplies the principles* in accordance with which the entire
procedure functions and, likewise, the higher logic of second-order

objects supplies basic concepts, like the concept of cardinal number, of ordinal, of combination, and so on, from which one cannot escape 94 in actual thinking about purely hypothetical-formal thought configurations either. One can just not think without thinking, meaning, without also having and presupposing everything without which 5 thinking of whatever form or however expressed would really ever have any meaning.

Therefore, the rational goal of modern, so to speak, supramathematics cannot be to set aside the concepts of proposition, concept, 10 cardinal number, relation, equality, quantity, etc., and to substitute formal concepts, concept forms. For that would be pure unreason, a pure absurdity. Rather, the goal is to obtain the disciplines belonging to these categories and to all possible spheres of theories in an entirely new, unique way. Instead of everywhere purely holding on 15 to the concepts and setting up for their own sake the axioms and out of them the mathematics pertaining to each sphere, it proves vastly more advantageous and infinitely more fruitful to set up a universal, and thereby hypothetical, theory of theories that defines the main prototypes of theories²⁵ and constructs them completely in terms of 20 their form, so that this mathematics itself is not to be effected anew for every preestablished purely logical or extralogical domain that in general admits of a mathematics, but is to be obtained by simple subsumption under the corresponding theory form. What one is operating with throughout, though, and is the principle of all deduction 25 there, are purely logical concepts and purely logical axioms of different disciplines, the systematic exposition and actual putting into effect of which then simply has to be effected by subsumption under the corresponding theory prototype. *The logical categories form precisely the source of all science as such*, therefore, of all 30 science in terms of its theoretical form.

If we identify the difference between reason and unreasonable thinking with that between logical and unlogical thinking, then the *idea of reason* as λόγος is completely defined by the *sum total of purely logical categories* and of the *primitive categorial laws* belonging

²⁵That here “theory” just means “purely logical” or formally logical theory, “deductive” theory, about this compare 96 <comp. §26 below>. Concept of this theory to be defined more precisely!

to them, of the logical axioms in the genuine sense. And, the field
 of reason as pure reason is then completely filled by pure logic as 95
mathesis universalis, and the universality of this mathesis embraces
 apophantic logic, the mathematical discipline in the categorial and
 5 original sense and mathematics in the highest sense, the mathematics
 of form prototypes of possible theories in general and of possible
 mathematics in general.²⁶

Have we now finished? Has the realm of logic now been staked out
 on all sides? Certainly, we have drawn to a close. Is, however, the
 10 *a priori* of science, the *a priori* that belongs to rational thinking as
 such, only the formal ontological *a priori* within the sphere defined
 by us?

²⁶To carry into effect: Everything is reducible to two sorts of things:

- 1) The *a priori* concepts and principles,
- 2) Universal theory of theories that formally embraces all particular purely logical disciplines possible by virtue of 1).

<Chapter 3
FORMAL AND REAL LOGIC>

<§20. *The Natural Sciences as Merely Relative Sciences of Being,
Metaphysics as Ultimate Science of Being*>

5 Now, the relationship of formal ontology to metaphysical ontology
and, thereby, at the same time, of logic and metaphysics, also requires
examination. *What is metaphysics and metaphysical ontology?*
Historically, the term metaphysics was an accidental name for the
Aristotelian work that deals with the science that Aristotle himself
10 called “First Philosophy”. And, finally, supplanting the original
Aristotelian name, it became the name for that very science.

Aristotle defined First Philosophy as the science of Being as such.
While, as he said, all other sciences cut out some partial domain of
Being for themselves and work on it for its own sake, First Philosophy
15 investigates what universally pertains to Being as such. If we keep in
mind that under the heading of “Being”, it is Being in the sense of what
is real that is being aimed at here, then we already have a definition, 96
albeit provisional, of the concept of metaphysical ontology. Today, we
shall understand metaphysics itself differently, and more broadly. In
short, its concept should be best defined in the following way.

20 In a certain way, every empirical science is a science of what is
real. It deals with real things, with their real becoming, with their
real relations, etc. Each such science is, therefore, in its way, an ontol-
ogy. And, since each empirical science investigates a special sphere
25 of real Being, the totality of all empirical science, actual or still to
be constituted, seems to give access to the sum total of reality and
to satisfy all epistemological interests regarding reality in a way
commensurate to the state of development of these sciences. Upon
closer examination, however, this is not the case.

30 The empirical sciences are not creations of a purely theoretic-
al mind, not based on absolutely scrupulously laid foundations in
accordance with a rigorous logical method. Having emerged from
the prescientific worldview and philosophy, even the most highly
developed, the most exact natural sciences, also uncritically bring

with them concepts and presuppositions originating in that prescientific understanding of the world.

- For human beings in the natural state, things are given in perception and experience, and the task is to know these things, just as they
 5 are given there, in terms of their permanent properties, in terms of their changing characteristics, in terms of the patterns they conform to in acting and reacting. Now, howsoever scientific knowledge extends beyond the conceptions and decrees of the natural, naive worldview, however much it rejects as appearance what the latter accepts as naked
 10 truth, it nonetheless continuously maintains common ground with it. It step by step modifies the conceptions of reality previously given to it and countenanced by it itself on other levels to the extent that theoretical adherence to them and pursuit of them leads to contradictions and empirical incommodities. To the extent that this is not the case,
 15 it adheres to what is previously given without subjecting it to closer examination. On the whole, it operates, for example, using the basic model of natural reflection on the world: Here I am, and outside of me are things, and these things are in space and time, have their at
 20 times lasting, at times changing properties and relations there, and I know about that because <in> myself I have certain subjective experiences called cognitive experiences, namely, perceptions, memories, expectations, thought presentations, judgments, etc. 97

- Reality finds expression in these subjective thought experiences, at times correctly, at times incorrectly. Many have objective meaning
 25 correctly expressing reality, many merely subjective meaning, not stemming from the nature of external things, but from the nature of my individual I. And, besides me, there are other persons who stand in relation to the world just as I do, and all of us can come to understand one another, exchange our impressions, experiences, correct
 30 and incorrect convictions with one another. Although the details of this have changed with the entry of psychology into the ranks of sciences of matters of fact, nothing essential has in principle changed in the model, though this model involves a wealth of the most difficult problems, or a wealth of presuppositions not submitted to critical
 35 examination that, as soon as one begins to reflect on them, immediately present puzzles that the greatest thinkers of all times have not been able to solve clearly. Natural scientists are not worried about this and for the most part do not even notice these puzzles. And, this is

chiefly because a highly worthwhile goal has been attained for the practical mastery of nature: far-reaching orientation in empirical reality, the possibility of formulating laws by means of which we exactly foresee and predict the course of empirical processes, reconstruct the course of these processes. This is how those wonderful theoretical disciplines develop whose contribution of such a legitimate orientation to knowledge and to the technique of the natural sciences need not be described nowadays.

That this knowledge of the world is not definitive, and is not seen as definitive by most natural scientists themselves, is already apparent in the term that people nowadays universally tend to employ for natural things and natural processes and that I have intentionally avoided. In memory of the much loved Kantian theories, which natural scientists do not by any means tend to understand, they employ the word “phenomenon”, phenomenal thing, phenomenal world, and the like. Things are mere appearances, behind which true Being, the thing-in-itself, is supposed to lie. Now, we have not to debate and to decide here how much truth is to be looked for in this. In any case, it is certain that the knowledge of the world of the natural sciences, even the most highly developed ones, is not definitive knowledge of reality. This is most blatantly apparent in the fact that, while different natural scientists by no means call into question the theoretical content of the sciences developed, they immediately part ways as soon as they themselves begin to reflect on the definitive interpretation of the truth of its dictates. Therefore, the same science with the same equally recognized stock of theories is yet open to different “interpretations”. Some declare themselves Materialists, others Idealists, a third party a Positivist or Psychomomist, while a fourth party discovers ultimately conclusive truth in the energetistic interpretation of the world.

That is significant. In possession of exact mechanics, acoustics, theory of electricity, etc., we are, nevertheless, not yet in possession of definitive knowledge, of ultimate, conclusive knowledge of the essence of nature, and the fact is *that nothing of this is changed by the progress in the natural sciences*. The quarreling of the factions just does not concern gaps in the knowledge of the natural sciences, but rather the “interpretation” of the theories, however highly developed. And, the possibility of these interpretations is obviously rooted in the fact that in the laying of the foundations of

the exact sciences, and in the methodology to which they owe their derivation from the foundations, final critical insight is missing, the lack of which, however, is not detrimental to the practically useful outcome, to the construction of theories, and to the formulation of orientating laws. One undoubtedly has worthwhile results, but with the lack of that critical insight into the meaning of the fundamental concepts and fundamental principles, one is unable to make up one's mind about what one has there, what has ultimately been achieved there, therefore, in what sense one may claim to take the results as expressions of ultimate Being.

The empirical sciences are subject to principles that govern thinking and research in the natural sciences, that make natural science in general possible and that, therefore, cannot for their part be investigated again by thinking and research in the natural sciences. All these principles are unclear and debatable the moment one gives them thought. They are clear *in praxis*, in application. All natural scientists, for example, speak of cause and effect, allow themselves to be guided everywhere by the principle of causality. That is part of that "basic model". Only, one may not ask them about the ultimate meaning and <the> source of this principle. Every natural scientist knows what time is, but as Augustine already said in this respect: If you do not ask me, then I know it; if you ask me, then I do not know it.

It suffices to see that above and beyond the merely relative sciences of Being, there must be a definitive science of Being that alone <has> to satisfy our highest, ultimate interests in Being, that has to investigate what has to be considered as Real in the ultimate, definitive sense. This radical science of Being, the science of Being in the absolute sense, is *metaphysics*. Naturally, it arises through a certain critical investigation of the ultimate meaning and value of the theoretical foundations of the empirical sciences, through elucidating and ultimately securing them. If this critique has been carried out, then it can be ascertained which interpretation of Being proves true and definitive. So that, therefore, metaphysics is obviously a science related to the other sciences of reality and already presupposing them. We do not yet have to talk about what kind of critique it is that is to be carried out on the foundations and principles of empirical ontology. Much will be said about that soon enough.

Metaphysics is, therefore, again ontology, *radical ontology*, the science of ὄντως ὄν, instead of one of Being in the empirical sense, which we supposedly know so well and which, upon closer inspection, at times turns out to be illusory and deception, and at times, an unclear intimation of a Being receding ever farther away the farther we search and never to be definitively grasped.

<§21. *The A priori Metaphysics of Reality in General as Necessary Foundation of the Empirically Grounded Metaphysics of Actual Reality*>

The universal concept of ontology can be, as our studies up to this point show, defined in different ways. In the end, we spoke of the metaphysical ontology that relates to real Being. In the discussion of the idea of an *a priori* theory of science, however, we also encountered an ontology. It deals with Being in general in the most universal universality, in a universality that projects far beyond the metaphysical domain. Being (*Seiend*) in the broadest sense, in that of theory of science as formal ontology, is each and every thing that can figure as the subject of a statement, each and every thing about which we in truth speak, each and every thing that can in truth be referred to as being (*seiend*). And, that does not merely concern things, processes, and what is otherwise real, but even numbers, contradictions, propositions, concepts, theories, ethical, or esthetic ideas, in short the multifiform variety of ideal objects, of those that cannot meaningfully be said to have a place in spatio-temporal reality. Naturally, all formal logical distinctions hold for the metaphysical sphere, which is narrower. We shall still have to consider how metaphysical and logical ontology stand in relation to one another.¹ For the time being, we are still discussing a distinction pertaining to metaphysical ontology.

¹ The basic logico-ontological category of object in general and its logical variations lead back, however, and naturally essentially so, to the category of individuality and its logical variations. Ontology of individuality in general, back to which all logical propositions also, therefore, refer. Individual connections, wholes, parts, relations, individual, i.e., genera and species referring to individuals (in contrast to genus and species of number forms, etc., of propositions, of logical forms, contradictions). Principles of individuation, etc., formal theory of individual universes. Formal metaphysics.

Now, we can clearly categorize scientific ontology in the metaphysical sense in the following way: Metaphysics is to investigate what is *realiter* in the ultimate and absolute sense. It claims to provide the interpretation, the ultimate interpretation, of the empirical sciences of reality. It is, we said, essentially related to the content of these sciences. Through it, it acquires its relationship to the actually present reality, to reality as it is *de facto*.

- To be able to adopt such an interpretation, though, various preliminary investigations are needed, and among them, above all, an ascertainment of the truths grounded in the universal essence of real Being as such. The idea of an *a priori* ontology arises there, not in fact a formal logical one, but a metaphysical one. Wherever it is a question of reality, in life and in all empirical sciences, we apply certain concepts like thing, real property, real relation, state, process, coming into being and passing away, cause and effect, space and time, that seem to belong necessarily to the idea of a reality. Whether, now, all these concepts are actually intrinsic to the idea of reality, such concepts, the basic categories in which what is real as such is to be understood in terms of its essence, nevertheless, surely exist. Therefore, a group of investigations that simply reflect upon everything without which reality in general cannot be conceived must, nevertheless, be possible. This is where the whole *a priori* theory of time, *a priori* kinematics would belong, and pure geometry, providing those people are right who believe that, without the relationship of all reality to a three-dimensional Euclidean space and one-dimensional, so to speak, linear time, reality in general cannot be conceived. No knowledge of actual reality is yet given with such investigations, for they concern the actual, as well as every possible, reality. Of course, practically everything here is debatable, and the very idea of such an *a priori* ontology meets with the fiercest opposition.

- Now, however much may in fact be subject to doubt here, especially the *a priori* necessity of an ordered Euclidean, three-dimensional space for every reality, it is certain that a most universal concept of realness in general can and must be kept distinct from the particularities grounded in the essence of realness. Individual realness as Being-for-itself, or thing in the broadest sense, likewise real property in the broadest sense, real relation, even time, cause, effect, concepts like that, are surely necessary ideas of possible reality and require a study

of the analysis of essence and of essential laws. There must, therefore, be a science of what really is (*vom Realseienden*) as such in the most universal universality, and this *a priori metaphysics would be the necessary foundation for empirically based metaphysics*, which not only seeks to know what lies in the idea of reality in general, but seeks to know what is then actually actual, first of all universally as an inquiry into the general, but simply actual determinations (elements, properties, laws) of actual reality, and then <seeks> to determine what is definitively real in a particular way in the actual sphere of Being <in order> to be able to understand definitively what is *realiter* there. 102

The *a priori* ontology of the Real is, we could again say, formal metaphysics, though the term is better avoided.² Metaphysics in the authentic sense is material metaphysics. The former, we could further say, is *a priori*, the latter, *a posteriori* metaphysics. The former is prior to all empirical sciences; the latter comes after all empirical sciences. 15

Naturally, one can also say of a logico-formal ontology that it provides a substructure for this metaphysics, inasmuch as it is really obvious that what belongs to Being as such, also belongs to real Being. In this sense, logic in general naturally grounds metaphysics. But, we have yet to hear about the extent to which it reserves still other, extraordinarily difficult, groups of problems for it. 20

<§22. *The Relationship of A priori Metaphysics
to Logico-formal Ontology*>

25 *How, then, does the a priori ontology of reality stand in relation to logico-formal ontology?* Can it be ranked on a level with the disciplines of the latter, which is really more universal? Are the metaphysical categories,

²Note. Many will say: that is a *a priori* or “pure” natural science and nature is mere appearance. Behind, lies the world of things-in-themselves. Still, since we cannot know anything about these things-in-themselves, the way the theory involved is, and we lack knowledge and insight regarding these categories, then that consequently further means that there is no metaphysics as science of this in-itself. Well, then, we are just not using the term metaphysics as a scientific term for this “deficient” science either. Metaphysics as the name of a science would then be the name of this pure natural science. But, as said, we are not prejudging here. It is enough to recognize that there are sciences of nature, of reality, then also a universal and *a priori* one.

therefore, to be placed on a par with the purely logical ones? Against placing them on a par, one could say in objection: Concepts and principles are purely logical that, abstracting from all cognitive material, and in virtue of this abstraction, namely in virtue of their fully undetermined
 5 universality as concerns material, relate to every possible field of knowledge, to every possible science, namely as concerns its theory content. They, therefore, also relate to the disciplines of the *mathesis universalis* itself differentiated by us, to syllogistics, arithmetic, etc. Concepts like object, characteristic, relation, whole, part, multiplicity, unit, cardinal
 10 number, order are of such most universal significance, among them also universal and particular.

Every scientific field states universal propositions, ascribes universal characteristics to its objects, and refers to ultimate particulars with its propositions. So, arithmetic states propositions with letters.
 15 These are laws, algebraic laws. The ultimate particulars to which these laws and the arithmetical propositions in general refer are the numbers of the natural number series, 1, 2, 3... that are, as it were, the individuals of arithmetic.³ Therefore, we find a distinction between particular and universal presentations everywhere. But, the particular
 20 does not everywhere refer to, and in pure mathematics never refers to, an individual real thing. And, accordingly, particular properties, combinations, relations are to be accepted everywhere, but real properties, real combinations, real relations not everywhere. The number 4 is not a reality. The relation of quantity between 4 and 8 is not a
 25 real relation, etc. Likewise, a determinate proposition is a particular in the realm of meanings, but not anything real, etc.

On the other hand, one could, though, engage in the following reflection: Of course, the ultimate particulars to which the propositions of the ideal sciences⁴ refer are ideal individuals and not individual realities. But,
 30 then, how do things stand with the ideal particulars? Does it not belong 104

³ In arithmetic, we refer to arbitrary numbers of arbitrary objects in indeterminate universality. We do not have authentic individuals (determinate particulars) here. Arithmetically speaking, number is not an ultimate difference in the sense that red is in "color geometry".

⁴ The contrast is not between ideal and real science, but formal science that refers to unlimited ranges that are circumscribed by categorial-*a priori* concepts and material science that refers to materially determinate ranges. Accordingly, everything discussed here is not correct.

to their essence to refer back in a certain manner, albeit in an indeterminately universal, and often very indirect manner, to other particulars that are no longer ideal in nature, or not so in the final analysis?

- In arithmetic, in the science of numbers, 2 is an ultimate particular.
- 5 Number in general is genus. Number 2 is ultimate difference. But, 2 is itself a universal. That is, 2 is one and one that as universal form, 104 comprises two apples, two people, two contradictions, two propositions, maybe even two numbers, etc. Either the units are, say, themselves realities, or it is again ideal objects that are counted that, however,
- 10 then themselves again refer back to other particulars. It is certain that what is ideal can refer again to what is ideal, but always can to what is real also. A determinate proposition is an ideal particular. It can refer to ideal objects, but in the end there is, everywhere and *a priori*, the possibility of bringing in a reference to what is real. *Does the possi-*
- 15 *bility that ideal particulars have to refer back to real particulars not, therefore, belong to the essence of particularity in general?*

- We can carry out the reflection in the following illuminating form: With regard to its meaning content and objective content, all knowledge, as we said earlier, presupposes *matter* and *form*. In every proposition, we find
- 20 terms, the word content, that indicate what is being spoken of, and, on the other hand, the predicative forms expressed in form words, or by inflection, or in grammatical forms of the terms, like nominative form, adjectival form, etc. Now, the terms can (as is of course the case for every proposition of purely logical content) be categorial concepts, therefore,
- 25 designate simple objectifications of forms and to that extent indicate only relative matter. But, in the end, the objectifications precisely point back to original forms and to possible propositions in which these forms join terms that are no longer of a simply categorial nature, therefore, contain matter in the absolute sense.

- 30 Were we to imagine all “matter of knowledge” in the absolute sense to be non-existent (in contrast to that relative matter that relates to the objectified forms), then the category would no longer make any sense either. With its indeterminate universality, everything logical points to something extra-logical, to a containing of something
- 35 that is to be grasped logically, but must first be there so that logical grasping finds something to grasp. In whatever way the logical can refer again, and often enough does refer, to what is logical, ultimately involved in this reference, even if indirectly, is again a reference to

something extra-logical, to a world of ὄλη. That means, though, that logical form *a priori points to matter to be formed, to be logicized, or to be rationalized*. Therefore, separating particulars into real and ideal, separating relations, combinations, genera and species, etc., 105
 5 into real and ideal is something primitive and essential, something *a priori* inconceivable as non-existent.

Under these circumstances, one could at first think (I mean, due to this *a priori* belonging together) that the distinction between what is real and what is ideal would precisely have to be negotiated within logic, and, further
 10 on, the basic essential distinctions would have had to have been negotiated within reality.⁵ Therefore, apart from the formal ontological categories are also the categories of what is real. Given the nature of the circumstances, these real categories obviously cannot be something cut off from every-
 15 thing logical. They must have logical form, or else, nothing would be thought by means of them. The category thing includes the logical form of particularity within itself, is therefore a realization of the formal category of particularity. The category “real relation” stands in a similar relationship to the formal category “relation”. And, if you think about time, becoming,
 20 and so on, then you immediately notice that time is thought of as order, and order is a formal category. Nevertheless, the realization of formal categories produces new concepts, basic concepts of what is real that, according to the view now under discussion, would belong in logic. Furthermore, the laws belonging *a priori* to the real categories would belong in pure logic. What attitude are we to take to the matter?

25 It is clear that it is upon the way we define, and in a way want to define, the concept of logic that our use of it to draw basic, essential lines of demarcation grounded in the nature of the matters themselves will depend. One thing is certain, that apophantics and the series of universal mathematical disciplines in general have an *a priori* relation-
 30 ship to the distinctions and laws that we would have to attribute to an *a priori* theory of reality. With certainty, we further see that the formal disciplines make up a self-contained unit. All together, they constitute a science of everything that with respect to form (μορφή) belongs 106
 35 *a priori* to the essence of theory in general and can be developed scientifically there.⁶ Or, they constitute a theory of science, in so far as

⁵ Important.

⁶How does the formal ontology that we called *mathesis universalis* stand in relation to this reality?

science must, by essence, contain theory, and science is really only completed science in so far as it provides theory. What is metaphysical is not, however, to be reckoned in there. For, that belongs to the ὄλη.

5 The complex of disciplines dealt with by us is apophantic through and through, belongs through and through to form, without which no statement is possible. Either, it is apophantic in the narrow sense, or it is an *a priori* that is based on something apophantic at a higher level and purely on such. I call to mind the relationship of number and plural form, and so on. The sciences that are purely related to
10 form make up a closed unit. Form, of course, points to a content. Therefore, all formal logical disciplines are ultimately related to possible spheres of knowledge of reality in virtue of those *a priori* connections between forms and contents. Ultimate particulars, which no longer have any relationship to anything else, namely have no thought
15 relation belonging to their immanent meaning, are real—more universally, individual!—particulars, are always determined in terms of content and individual particulars.⁷ But, scientifically, the content may be conceived of in indeterminate universality and thereby orient a sphere of knowledge *a priori* through the essence of the forms, and
20 then the purely logical disciplines result, or taken as a unit, the *science of form in general*.

On the other hand, content-filled knowledge gives rise to different sciences. They give rise to the specific sciences of reality with their consummation in a definitive science of reality. And, again, they give
25 rise to a science of the universal essence of reality in general, not of actual reality, but of what intellectually necessarily belongs to reality as such, to formed content as such, but not with respect to mere form. This is where the theory of abstract and concrete in the sense of my *Logical Investigations* belongs, the theory of material wholes and
30 parts, of what is independent and dependent, of relationships of Aristotelian genus and species, like, for example, color and shade of red (LI II and III), further on, questions about the essence of substantial individuality, of thingness existing in its own right, questions about the essence of causal dependencies, of relations of cause and effect.
35 Everywhere, as we already noted previously, logical form is necessarily co-given and co-determinant and is so in a way that just

⁷ Compare Appendix A IV (Editor's note).

has to be a matter of most thorough investigation. Therefore, what is *a priori* metaphysical is not universally science-theoretical in our sense. Of course, it is science-theoretical too, but more especially only in consideration of all sciences of reality. It concerns a store of distinctions and theories that are essentially common to them, common along with everything purely logical.

The only manner in which one could justify extending the idea of logic beyond *a priori* real ontology is by saying: *In terms of its ultimate goal, all knowledge refers to reality and is directed towards it.*⁸

- 10 Everything that helps us have knowledge of reality, that pertains *a priori* to the possibility of having knowledge of reality would be logical. Logic would, therefore, be the complex of disciplines of the *mathesis universalis* since, in terms of form, it pertains to the possibility of knowledge of reality, and logic would be universal real ontology
15 since, in terms of content, it pertains to the possibility of knowledge of reality. In the first part, logic conjointly contains principles pertaining to its own possibility. That would not be an unjustified concept of logic, but nevertheless <one> different from our concept.

20 <§23. *Formal Logic as Theory of Theory in General, Real Logic as Theory of Knowledge of Reality*>

- In the last lecture, we were confronted with the question as to whether *a priori* metaphysics, which investigates the categories and principles expressing the essence of what is real in general, is or is not to be combined with formal logic, constructed as a single science. We were able to see clearly that connections, namely *a priori* connections, run from the formal domain over into the domain of the real. On the other hand, this changes nothing about the fact that a strict line of demarcation circumscribes the sphere of formal logic in our sense and that the latter consequently in itself figures as a distinct, strictly separate discipline. As we showed, every form points *a priori* to some kind of matter to be given form by means of it. This

⁸Missing everywhere is the differentiation within the idea of the individual. It would have to be called not "real", but "individual" everywhere. Reality in the specific sense is something especially, and even multiply, to be divided.

matter can be simply relative contents, as when the objectivity we are speaking about is itself of a formal logical nature, like multiplicities and numbers in mathematical universality. But, in the final analysis, lying behind everything formal is the thought, vague though it may be, of absolute particulars, therefore, of real particulars, and likewise of genera and species, of properties and relations of real particulars. Where realities themselves find expression in propositional thoughts, terms having content in the concise sense, terms expressing a ὅλη, are found. It is first a matter of deeper phenomenological investigation to lay bare the origin and ultimate basis of this distinction. I hope, however, that it is clear to you. It must be, if the full specificity of formal logic is to be able to be seen and captured. Concerning the ὅλη, I have already fleetingly pointed out that it is represented for us under the heading of sensuousness. It is perhaps good for me to place somewhat more emphasis on this point already, if I wish to characterize the difference here.

Something material in the absolute sense is present everywhere sensory intuition (that is actually with its sensorial content, of course) must come into play in order to make the meaning of the word in question an Evidenz for us. So it is with words like tree, table, or simpler ones, like red, blue, hard, rough, sound, etc. Wherever we name an individual and are referring to that specific one, and likewise, wherever we are referring to properties, internal determinations, or real relations between individuals, sensuousness comes into play. In contrast, concepts like unit or plurality, existence or non-existence, and so on, and so in general all purely logical concepts, cannot find Evidenz, their clear meaning, by looking to the sensorial content of presentations brought in. And, the following is connected with that: I can paint and portray a human being, a tree, and so on. A unit, a plurality as such, a prime number, the characteristic algebraic numbers, the characteristic of universality and singularity, in short, what is logical cannot be portrayed, not painted. We can paint two trees, but we are then painting this tree and that one. But the twoness and the “this” and the “that” are not anything that could be painted on the trees, for example, with a brushstroke of one specific kind or another. You see that two basically different kinds of spheres of thought are in fact present here, and connected to that, that the universalization leading us to the material concepts, the authentic genus and species

concepts is entirely different from the one raising us up to logical form and different from the forms of lower layers to those of higher ones. *Mathematical universalization is something totally different from abstraction and generalization in the sense of having content.*

- 5 Starting from the perception or imaginary intuition of human beings, animals, and so on, we rise to the universal concept of human being in general, of animal in general, then more universally of organic being in general. Starting from the perception or intuition of specific, individually given colors, we rise to the concept of red in general, of
10 color in general, of sensory quality in general. In this generalizing, one's gaze is always turned towards the special nature of the content, towards its quality, towards its being constituted in such and such a way, and it is precisely its constitutedness *in genere* that we focus on. If, however, it is a matter of grasping something intuited as one,
15 as something, as "other" than this and that, or as being together with that, and again a togetherness of it and that as two or three, then plainly nothing of the particular nature of what is intuited enters into the meanings of oneness and otherness, plurality and duality, etc., now obtained. Now, in this contrast, *the absolute, fundamental essential*
20 *difference between matter and form* confronts <us> in a sharp and unbridgeable way. This is something that one has to have made evident to oneself at some time.

- Matter and form are evidently inseparable in the sphere of intuition and actual givenness of objectivities. The possibility of considering
25 formal relationships in their own right and of logical reflection upon them is, however, intellectually and meaningfully feasible precisely by positing what is material as undetermined and universal in thought. And, it is with this intellectual exclusion of matter, which is nothing other than *formalization or mathematical universalization*, that *formal*
30 *logic* is constituted. It is operative in the sphere of pure determinations 110 of form and of the laws pertaining to it. It deals with propositions in general, or proposition forms in general, inference forms in general, correlatively with states of affairs in general, with objects in general, with sets in general, with numbers in general, etc.

- 35 The formal logic that we might also characterize as formal ontology reaches as far as the realm of matterless (therefore, formal, and in the purest sense, mathematical) concepts, reaches as far as we speak of things (*Sachen*) in general and objects in general, but purely

as far as they are specifically thought through the simple thinking forms. It culminates in a theory of theories, in a rational morphology and physiology of theories possible *a priori*, or correlatively speaking, in a rational discipline of the manifolds, of scientific fields that
 5 are exclusively defined by the form of their theoretical connections. That gives, therefore, a perfectly complete unit directly characterized by the fact that everything having to do with content is excluded on principle. Not belonging in there, therefore, is metaphysics, not even
 10 *a priori* metaphysics, although ultimately all form *a priori* refers back to matter,⁹ and all talk of objects in general would lose its meaning if objects were never really to be given at any time.¹⁰

On the other hand, this very relationship also affords a basis for understanding the justifiability of the view that draws metaphysics into logic. Naturally, the concept of logic must then be understood differently
 15 from our concept of formal logic. We obtained this concept as the most fundamental concept of logic of all by adopting the perspective of the idea of science in general. We did not, therefore, distinguish between the sciences. We accepted them all as equivalent. We found sciences specifically related to the different spheres of reality, on the other hand,
 20 however, even completely formed and highly developed sciences, like pure mathematics, that do not do this, that wholly exclude any relationship to any specific sphere of reality. Thereupon, what both had in common stood out: pure form. Belonging to the essence of science in general, whether it is concerned with the ideal or the real, is the form of
 25 the theory, the apophantic,¹¹ and what is based upon it. There is, therefore, a most universal theory of science of all, the theory of theory in general, science of what is ultimately grounded in the essence of statements claiming validity, of the ἀποφανσις. (Correlatively: science of objectivities in terms of the logical form of the apophantic.) 111

30 We can, however, also adopt a different standpoint. Namely, we could say: In terms of its ultimate goal, all knowledge relates to reality.¹² Real things (*Sachen*) have their logical form insofar as they become objects of statements of such and such a form, and we can reflect upon what

⁹ Matter is equivalent to having content, just a form of individuality then, form of what is specific. Compare my theory of relational core contents.

¹⁰ Yes, but would ultimate objects always have to be real (things (*Dinglichkeiten*))?

¹¹ Not every science is theoretical (deductive), but every one includes apophantic structures.

¹² Unsatisfactory! Science relates to values. Does the material order always mean reality?

- is attributable to objects in general in virtue of this form. But, this is basically only of interest because we aspire to knowledge of reality, and knowledge of form is naturally of extraordinary methodological significance for the knowledge of things. The forms are precisely
- 5 forms of actual and possible things, and without them, nothing becomes something knowable to us. Accordingly, *by logic one could comprehend everything pertaining a priori to the possibility of knowledge of reality in general*, or by logic, if you like, understand *theory of science, not theory of science in general, but theory of the science of reality in general*.
- 10 Then, logic would embrace a *twofold a priori*, one of pure form and one of matter determined by form.

- Reality as objectivity is subject *eo ipso* to all forms and laws belonging to the essence of objectivity in general, and the theory of every real objectivity is necessarily subject to the laws belonging to
- 15 the theory in general of any objectivity whatsoever. *Therefore, formal logic would be the science of this first a priori*. On the other hand, the *a priori belonging to the idea of reality as such* would come into consideration. The totality of truths relating to the essential categories of reality (thing, property, real relation (between things), real whole,
- 20 real part, cause and effect, real genus and species, etc.) are a foundation and prerequisite for any further knowledge of reality. In view of the entire sphere of the sciences of reality, they are a necessary, common resource and “science-theoretical” with respect to them. We could also call logic in the present sense a theory of science of the
- 25 real. It encompasses the whole of formal logic.

- We could, however, also develop two disjunctive concepts of logic. By formal logic, we could understand the science that is related to categories of form, and, on the other hand, by *real logic*, the science that is related to categories of matter determined by form, to the specifically
- 30 metaphysical categories. We would then have a distinction that in some measure agreed with the Kantian distinction between universal and pure logic, on the one hand, and transcendental logic, on the other.

It is actually a matter of the first in the Kehrbach <edition of the *Critique of Pure Reason* p. 78>¹³:

¹³I. Kant, *Kritik der reinen Vernunft*, text of the 1781 edition with addition of all of the discrepancies from the 1787 edition, ed. Dr. Karl Kehrbach, second edition revised, Leipzig, o. J. (Editor's note).

1. Universal logic abstracts, as such, from all content of the knowledge of the understanding and of the diversity of its objects and has to do with nothing but the simple form of thinking.

2. As pure logic, it does not have any empirical principles, hence
 5 it does not draw anything, as people have at times persuaded themselves, from psychology, which therefore does not have any influence at all on the canon of the understanding. It is a proven doctrine, and everything in it must be completely certain *a priori*. "It considers only logical form in the relationship of the objects to one another,
 10 that is the form of thinking in general" <Ibid., p. 79>. It abstracts from all reference of knowledge to the "object". It deals with the understanding form that can be procured from the presentations, no matter where they may have otherwise originated (whether they are given in us ourselves *a priori* or empirically) <Ibid., p. 80>.

15 He explicitly divorces universal and applied logic. It is in substance what I called a theory of an art, an art of thinking intertwined with psychology. Unfortunately, Kant does not distinguish the purely theoretical nature of the formal laws of logic from their normative use. Obviously, for Kant this universal, pure logic comes down to a
 20 sorry apophantic in the sense of traditional scholastic logic, while he does not recognize that the formal mathematical disciplines belong within the unity of the same science. For example, <he> brings pure arithmetic into an entirely inadmissible relationship to time. 113

3. As concerns transcendental logic, on the other hand, it does not,
 25 as universal logic does, abstract from all reference of knowledge to the "object" (for Kant, that means reference to reality). According to him, it starts with the distinction between pure and empirical thinking about real objects and sees its goal in rules of pure (= *a priori*) thinking about such objects. Such theses point to an *a priori* ontology.

30 However, despite their kinship, really partial overlapping, with Kant's transcendental logic, one will not be able to identify the idea of such an ontology in the sense we have in mind without further ado. The difference mainly arises from the different conception of the meaning of a critique of knowledge and phenomenology in relationship to logic in each of the definitions discerned. Attention would
 35 also have to be turned to the Kantian distinction between transcendental esthetic and transcendental logic, which I cannot go into here. According to our theory, space and time as necessary forms of reality

- would belong in metaphysical ontology, spatial and temporal phenomena, though, in phenomenology, about which we shall still speak in great detail. I would again like to mention that Kant brings in the contrast between analytic and synthetic thinking in relationship to these distinctions. For him, the sphere of analyticity coincides with the sphere of the purely logical in the sense of the apophantic, only that Kant, as already repeatedly mentioned, did not understand the nature and position of formal mathematics. The manner in which he defined the concept of analyticity is, no matter how proud he was of it, altogether inadequate, really fundamentally wrong-headed. The synthetic *a priori* in no way coincides with the *a priori* of transcendental logic and transcendental theory of space and time either.

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<§24. *A priori Metaphysics as a Foundation for Logic in the Sense of the Theory of the Art of Scientific Knowledge*>¹⁴

- By means of these last considerations, we have achieved significant progress. We have placed formal logic as the most universal science of predicative forms and the formal categories of objectivities pertaining to them into the proper relationship with metaphysics and have distinguished the metaphysics of actual reality from the *a priori* metaphysical theory of being that is a general basis of all individual sciences of reality. With this, we also understand that discipline's relationship to logic *in the original sense of a theory of the art of scientific knowledge*. A theory of this kind, which is really not merely intended to be helpful to us in our formal reasoning process and in judging theories in terms of their formal makeup, but also in our theoretical mastery of the empirically present reality, will have an *a priori* theoretical basis in, not only formal logic, but also in real ontology.

- In order to be able to set up rules for a fruitful empirical-scientific method that is to provide us with actual knowledge of what is empirical, we must understand the sense or essence of empirical science. Belonging to this in addition to formal logic is an understanding of the basic concepts and principles that <are> necessarily common to

¹⁴ Compare Appendix A V (Editor's note).

all these sciences insofar as they are sciences of the real. Of course, *in praxi*, people are satisfied with relatively fluctuating concepts for the goals of regular orientation in the world of appearances and do not need a complete, exact formulation of the pertinent principles belonging to the essence of reality as such. That takes vengeance, however, later on in the different possible interpretations that are left over concerning all the results.

If logicians take the goal of knowledge in the strict sense, as they as philosophers will normally do, then they require definitive knowledge from the sciences and, consequently, metaphysical consummation. Accordingly, they will necessarily have to resort to the basic concepts and *a priori* basic laws of reality as such for fixing the idea of a science of reality in general that is to serve them as a normative goal. This circumstance, therefore, completely accounts for the *conception of a priori metaphysical ontology as a logic*, more precisely as a branch or chapter of logic in the sense of the theory of the art of knowledge. If one, however, excludes normative and practical epistemological aspects and inquires into the theoretical investigations related to science as such, then formal logic (as an ontology as concerns simple form) stands out as a science that is complete in itself and metaphysical ontology as a discipline different from it, though connected to it through an *a priori* relationship.¹⁵

¹⁵The old metaphysics, which claimed to be an *a priori* science, distinguishes between ontology, cosmology, theology, psychology. Cosmology: theory of space and time, etc.

<Part II

NOETICS, THEORY OF KNOWLEDGE,
AND PHENOMENOLOGY>

NOETICS AS THEORY OF JUSTIFICATION OF KNOWLEDGE>

<§25. *The Role of Subjectivity in the Sciences*><(a) The Recourse to Subjective Sources of Justification.
The Exclusion of Actual-specific Individuality>

5

We are now once again taking a new step. The idea of a theory of science has not yet satisfactorily come about in every way through the thoughts so far, whether we were abiding by the standpoint of a science of reality, or that of science in general. In
 10 defining formal logic, our attention was directed toward the composition of sciences and theories. And, theories were systems of propositions in which the characteristics of things (*Sachen*) came to meaningful expression in terms of being and state, in terms of arguments and conclusions. The theories rested on individual
 15 propositions, and every proposition expressed a state of affairs within the respective domain. For this reason, the theory of forms and theory of laws of propositions and of relations of inference among propositions had at the same time, in a correlative conception, the character of a theory of forms and laws of states of
 20 affairs, therefore, of a formal ontology. And, likewise, the real categories and the accompanying laws stated something about the things, not in terms of mere form, but of content.

We quickly notice, though, that in scientific discourse, and even
 117 in that finding expression in scientific treatises, not all concepts and
 25 propositions have reference to things in this manner—expressing their formal or real nature. *Subjectivity also finds expression in the sciences and determines the meaning of many propositions.* Only were we to restrict ourselves to the purely mathematical disciplines, and even to the formal ones, could we fail to see this. In these
 30 disciplines, only exceptionally does it happen that anything other than objective theoretical concepts and propositions is expressed. It is different in the natural sciences. There, subjectivity enters into the sphere of scientific discourse on a broad scale.

We must, however, separate what is extraneous to essence from what is essential, what is logically meaningful from what is logically meaningless. Logically extraneous to essence is any recourse to historical facts concerning research, therefore, statements about who discovered one theorem or another, who contested it, who correctly or incorrectly proved it. Likewise for any account by scientific writers of the motivation and reason for their research. There are, however, other forms of subjective discourse that dispense with historical reference to the individual engaging in research or arguing in support of it, or to the circle of colleagues and readers, or where it is not the historical or psychological facts that are essential, but an argumentation interwoven with them based on the essence of the acts performed.¹ The proposition then states *that if or because an intellectual stand of such and such a kind is taken, a certain further stand is rationally required or justified*. For example, even in mathematical expositions, it happens that after developing a train of thought expressing something purely objective, the person expounding it continues: This being established, the question is justified... or the assumption is justified. Or, if one is sure that proposition A holds, then one can no longer doubt that proposition B holds, since the latter is derivable from the former. And other such ways of talking. They do not simply state mathematical states of affairs, but say something about our judgment and its certitude, about our questioning, assuming, etc., namely with respect to its justification. One occasionally hears: "We must already admit proposition A, because it is a direct Evidenz, an axiom, or perspicuously provable from direct Evidenzen". Or, we do not indeed know whether A is, but according to the theory already developed we have "grounds", a "right", to assume it, to consider it probable, etc.

In the given instance, the individual may be a specific person, or a circle of colleagues thought of empirically, though not specifically

¹ Attention is again to be drawn to historical research (historical science) that brings subjectivity along with its occasional concepts. In general, there is a difference with respect to the role of subjectivity in the historical sciences and in the nomological sciences and the concrete natural sciences as well.

indicated, as being the party engaging in such questions, cognitive acts, assumptions. But, the moment there is talk of the justification of such an act, all specific individuality can be eliminated, and only in this elimination do the pure grounds for justification emerge, for example, of the type: If someone in general knows this and that, and does not know anything else, he or she is justified in assuming in such and such way. The justification of the corresponding assuming, asking, etc. is grounded in the essence of a knowing and not knowing determined in such and such a way in terms of content. Naturally, knowing, assuming, asking presuppose an I, but whether this is a human or animal, divine or angelic I is unimportant. Suppose that a dice is tossed and "one" knows no more than that all of the sides of the dice except for a single one are unmarked and the last one has been given, say, one spot. That the certain conviction that the spot will come up is then unjustified, that rather the assumption that a blank side will appear is preferable, but only to a certain extent justified, is evident. If water sprites or angels were to toss, judge, assume, they would be behaving unreasonably or unjustifiably, were they to behave in a way other than precisely the way the nature of the state of knowledge and assumption calls for there.

<(b) Consciousness of Justification in the Empirical
and in the Pure Mathematical Sciences>

In this manner, subjectivity plays a big role, and in the empirical sciences really almost a prominent one. If we take the completed rational theories and their systems as advanced in mathematical mechanics, astronomy, optics, etc., then we obviously find nothing but propositions presuming to express the nature of things. The system of substantiation is thoroughly apophantic. In accordance with laws of formal logic, proposition is here linked to proposition. The theory has its mathematical form and is subject to the prototypes and laws of the theory of theories, of the formal *mathesis universalis*. About the substantiating itself, nothing is said there. People speak purely objectively about propositions or things and what follows or does not follow from them. *But, a major part of science is prior to rational theories. Deductive mathematical theory can only be*

established after the basic principles expressing it are substantiated, and these are not once again substantiated apophantically, but in the empirical sciences their substantiation is often accomplished through a vast array of observations, experiments, inductive findings, and formation of hypotheses. Perceptions, memories, expectations, suppositions, assumptions, and so on, have their role to play there, and belonging to the essence of these acts are *principles of substantiation* that, step by step, set norms for evaluating the judging of justification.

- Acts are not merely performed psychologically in individuals working in empirical science, as the actual empirical context and empirically psychological system of laws entail. Scientific acts are sustained by *consciousness of justification* and are constantly organized and modified from the perspective of “reason”, correctness, justifying motivation. *Reason requires* that such and such acts be performed, or that, when such acts have been performed, others determined in such and such a way in terms of content be based upon them, and that in specific ways they, in turn, then be evaluated, sanctioned, judged as establishing justification. We exclude, however, the mythical talk about reason when we look at the contexts in question themselves and see that the justification requirements are grounded in the essence of the acts and that, independently of the contingency of the individuals and their psychological peculiarity as human or non-human, forms of substantiation are justified and others unjustified that have their mainstay in the general essence of just such acts, of perceptions, memories, expectations, of judgments, assumptions, questions, etc.

- Let us use the following reflection in addition as an illustration: *Natural science begins with the givens of common experience*. However it dethrones the preconceptions and illusions of naive insight in every sphere of experience and gives compelling reasons for their futility, it does not, however, dismiss on principle the experiential basis upon which natural reflection on nature rests. On the contrary, its sole intent is to comply with experience. In its eyes, therefore, experience justifies, and this implies that perception justifies, memory justifies. Under the same circumstances that were grasped in perception and memory, uniformly, and without exception, recurring results ground justified expectations and ground justified assump-

tions upon universal assertions about the occurrence of results of the kind concerned when accompanied by analogous antecedents.

- Everyone knows that perception, memory, expectation deceive, and yet they justify—not the absolute certainty of the existence of the matters of fact perceived, remembered, expected, but the reasonable assumption, nevertheless. When natural scientists state a fact, what is the justification for the stated proposition traced back to? Ultimately, only back to such subjective acts. In the simplest cases, when the question of justification is raised, they cannot reply otherwise than by saying that that has been observed to be so, or, it is so because I see it, or I have seen it, which better signifies: I have a clear memory of it. And, that this recourse to subjectivity justifies is evident. It is evident that without resorting to such justification, matters of fact in general could no longer be grounded, not even their existence. Matters of fact external to all knowledge cannot, though, be anything for knowledge. They are not facts for knowledge and do not refute any would-be facts for knowledge. Therefore, perception ultimately refutes perception, or more universally, acts of so-called experience refute the justification for other acts of experience, i.e., other acts in which factuality was presumably displayed.

- All that is, obviously, expressed very roughly. Simple seeing, perceiving, visualizing to oneself in memory, empirically expecting do not matter. Needed is *method*. Needed is the grasping of what is perceived in thought. Needed is identification establishing unity among repeated perceptions about which we say that “the same” object is perceived in them. *Consciousness of unity must run through the separated acts*, and likewise a consciousness of difference in going from the perception of an object *A* to that of an object *B* must make it possible for us to state that *A* and *B* are not the same, but different. And needed is *predicative synthesis* for object and property to separate and yet put themselves together again into one, etc. Only in that way do predicate forms occur in mental acts and authentic acts of thought first develop thereby: judgments, assumptions, hypotheses, doubts, questioning of content, that *S* is or is not, that *S* is *P*, or whether *S* is, or if *S* is, *P* is, etc. And, in all these modes of intuition and forming in thought of what is given in intuition are grounded in certain theoretical principles presenting the norms of correctness and incorrectness for such acts and act contexts.

Though logical forming and corresponding predicating are effected on the basis of “experience”, that sort of thing does not have the value of ultimate knowledge without further ado. Methodologically, thought advances from logical procedure to logical procedure. It is not merely expressed by means of perceptual judgments and common empirical judgments. It does not cling to the supply of direct intuitions. Rather, it moves further and further away from them, and looking at the theories that are the pride of natural science, we see that their principal theses are totally remote from intuition. The direct seeing of perception or concrete experience, the direct abstraction and logical forming based on them, do not yield anything resembling these basic principles. I simply call to mind the basic principles of mechanics, of optics, etc. And, yet, everything claims to rest on experience, to originate in it in the final analysis. *Therefore, subjective acts provide the reasons for everything.* And, even in advancing further, what has its reasons is once again subjectivity. Over and over again, judgments, assumptions, questions, etc. are justified or rejected, substantiated or refuted.

In the mathematical disciplines, I said, things of that sort are unimportant. But, even there, the justification for establishing the basic principles can, though, and must, be inquired into. They are to be truths. But, by what right are they declared to be that? Well, by “Evidenz”, by “apodictic insight”, people say. Therefore, apodictic Evidenz justifies. Apodictic Evidenz, the consciousness of necessity, seen, actually experienced (and not just spurious and presumed) is, though, *something subjective*, a singular experience, and in it lie grounds for justification. Each mathematical step taken, if we view it as a step in judgment in actual proving, has its justifying grounds in the *Evidenz of the deductive reasons*. If I see the basic principles, or if I am at least convinced of their truth, then I have a right to judge the theorems, to admit them as truths, because I see that they are implied in the basic principles, are to be judged from out of them by means of perspicuous inferences. *The justification lies in the context of the reasons for judging.* That in this purely deductive sphere, the justifying perspicuity is exclusively and fully determined by the form and order of the predicative meanings, means that we do not have to state the subjective moment of judgment and the judgment’s Evidenz at all, but that it is enough to set forth the propositions and systems of propositions after the fashion of an objective theory.

<(c) Objective Theory Requires Subjective Sources
of Legitimation, but Does Not Investigate Them>

Now, however, doubt arises. According to what has been discussed up until now, does not everything, even objective theory, ultimately disintegrate into subjectivity? Does not the true meaning of objective theory with all its purely logically connected propositions lie in subjective associations? Perhaps, there is a kernel of truth in this. Here, though, the following is to be said in reply:

1. When, in a purely objective theory, we let proposition follow proposition and depict them as logically linked, for example, in the form: From propositions *A*, proposition *B* follows, or states of affairs *A* determine states of affairs *B*, then we have a purely objective situation. We are not talking about our or anyone's judgment in general, but about propositions and states of affairs. We are not saying that a judgment of content *A* justifies being convinced of the content *B*, or anything of the kind.

The theory figures as a system of propositions in which the system of objects and the states of affairs relevant to them is logically expressed. By thinking out the theory, or thinking the theory through, we dwell in subjective acts, we dwell in arriving at such and such convictions and assumptions. We experience their justification perspicaciously. *However, we are not concerned about subjectivity and its characterization. We do not investigate that.* Dwelling in this subjectivity, we look to the meaning content and objective content. We pursue the facts and their connections.

2. If one inquires into the right to affirm just such statements of propositions and to base them upon one another in that way, then one alters the course of reasoning. One is then pointed in the direction of apodictic Evidenz, of that perspicuous necessity that directly justifies our axioms and likewise justifies every logically formally justified step in reasoning or, where it is a matter of empirical fields of investigation, pointed in the direction of subjective acts that legitimate statements of matters of fact as empirical certitudes, as assumptions. One is pointed in the direction of perception, memory, in the direction of perspicacious assumption on the basis of varied experience, etc. All this can be, and often enough is, reflected upon in scientific thinking and is also seldom spoken about. Science by all means wishes to

make only assertions whose legitimacy is well-established. Nothing without a sufficient reason! That is the principle of science.

- On the other hand, it does not address this constantly and in each step, and it practically does not address it at all in the construction of the definitive theory. It does not do it constantly, even in theoretical universality, because subjectivity and its justification are not the object of its research. It does not investigate Evidenz, justification of perception, experience, etc., but rather the subject matter of its field. *It needs those sources of justification, but it does not investigate them.* On the other hand, since it needs the sources of justification, it will have to address them. That is also universally the case. Only in the spheres of purely deductive disciplines and theories does this not take place, and for special reasons. There, one can really be confident that everyone will experience the perspicuity of the deductive procedure. A person just has “to think it over”, delve into the meaning of the propositions and systems of propositions. The necessity of the inference will then surely become clearly evident. One only speaks objectively. One formulates the basic propositions at the top and then continues: From these follow propositions (1) and (2), from these in turn proposition (3), and so on. The simplicity of the question of justification in the sphere of deduction, namely, the fact that the same source of knowledge, apodictic Evidenz, comes into consideration over and over again there, and that this consciousness of perspicuous necessity is altogether bound up in established forms of the interconnections of meaning means that universally in spheres of deductive theory, questions and sources of justification need not be reflected upon and addressed.

<§26. *Formal logic Is Not the Science of Subjective Sources of Justification*>

<(a) Formal Logic Does Not Themmatize Apodictic Evidenz>

- 30 *To which science does the systematic investigation on grounds of principle of the sources of justification of knowledge then belong?* It is a question of a matter concerning all sciences alike, therefore, of a science-theoretical matter. Is formal logic, which first appeared to us as the universal theory of science, this theory of the sources of justification?

The answer will have to be no. *Not even in connection with deductive-theoretical thinking*, to which it is especially related, *does it engage in the investigation on grounds of principle of questions of justification*. Formal logic looks towards scientific theories, towards their propositions and logical systems of propositions in the specific sense. It abstracts the forms from this, lays down the basic logical theorems grounded in the essence of these forms as axioms, and builds purely logical theories upon them.

This is how the law of contradiction and the excluded middle, the law of double negation, and so on, are formulated in apophantic logic, in arithmetic, the theorem that the sum of two numbers is independent of the order in which they are added, that adding *a* units and subtracting *a* units changes nothing, and so on. And, inferences are then deduced from the axioms. Consequences are purely logically derived, the different syllogistic theses, the arithmetical theorems, etc. Here, it is *numbers, predicates, propositions* that are dealt with etc., *not sources of justification*. Naturally, each step in deduction is accompanied by Evidenz and is performed with consciousness of its legitimacy. Otherwise, the method of logic would not be a scientific method. But, this consciousness of legitimacy and what it substantiates is not the object of investigation. Nothing at all is even said of it.

What we said earlier about all expositions of deductive theories and theoretical disciplines carries over here. *Formal logic is itself, in turn, a theoretical discipline* (hence, as regards its content, it is subject to the laws it itself lays down). It is, therefore, expounded purely objectively and, moreover, it is seen as obvious that all people thinking about it would experience the perspicuous necessity in their judging if they oriented it in conformity with the propositions and systems of propositions expounded, and that if the question of justification were raised they would point to that perspicuity as the reason for the legitimacy. *If, however, we inquire into justification on grounds of principle and universally, then subjectivity*, for example, here, the perspicuous necessity of the judging, *must be resorted to everywhere, and what constitutes the legitimacy of mathematical and formal logical judging and, furthermore, the legitimacy of all other intellectual behavior aiming at knowledge, must be universally taken into consideration*.

- Only one thing could lead one astray here. Does not formal logic imply *eo ipso* the general justification of every deductive theory of every sphere of science in general? It is theory of theory in general. It deals with laws to which all inferences, all theories and deductive disciplines are subject in mathematical universality and which they must satisfy in order to be proper theories. Of course, had we already secured the legitimacy of pure logic, then it would serve as the universal source of justification for any deductive theory. *But, pure logic itself does not deal with what ultimately constitutes the legitimacy of deductive theories, with apodictic Evidenz*, but with proposition forms and the laws to which the truth of propositions are subject by their form. The concept of truth, but not the concept of Evidenz of judgments, is purely logical. The fact that the Evidenz hinges on the proposition form makes pure logic possible, but is not itself purely logical knowledge. 126
- Hence, it is clear that, understood in our sense as formal and universal mathesis, formal logic is not a theory of sources of justification. It is an objectively theoretical discipline, as good as any other, that then also, like any other, claims justification for its inferences, and is also surely justified, and in both research and teaching also establishes this by testing, but it does not have justification as an object of investigation, any more than it universally investigates justification in general on grounds of principle.

<(b) The Difference Between Formal Logical and Inductive
Substantiation>

- And added to that, naturally, is also that, as can already be seen above, formal logic does not, by far, bear a relation to all the scientific procedures occurring in the context of the sciences, that various things not governed by this formal theory of theories are also called theories and, in a certain sense, are rightly so called.
- Up to this point, we have oriented use of the word theory towards examples like theoretical arithmetic, theoretical theory of quantity, theoretical physics (theoretical mechanics, etc.). There, theoretical obviously means much the same as purely deductive, therefore, essentially much the same as mathematical, and that is logical in the sense of formal logic: drawing out of preestablished propositions,

and especially universal propositions, what is *a priori* apophantically contained in them.

Of course, we had contrasted theoretical and practical disciplines earlier. Among the non-practical disciplines, however, we especially had in mind the theoretical ones, in a narrower, more concise sense, that are ultimately aimed at the development of deductive theories, as is quite the case in the abstract or nomological natural sciences.

But, in these sciences, the deductive theory that organizes all the systems of laws of the natural realm under certain basic laws and analyzes deductively by means of them is the aim of scientific endeavors, but not the starting point. And, prior to the beginning of that theorization as deductive analysis lies quite a bit: the entire sphere of inductive substantiation that first has to give us the basic laws with which, as we discussed earlier, deductive analysis must begin.

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So, *before theoretical physics* there is *experimental physics*. In a certain obviously different sense, experimental physics also “theorizes”. It proceeds in accordance with rigorous methods. By means of them, all experimental findings and assertions acquire their justification, their status as well-founded, scientific findings. And, by means of systematically ordered sequences and combinations of such findings, the groundwork for the construction of explanatory theories is ultimately procured, the major theses of the theoretical disciplines acquired. The law of gravity, the basic laws of mechanics, and so on, can then for the time being be put forth as hypothetical bases of explanation. Through the experimental or empirical verification of the results derived from the deductive theories, they then acquire, and the whole theories thereby acquire, the character of being highly probable and, in this sense, of valid basic laws and theories.

But, *formal logic does not deal with the justification of all this substantiation without which the theories and their basic laws would be left hanging in the air*, not even in those indirect ways in which the logical laws span the entire sphere of all deductive theories as regards their deductive form and conclusiveness. In induction, formal logical conclusions are not drawn from fixed propositions with perspicuous necessity. One does not draw from preestablished propositions what is already implied in their meaning and by virtue of their form. Rather, one begins with statements having the character of experiential judgments,

and these are not considered in terms of their mere propositional meaning, but as judgments precisely having an experiential basis as regards their matter, as empirically grounded states of affairs, as “empirical certitudes”, we also say, that can make no claim to absolute validity.

- These empirical certitudes and, possibly, empirical assumptions then provide a basis for rationally justifying further certitudes and assumptions of this kind. From Tycho’s observations of Mars, Kepler inferred his laws, as one says. The observations of Mars themselves are not propositions to begin with. If one states them, one obtains statements about such and such position of Mars at such and such a time. From these propositions, one can naturally not then infer Kepler’s laws in a formal logical way, therefore, for example, that all positions of Mars, even all future ones, lie in ellipses, and then perhaps that planets in general move in elliptical orbits. There is really nothing at all of all that to be found in the meaning of those propositions. But, the empirical knowledge that the Mars observations and the statements established about them directly describe, indeed speak in favor of the assumptions, and the assumptions expressed in the form of Kepler’s law justify—or they ground the new empirical certainty (which, however, leaves being different open). Kepler’s law does not follow from the propositions in the logical sense as a logical consequence, but from empirical knowledge (which is actually only probable in nature) having such and such logical content, it follows (in the sense of probability and induction) that the assumption having Kepler’s law as content is justified.² *The formal logical relationships belong to the propositions. The substantiation relationships occurring in the present sphere do not simply belong to the propositions, but to the empirical believing, assuming, etc.* These intellectual position-takings are position-takings with regard to something, and here the word something stands for any proposition whatsoever.³ Therefore, propositions are always involved.

²That is naturally false. We have noetic and noematic theories of judgment in precisely the same way we have noetic and noematic theories of possibilities, probabilities, etc. The noetic and the noematic are likewise to be distinguished in the theory of experience and induction.

³The remainder is not correctly seen either.

We have the empirical belief whose basis in experience (and a justification “full” of certitude) is that the planets move in ellipses. Every belief is a belief that something is and is not. And, likewise, every question, every doubt, etc. The That-proposition expresses the “content” of the position-taking. The relative and absolute relations of justification of the position-takings are naturally co-determined by their content, but not solely determined by it. Only in the formal logical sphere of the “analytical”, of purely apophantic thinking are the substantiation relationships purely determined by the “content”.⁴

10 <§27. *Noetics as Investigation and Evaluation of Intellective* 129
 Position-takings with Respect to Their Claims to Legitimacy>

Purely logical relationships belong, I say, exclusively to propositions, to these “contents”. For example, when it comes to truth, every proposition of the form “*A* is” rules out every proposition of the correlative form “*A* is not”. That is a formal logical assertion. There the propositions figure as objects in their own right. They come into consideration precisely only as propositions. And, likewise, when we operate in concretely logical spheres and logically derive materially determinate propositions out of materially determinate propositions. We need not bring in those acts in which these propositions are given as contents of position-takings. And, it is in fact something different to say: From proposition *A*, proposition *B* follows, than, for example, to say: The belief, the certitude, that *A* is gives reasonable grounds for the belief, the certitude, that *B* is. And, it is even more totally different purely to look at the propositions and their logical relationships than to look at the position-takings of the assuming, questioning, doubting, refraining from judgment that have the same propositions as “content”. In the whole empirical sphere, especially, we cannot become engrossed in the mere “sense” of our statements (in the meanings of the statements) and dissect what we find evidently contained in them. That would be Scholasticism.

⁴All that is to be completely transformed in accordance with my later insights, say, from 1909 on.

In fact, the fundamental error of Scholasticism was that it overestimated formal logic, and although it would be a caricature of historical Scholasticism to say that it wanted to acquire all material knowledge of nature and metaphysical knowledge purely by means of formal logic, like any successful one, this caricature betrays a great exaggeration of the fundamental error. The tendency towards that was present. People engaged in formal logical analyses where they should have gone into nature itself. And, going into nature itself means systematically collecting, ordering, combining, “logically” processing perceptions and experiences. In these processes, however, where the mere meaning and vivid Evidenz of its formal logical treatment are not enough, attention must constantly be paid to the various subjective acts. *They must prove their legitimacy in reflection* and their legitimacy must therefore be submitted to scrutiny. Dwelling in perception is not enough. Perception deceives often enough. It is not enough merely to observe, however fine the instruments. Observations can mislead, can have various sources of error. The instruments can be made in the wrong way for these purposes, etc. It is not enough to make assumptions and naively trust in the legitimacy of the assumptions. There are unreasonable assumptions about which people feel perfectly fine. Well-educated predispositions, a trained feel for science, fostered by natural gifts accomplish a lot. But, involved in this is a systematic acquisition of many generations.

Just as in mathematics, under good guidance, one learns to calculate, differentiate, and integrate, and can proceed perfectly correctly without understanding the essence of the matter, so natural scientists can learn to process systematically and correctly without the least intrinsic justification of their procedures, without understanding anything about them. The wisdom does not lie with them, but with the creators of the methodology. They had to fight hard for each step in the methodology. They constantly reflected on the legitimacy of their new empirical knowledge. They submitted perception, memory, empirical universalization, probability inferences, etc., to ever keener scrutiny and fought a hard battle against the illusion and appearance that often enough undermine the value of all these cognitive acts. Of course, they wanted to investigate the facts, to understand physical or mental nature. But, how was one to lay hold of the facts? Where are the facts given, and how do they disclose their properties, their relations,

their laws? They seem to be given in perception. But, when can perception justifiably and indubitably say it yields the facts? And, when is memory, even clear memory, really information about what was? When do expectation and foresight really concern the future? And again, even where perception and experience can plead legitimacy, or where this legitimacy remains uncontested, how many and how few of these things really enter into the light of knowledge, and how does one go beyond this by means of induction, analogy, formation of hypotheses, probability?

- 10 All knowledge is realized as subjective act, and the subjective act must harbor within it what pleads and warrants its claim to legitimacy. Only in this is <the justification> to be sought. And in this, actually engaging in discernment of justification, dismissing doubtful claims to legitimacy by pointing to necessarily recognizable justification conflicting with them, is the permanent occupation of critical, systematically creative natural scientists. As concerns mediocre natural scientists, though, when it comes to method, 131 they are rather artisans who, of course, also exercise a critical attitude towards the justification of the knowing process, but without insight merely adapt to methodical routines learned, merely subsume or judge in accordance with mere methodical training. Natural scientists exercise this methodical criticism only occasionally, in concrete cases and when needed. And, consequently, it is not universal and radical enough either. Instinct and feel also play a major role for creative researchers and, in addition, verification by scientific success. With merely instinctive and intuitive clarity, a bit more headway is made. New theories are acquired that accomplish more, permit the mastering of greater fields of experience and the opening up of new ones. If one runs into contradictions that do not seem due to the facts, then one revises the method, one then perhaps discovers something suspicious, one makes changes, and then things go better.

- 35 However, as concerns method, matters cannot be left to rest with this chance way of proceeding centered on the special sciences. The particular method of a special science is proper to the individual science. But, it is also only a special configuration of methodological elements that are not proper to any special science, that are at work in all natural scientific thinking.

Any method, any established, programmed procedure for substantiating knowledge claiming legitimacy lies in the different intellectual position-takings that we include under the multifold *heading of knowledge*. All these position-takings are linked to one another by essence relations. All make claims to legitimacy as position-takings, and all these claims to legitimacy were partly made in their own right by the individual act, or are made by presupposing another earlier position-taking. Judgments substantiate other judgments. Judgments also substantiate assumptions, substantiate doubt, substantiate questions, etc. There is no science in which all these acts do not eventually occur, claim legitimacy, and consequently can and must be subjected to criticism.

It is clear that this is why there must be a *new discipline*, which in this respect focuses on all sciences equally by investigating all possible cognitive acts with respect to their claims of justification and their relative relationships of justification and which, moreover, owing to this universality extending over all sciences with respect to the meaning content of these acts, allows the corresponding universality to reign, which does not prejudice any special science. This universality is, however, none other than *universality of form*. And, the form of the meaning content does not influence questions of justification or substantiation just in the sphere of judgments, but also in that of assumptions and of other position-takings. The whole theory of probability is an outstanding example of that. In fact, in association with the theory of induction, it forms the largest area of the new theory of science.

What can lead one astray here is only the fact that the theory of probability is constituted as a mathematical discipline.⁵ In certain spheres, which are to be circumscribed precisely, the degrees of justified assumption are numerically determinable, and the accompanying basic principles make possible a purely deductive discipline, and one developing in quantitative, mathematical forms. But, that is not formal mathematics, as the basic theorems and basic concepts already teach. So it is that Laplace explained the basic concept of probability by that of equally possible cases, and he explained the latter as those about which we are ignorant

⁵The theory of probability is really a mathematical theory and a correlate of the theory of legitimate assumptions, which is a noetic theory.

to the same degree. Of probability, he says, it partly refers to our unknowing, partly to our knowing, etc.

Also belonging in here, is the *deductive theory of knowledge*, which stands in the most intrinsic relationship of all to formal logic as mathesis. This very mathesis, which legitimately proceeds in the way every materially oriented discipline does, but for which legitimacy is not an object of investigation, does not, as we remarked, belong in the science of justification of knowledge. But, what surely does belong in it is the universal consideration that every judgment that is in line with logical form and law, that oriented by inference forms and theory forms is open to substantiation on the basis of preestablished judgments, has evidently inspectable grounds for legitimacy.

At the beginning of our logical reflections, we took the fact that the Evidenz of deductive substantiation hinges upon form and law as our point of departure. Only, we subsequently dropped the judgments themselves, and the cognitive acts in general, in which the consciousness of legitimacy is realized, and to which alone the quality of legitimacy is attributable, in order to devote ourselves to the forms themselves and laws of form. So, logic was defined for us as mathematical theory of theories. Now, let us go back to that point of departure and turn our attention to the judgments and reasons for judgments that authentic substantiation presents. Where, with respect to its meaning content, a judgment violates the logical laws of form, it is evidently unjustified, is to be rejected *a limine* as illegitimate, and where it does not do this, then it is at least formally possible. And again, where judgments are given beforehand, and upon their established claim to legitimacy new judgments are made of such a kind that the meaning contents combine into the unity of an inference legitimate from the point of view of formal logic, then the judgment “deduced” on the basis of those reasons is legitimately well-founded. It is legitimate if the judgments given beforehand are legitimate. *So, the legitimacy of the judgment is in line with formal logical systems of laws. And, this fact certainly belongs in the universal theory of the legitimacy of knowledge.*

The time has now come, though, to think about terminology. If we keep to the historical tradition, the heading of logic also covers the group of problems now characterized. For, in all times, questions of the

justification of thought acts have played their role in accounts of logic, even though often a very paltry one and out of proportion to the extent of the problems. Since logic has mainly been perceived, and still is, as a practical discipline, as a theory of the art of knowledge, reference to the assessment of knowledge's claims to legitimacy was already established owing to this perception. From the theoretical, extra-technical perspective, the new discipline lines up as a discipline distinct from the *mathesis universalis*, though standing in an essential relationship to it. And, both equally belong under the idea of a universal theory of science. The term logic is, though, more suitable for this mathesis, for it signifies the theory of the *λόγοις*, therefore, of meanings (since the wording is, of course, nonessential). The theory of meanings in formal universality and of the formal mathematical discipline developing there is, though, that mathesis. More concisely, we wish to retain the term formal logic, but refer to the new discipline as *theory of norms of knowledge*, or even better yet as *noetics*. 134

I say better, because we do not understand it, as the expression "theory of norms" seems to signify, <as> a practical art of judging the legitimacy claims of alleged knowledge, but as a science that investigates cognitive acts (i.e., intellective position-takings by their nature making claims to legitimacy) one after the other out of pure scientific interest and evaluates the relationships of legitimacy belonging to them, both in isolation and in combination and based on one another. However, it realizes this evaluation by the detection of immanent qualities that, within every species of such position-takings, constitute the mark of true legitimacy, as opposed to merely presumed legitimacy (or, of proven and provable, as opposed to unproven and unproduceable justification). In the same way, it has to inquire after both the indirect and direct conditions of the possibility of justification grounding in the specific essence and meaning content of these position-takings.

<§28. *Noetics in Relation to Kant's Critique of Reason*>

Asked about the appropriate name for our discipline, the expressions critique of knowledge or theory of knowledge deriving from Kantianism, though not themselves Kantian, immediately occur

to everyone.⁶ In fact, the theory of norms, even though it is not itself critique of knowledge, nonetheless, makes such a thing possible and substantiates it. Cognizance of sources justifying knowledge will be of help in the distinction necessary in actual cognitive life between

5 genuine and presumed knowledge. Nonetheless, it must however be said that critique of knowledge in the sense of Kantian philosophy (and in the usual sense in which the word theory of knowledge is used) does not fully coincide with what we had in mind here under the heading of noetics.

- 10 Kant wrote a critique of pure and, more precisely, theoretical knowl- 135
edge. In it, he gave only a critique of *a priori* and synthetic knowledge. Namely, he was of the opinion that there was no need for a “critique of the empirical use of reason”, any more than for a critique of the purely logical (in his terminology, analytical) use of reason. The latter
- 15 takes the law of contradiction as its standard, the former experience. It is already apparent there that problems held sway over Kant that we have not taken into consideration, at least not yet. For, if one has realized that, in themselves and by their essence, cognitive acts claim legitimacy and have to be able to prove that claim in themselves
- 20 alone, then questions about this proof must be raised in theoretical universality for all types of knowledge, and nowhere can it ever be said that one way of knowing or another is not in need of any critique.

- And then even the sphere of empirical knowledge. Are not perception, memory, empirical expectation, induction, and analogy
- 25 in need of an investigation, and moreover, a very exacting one, of their legitimacy and the limits of their legitimacy? And, must not the sphere of formal logical thinking, and especially of pure deduction, also be questioned more closely as regards legitimacy? Pointing to contradictions into which one otherwise lapses cannot
- 30 be enough here.

The first attempt systematically to investigate the sources of knowledge was made in modern philosophy by J. Locke in his *Essay*. Right in the introduction, Locke described his purpose there to inquire into the origin, the certainty, and the extent of human knowledge,

⁶We must, of course, separate universal theory of knowledge parallel to formal logic from special theories of knowledge that run parallel to the regions of knowledge.

the grounds and degrees of belief and of opinion. Commenting on the last point, he also said that he wanted to search out the bounds between opinion and knowledge in order to examine by what measures, in things whereof we have no certain knowledge, we ought to regulate our assent, and moderate our persuasions. Many things come into the execution that are not pertinent to this general design, but we nevertheless find in Book IV <the> attempt at the systematic separation and characterization of knowledge and probability, and within knowledge the separating off of sensory knowledge, intuitive knowledge, and knowledge by proof, etc. About the place and natural limits of the discipline in which that belongs in relation to other disciplines, especially to metaphysics, formal logic, logic as the theory of the art of knowledge and psychology, he was not in the least clear, though, and for this reason, much to the detriment of philosophy and of further philosophical development, everything runs together. For our part, we already have full clarity in many respects. In other respects, <we> just have to attain clarity. We have not yet been able to make transparent the relationship to the groups of problems of psychology, on the one hand, and to those of paramount importance in the Kantian critique of reason, on the other, and thereby also to metaphysics.

<§29. *The External, Morphological Treatment of Noetical Problems*>

To begin with, I note that noetical problems can be dealt with in a twofold manner, superficially and in depth, macroscopically and microscopically, externally morphologically and internally analyzing and aspiring to ultimate insight, as it were, physiologically. Each of these approaches, moreover, has its legitimacy, even the external one. It ought thereby not be declared a flaw, but surely a shortcoming.

As far as this externally morphological noetics is concerned, the following tasks come up right in the beginning. One separates, therefore, for example, the different kinds of cognitive acts (and the moments belonging to the concrete unity of each for which questions of legitimacy are of importance). One separates those having direct intrinsic justification in themselves and those drawing justification from specifically constituted connections with other cognitive

acts, only possessing this justification by association and indirectly. One takes into consideration the participation of the meaning content of the cognitive acts in the legitimation and how the relationship between various kinds of states of affairs is set up by means of it.

- 5 Thus arises, for example, the question: What directly justifies the assertion of universal and purely conceptual propositions, in other words, what characterizes axioms? What justifies indirect assertions as absolutely certain? What justifies indirect assertions as relatively certain, namely upon presupposition of assertions of premises and
10 their presupposed legitimacy? What justifies direct assertions about matters of fact, about particular matters of facts of the present and past? What justifies universal assertions about matters of fact, etc.?

- In all this, one shows the distinctive character of an act proving legitimacy as opposed to a corresponding one simply claiming
15 legitimacy and secondly investigates the conditions under which the distinctive character of legitimacy is possible. For example, a mathematical theorem is asserted. This assertion can be made without justification, or without proof of justification actually given, as when people affirm, believe, but only believe, because the matter strikes
20 them as true. They proved the theorem at one time, or learned it from a book without really understanding, and so on. That produced a psychological after-effect. Now, they believe without really knowing on what grounds it is justified. And, on the other hand, the assertion with the same propositional content can be made perspicuously. It
25 is either “directly axiomatically evident” or “evident as proved from perspicuous axioms”.

- One, therefore, say, points to this distinction and especially points out the consciousness of the “perspicuity” of the “so it is and must be” in contrast to the vague forming of an opinion. Possibly, one
30 reflects upon this more inasmuch as one perhaps says: This distinction is to be grasped in examples; one sees that the judgment is characterized differently in each case. And, anyone having misgivings about that may just reflect *that if no distinction were present in consciousness itself, were never present anywhere, then there could*
35 *never at any time be any question of knowledge or of any science at all either.* What else could help us then? Verification by means of experience? But, to know whether experience verifies, the judgment presenting the verification must still be distinguished in itself from

any empty talk thrown in out of the blue. And, this distinguishing is again Evidenz.

- 5 In this way, one could, therefore, set the nature of the Evidenz, set forth the varieties of it by setting them out. Secondly, however, also investigate the conditions to which the nature of the Evidenz adheres, thus, for example, formal logical ones. *The whole of formal logic is a system of such conditions.* The Evidenz of judgments is bound to form and to laws pertaining to form.

- 10 An initial series of tasks and investigations is thereby indicated. Although they still remain on a superficial level and, with respect to the nature of justification are content with a simple showing and juxtapositions showing the differences, they have not been sufficiently dealt with systematically. More has been done in this respect regarding the investigation of the essential conditions of Evidenz (if we 138 wish to designate the inner nature of the consciousness of justification completely universally in this way). The intent of Platonic or Aristotelian efforts made concerning logic was aimed at the theory of justification of knowledge, and Aristotle was the first to succeed in precisely formulating some principles upon which the possibility of deductive Evidenz hinges. Further pursuing the consequences, he came to his syllogistics. (Of course, this culminated in our formal mathesis, which entirely freed itself from reference to the theory of justification of knowledge). What is lacking on the other hand, though, *is a systematic characterization of all the different varieties of Evidenz and the limits of legitimacy that they set for the corresponding cognitive acts*, likewise, a systematic investigation of the conditions of the possibility of Evidenz lying in the meaning content of these acts, therefore, a complete noetic theory of axioms.

- 25 Naturally, I do not want to say that valuable rudimentary work 30 <is> lacking in this respect outside the sphere of formal logical thinking and knowledge. Some are found in all logical works truly wanting to put forward all normative laws and rules. All in all, this is, though, a logic, or noetics, of the superficialities, of external, macroscopic differences, even though as such it already presents problems 35 enough. It must be supplemented by an anatomy and physiology of knowledge that pierces more deeply and radically opens up and dissects the essence of knowledge, where by physiology I understand a theory of functions that makes clear *the teleological relationships*

of essence of the different knowledge configurations to one another. One will surely also be able to say that that macroscopic morphology of knowledge and its system of justification cannot fully succeed without the deeper analyses, that without them the right meaning
 5 of what is essential and meaningful already lying on the surface of the superficialities is lacking, and this is why so much that is important remains overlooked and unformulated, while once it is noticed, it seems strange that it could have been overlooked.

10 <§30. *The Deeper Layers of Problems of Noetics and the Epistemological Problems*> 139

It will now be a question of characterizing the deeper layers of problems of our theory of justification of knowledge. Inextricably bound to them are the *problems of transcendental philosophy*, those most difficult of all scientific problems in general, upon which the sagacity of the
 15 greatest minds has exerted itself without conclusive success for millennia. And, they are all not only the hardest, but also the most important of all problems. For, the possibility of a scientific metaphysics depends on their solution, therefore, the possibility of a knowledge of reality that is not simply relative, practically fruitful, but (even if just to a modest
 20 degree) absolute, ultimate, as ultimate knowledge in general.

<(a) Neither Formal Logic Nor the Theory of Justification
 That Simply Shows Is a Sphere of an Absolutely Good Noetic
 Conscience>

Ultimate knowledge is knowledge that is so certain of the things
 25 known that what it establishes about those things can no longer be doubtful to it in any respect. It is the knowledge of an absolutely good conscience, knowledge that not only *de facto* knows things as they actually are, but also is certain beyond a doubt that it does, that is therefore in direct, actual possession of the noetic value of that attainment.
 30 After constituting formal logic and *a priori* metaphysics, do we then have (and, after that theory of justification of knowledge that simply shows, do we already have) that absolutely good noetic conscience?

In various individual sciences before theory of science, we plainly do not have it. Lacking in them is ultimate insight into the legitimated meaning of their basic concepts (in all the natural sciences, for example, with respect to their basic metaphysical concepts) and they also lack the insight into methodicalness, the crystal clear insight into what ultimately justifies their methodical procedures.

Historically, striving for this insight was the predominant reason for the creation of a theory of science. And, if we in fact had a theory of science (but also so completely and transparently as to be the pure product of an absolutely good noetic conscience), then it could easily help us to obtain such a conscience in all knowledge of individual sciences. Aiming at a theory of science, we then first turned our attention to the meaning of the statements out of which sciences are built and to their theory content. The predicative forms and laws pertaining to them stood out as conditions of the possibility of valid propositions, valid theories, and consequently sciences too. In this way, we obtain formal logic whose natural limits span all of formal mathematics. Our question was, then, whether this formal logic was already a sphere of the absolutely good noetic conscience. And, likewise, as a further consequence, was the logical discipline that appended itself the one simply showing theory of justification of knowledge?

The answer must be no. It already emerges with respect to formal logic, and real logic (*a priori* ontology of reality) likewise, that it proceeds objectively like any other discipline. It owes its good conscience to the legitimacy of its procedure, just like any other discipline. But, as long as no clarity is reached about the justification of knowledge in general, formal logic cannot defend the legitimacy of its procedure *with absolute certainty* either. It proceeds, we can say, in a *noetically naive* way. Needed are universal reflections on the value of knowledge and its achievements. We shall, therefore, refer to noetics. There, though, we soon run into problems.

To begin with, one could already uncover a problem in the fact that, though differently from formal logic, noetics is self-referential, not with respect to the form of its statements, but with respect to their sources of justification. Step by step, it indicates the cognitive acts carrying consciousness of justification with them, therefore, the kinds of Evidenz, as well as the conditions, upon which the nature of the Evidenz hinges in each case. Noetics itself, though, claims to

proceed legitimately. It itself uses the sources of justification whose value it should first prove.

- Greater problems arise, though. Exhibiting noetic differences, evaluating proof of legitimacy, even in theoretical universality, does not yet mean understanding the meaning and possibility of such appraisals of legitimacy, or in other words: *Understanding the meaning and possibility of knowledge that is valid, therefore, really aiming at objectivity*. What are we still failing to understand? Here there are different, really different, kinds of obscurity.

10 <(b) Questions About the Relationship Between Ideal Meaning and Real Act>

- I shall first of all begin with formal logic again. Formal logic, according to what we have said, is most intimately related to noetics. The connection is established by the fact that belonging to the essence of theoretical position-takings, especially of judgments and assumptions, is a “meaning”, which places us in the sphere of concept and proposition, and correlatively of object and state of affairs. In proposition forms, or forms of states of affairs, lie essential conditions of possibility of Evidenz of judgments and assumptions. Such conditions are generally expressed in the formal logical and mathematical laws. Now, here lie tremendous problems,⁷ problems of understanding, not mathematical problems. They do not involve the solving of problems within the logico-mathematical sphere, the filling of perceptible gaps in our knowledge that until now have mocked the efforts and sagacity of mathematicians. They lie in another dimension. They become perceptible to us when we inquire into the relationship of the formal mathesis, even ideally perfected, to psychology.

- All thinking and knowing is subjective, a mental act that comes and goes, begins and ends. Every mental act has, on the other hand, its meaning, its meaning content, and this must be, as we remarked, ideal and supra-subjective, something that does not come and go, for

⁷ Problems of meanings in themselves.

- which beginning and ending, temporal existence in general, are not applicable categories. Someone states the theory of the sum of the angles of a triangle, thinks, judges, and knows it. This thinking and knowing is that person's mental experience. What the person thinks 142
- 5 and knows must, however, be a truth. Now, does this mean, however, and this makes good sense, that a truth is what it is whether anyone whosoever thinks, states, knows it? We started with this distinction as something preestablished. It is given to us beforehand. Everyone knows it and makes use of it. In all scientific discourse, propositions
- 10 and truths are spoken of in this ideal, supratemporal sense. No one believes that the proposition of the sum of the angles of a triangle, or any other truth began with a subjective act of thinking and ends with it. People say that the truth is discovered. People take it as an objectivity in itself that must be found. And, formal logic then simply
- 15 accepts these objectifications, the true and false propositions, the non-contradictory and consistent concepts, takes them in the sense prevailing in all actual sciences. It investigates the forms of these ideal meanings and the laws to which the truth is subject purely on the basis of form. However, is not a big problem hiding here? A propo-
- 20 sition, especially, for example, a truth, is something suprasubjective, supratemporal, ideal, an act of thinking, something subjective, temporal, and psychologically real. How does the ideal come into the real, the suprasubjective into the subjective act? The judgment judges that *S* is *P*, that the sum of the angles <is equal> to the sum of two right <angles>, etc. The what of the judgment is the judgment content. Is that a moment, an isolated feature of the judgment, as green
- 25 is an isolated feature in the appearance of green leaves? But, with the real whole, its real parts, its real moments also come into being and pass away. If the green leaf passes away, then that moment of coloration has passed away. If the judgment passes away, then everything
- 30 that constituted the judgment in terms of parts or isolated features has passed away. *The proposition is, however, what it is, whether it is thought or not.*⁸ This same truth is acknowledged and seen by many individuals in many judgments. It is one. The acts and individuals are

⁸ Proposition in itself.

many. And, yet, the latter did not grow together, as if they truly had a piece in common.

- The objectivity of the validity of science hinges on the ideality of the meanings⁹ of these logical units, on their forms and laws of form. 143
- 5 Scientific theory is suprasubjective. It is valid. It is known subjectively, but is not the subjective knowledge of scholars or pupils. Its validity with respect to all its theoretically well-grounded results reaches beyond all subjective thinking and all thinking individuals precisely in that it is a body of ideal, legitimately connected meaning 10 units. The ideality of the meaning unit obviously first makes the ideality of all scientific theories possible. But, how is that to be understood then? If the meaning in the authentic sense is in the judgment, in the act of thinking, then it is just a part of it and then something real. It is not that, though. And, on the other hand, what 15 is the fact that the judgment has meaning, believes one proposition or another, sees one truth or another supposed to mean? How are the contrast and relationship between ideal and real objectivities in general conceivable?¹⁰

<(c) The Follies of Logical Psychologism>

- 20 Whoever strikes out on the wrong path here becomes entangled in the most absurd foolishness. This happens to psychologists in logic and, unfortunately, most living logicians rank among them. One should not, though, let oneself be fooled that lately, and perhaps due in part to the influence of my *Logical Investigations*, arguing 25 against psychologism tends to be fashionable, and suddenly no one any longer wants to have been in the cozy position out of which he or

⁹ Ideal in itself as meaning.

¹⁰ That is all rather generally expressed. To be distinguished within the problem, though, then is: (1) the ideality of the mathematical, the purely logical, the geometrical, the purely conceptual proposition; hence, corresponding classes of judgments and their ideal contents; (2) the suprasubjectivity of empirical, occasional propositions having temporary validity. The bird is flying: now, just as long as it is flying. The paper is white: now, as long as it is not colored, not burned, etc. Scientific judgments of selenology, botany, geography, even physics. Meanings of occasional judgments! In contrast to the meanings of non-occasional judgments.

she has been roused. As a rule, the new anti-psychologists still have not at all accepted the essence of the matter and while attacking psychologism they are still hanging in psychologism's noose.

- I have already said that most logicians have never achieved clarity
 5 about the distinctions between proposition and judgment, concept 144
 and subjective presentation, between ideal meaning and subjective
 experience of meaning first worked out by Bolzano. In this regard,
 one need only take a look at recent logical works, say, by Mill, Sig-
 wart, Erdmann, Wundt, etc. As a consequence, they lack the idea of
 10 formal logic. They have neither the idea of apophantics in the nar-
 rower sense defined by us, nor the idea of an expanded *mathesis uni-*
versalis, which alone opens the way to a genuine understanding of all
 mathematics. Since they do not see the pure ideality of meanings, of
 15 propositions especially, since they interpret the latter as judgments,
 as living mental acts, the formal logical laws naturally turn into laws
 of judgment for them. And, one then finds oneself in psychology.
 Judgments are indeed mental experiences. Laws for judgments must
 therefore be psychological laws, must state laws for psychological
 20 matters of fact. Apparently in agreement with that (and this has done
 its share to fortify the psychological position) is the fact that, from
 time immemorial, formal logical laws, like the law of non-contradiction
 and the excluded middle, the law of double negation, and so on, have
 been called laws of thinking. What are laws of thinking to be other
 than psychological laws?
- 25 Accordingly, since Beneke and Mill, for most logicians, and it
 is precisely they who are considered the most progressive, logic is
 considered a simple appendage of cognitive psychology. The essen-
 tial reason for the sterility of scholastic logic is supposed to have
 been that scholastic logicians did not detect this dependency or, for
 30 want of a genuinely scientific, empirical psychology, were not able to
 make proper use of it. Although, in spite of the anti-scholastic oppo-
 sition that has governed the development of modern philosophy since
 the Renaissance, traditional formal logic has been revived again and
 again and found staunch advocates in men like Kant and Herbart,
 35 this has been explained on historical grounds, by the natural power of
 prejudices that have become engrained over thousands of years, and
 so on. According to this perception, everything theoretical in logic
 ought, therefore, belong in the psychology of knowledge, therefore,

in the broader context of psychology in general. Logic's justification of itself as one of a discipline distinct from psychology could then only be justifiable from a technical viewpoint. Logic, therefore, as a theory of the art of, a technology of knowledge, is every bit as oriented towards the psychology of knowledge as, for example, physical or chemical technology is towards theoretical physics, theoretical chemistry.

I spoke of absurdities in which this logical psychologism entangles one. They show in the consequences that some psychologists have drawn, and with strict logical consistency, from their standpoint. I especially mention B. Erdmann and Heymans here. However, inconsistencies also become conspicuous, though are not so widespread, in all other psychologistic logicians, as it cannot otherwise be. What kind of inconsistencies, contradictions, even blatant absurdities are these? I can only appeal to examples. (You will find a detailed and quite exhaustive exposition and refutation in the first volume of my *Logical Investigations*.)

The so-called laws of thinking are, therefore, supposed to be psychological laws. Accordingly, one would have to grasp, and be able to grasp, the statement of the laws in such a way that they actually present psychological statements. And, it is a remarkable fact that the meaning of the statements concerned, as they were given in a completely understandable way by traditional logic, is quite inflexibly opposed to psychological interpretation. If one looks at the different psychological interpretations that have been attempted, and could be only attempted, one sees that statements result signifying something entirely different from the good old laws of thinking.

Let us take, for example, the law of contradiction. It says that of two propositions, one of which affirms what the other denies, one is true and one is false. People have tried in vain to say psychologically for this: Two contradictory judgments cannot be thought together, judged together; in no human consciousness can such judgments be consented to at the same time, and so on. On the one hand, those would be empirical statements about contingent facts of nature that, like all such facts, could only be substantiated by experience and induction. But, it is evident that every law of thinking says something that holds *a priori*, that cannot be confirmed or refuted by any experience. How would one substantiate inductively, or in any way at

all, something without which no statement in general could be meaningfully valid, since every step in the substantiation is realized again in the form of propositions, propositions that claim to be valid, and that, therefore, already presuppose that without which the talk of the validity of the proposition could no longer make any rational sense. The moment we question the law of contradiction, therefore, question whether yes and no are not in the end mutually self-exclusive with regard to the same content, we cannot affirm anything more at all. If we say "so it is", it is really not excluded that it is at the same time not so. What would the nonsensicality of a proof or an inductive argument for such a principle therefore require?

And moreover, does this involve limiting the law of contradiction to a single consciousness and, again, restricting it to a human consciousness? If I judge *A* and someone else judges not *A*, does not the law of contradiction also say there that one of the two is correct and one false? And, if we imagine an angel, centaurs, and gods as judging, does it not always remain the case that their judgments would be false if they held contradictory things to be true at the same time? Psychology is, however, an empirical science. It deals with matters of fact of the inner lives of human beings, and possibly animals, as known by experience. It does not deal with the angelic and divine. Naturally, we also do not say that logic deals with angels and gods, but rather it deals with propositions and, correlatively, with states of affairs in general. It says, for example, that when otherwise identical in meaning, propositions standing in a yes and no relationship to one another are in truth mutually exclusive, or that if in reality *S* is *P*, *S* cannot in reality also be not *P*, and so on.

This example may suffice to expose the foolishness of the interpretation of logical propositions as psychological, therefore, empirical, matter of fact assertions. And, this foolishness is obviously no less great if we interpret syllogistic laws in an analogous sense and, for example, as Heymans has done, draw parallels with chemical formulas. The harm produced as further consequences of the psychological viewpoint in formal logic becomes all the more blatant inasmuch as it urges an absurd relativism and anthropologism. Here too, I want just briefly to appeal to examples.

Psychological laws are laws that transcribe the inner nature of human beings (and possibly of animals). This inner nature is a

- matter of fact. Under the circumstances of nature as a whole, human beings have over time developed into precisely the beings they actually are. Under other circumstances, they would have become something else, and in the state of flux of constantly changing biological circumstances, they will probably also become something else. *Psychology as an empirical science naturally concerns human beings as they actually, empirically are.* If in the struggle for existence, a supraman displaying essentially different psychological characteristics were to develop out of human beings, then psychology would also acquire a new content. Were logical laws, then, laws to be classified in human psychology, as is the opinion of the psychologists, then they would express mere matters of fact of a human being's actual inner life. They could, therefore, be something possibly variable. Their variation would certainly be imaginable. Logical supramen would be conceivable for whom these laws would not be valid, whose thinking would no longer be subject to these laws. That suits psychologists quite well. It is actually, in our very times, a very popular contention that logical laws, just as all psychological and biological laws in general, signify mere adjustable matters of fact. The Frenchman Ferrero has formulated this view assented to by consistent psychologists in somewhat drastic terms saying: With the changing of the brain, logic also changes. Indeed, he even believes that human development has already evolved beyond Aristotelian logic, which is a mere relic, and the fact that we still allow it attests to the colossal intellectual laziness of the human race in our times. For my part, I must frankly confess that if the choice is between Ferrero and Kant, it still seems much more acceptable to me to look for the colossal intellectual laziness on the part of Ferrero, and not Kant. Rather a lot is certainly asked of us there.
- The inescapable consequence of psychologism and biologism is a skepticism that is in essence laden with the same absurdities as the ancient skepticism of the Sophists. It is characteristic of all skeptical theories that they are absurd in their own distinctive way, namely, inasmuch as the content of their theses and theories denies precisely what in the absence of which their theories themselves, and as such, would lose any meaning. The extreme skepticism of someone like Gorgias says that there is no truth. Precisely in saying that, though, he is presupposing, as does anyone making an affirmation, and in

doing so, that there is a truth, namely, the one that he is uttering and defending there. It is analogous here. Those who, in psychological or biological theories of the development of the human brain and inner life in connection with nature, < speak > of one psychological law or another and of the possibilities of their changing are speaking of these things as of matters of fact that in truth are. They are making statements about this that in truth are to hold. Every adoption of a truth presupposes as absolutely valid, though, what is inseparable from the meaning of the truth, without which truths as validity units would lose their rational sense. And, in so doing, they presuppose logical laws. Even if it is affirmed there that it is possible that our laws of thinking will one day not hold and in their place others will for higher levels of development of humanity, this very affirmation of < the > possibility lays claim, however, to being a truth. It presupposes, therefore, that this possibility and its opposite do not obtain at one and the same time, since it would not otherwise make any rational sense to affirm this possibility as obtaining. Even the affirmation of possibility is an affirmation, and the proposition excludes its exact opposite, or making the affirmation and defending it as right, the only right one, loses its rational meaning. If, however, one rescinds the absolute validity of the law of contradiction, which precisely says that of two contradictory propositions, one is true and one is false, if one rescinds the validity by just taking it to be a contingent matter of fact pertaining to our constitution at the time, then one is stuck in skeptical absurdity. The theory that one is advancing, the psychological possibility that one is defending, presupposes the absolute validity of the law of contradiction, and one is denying precisely this absolute validity *in thesi*.

In this fashion, one can then obviously show by means of careful analyses the wealth of drawbacks of a psychologistic interpretation of formal logic and thereby refute it. But, the problems involved here are not thereby cleared up. It is not enough just to proclaim one's allegiance to an idealistic interpretation. One cannot take pleasure in the modified viewpoint, despite its consistency. Tormenting intellectual disquiet is a sign of problems that have not been cleared up, of the lack of the intrinsic understanding that one cannot and does not want to be without. Fine. Formal logic cannot be interpreted psychologically and empirically. But, how is the essential relationship

of formal logic to the establishing of norms for all thinking to be understood? Are not logical laws justifiably called laws of thought? And, can laws of thought be separated from psychology? By means of our analyses, we have by all means already attended to a bit of preliminary work. We no longer confuse act and meaning. We know, and this already implies significant progress vis-à-vis the muddled state of ordinary logic, that formal logical laws are pure laws of meaning. But, then, the problem is to understand how meanings enter into actual thinking and what they are in it when they, as the word indicates, are “contents”, and to understand what it means for a meaning, more precisely a proposition, to be a truth, and for a law of meanings to express a prerequisite for the possibility of judging justified with respect to the form of its meaning content. 149

<(d) The Problem of the Relation of Intellective Acts to Objects>¹¹

15 In previous reflections, we have merely attended to meanings and discovered problems in their ideality vis-à-vis the subjectivity of meaning-conferring thinking of the moment. Now, let us take a look at the *objective side*.¹²

That true propositions, true inferences and proofs, scientific theories are valid means that they refer to existing things (*Sachen*). The things are not, however, meanings, “thoughts”. The law of gravity holds for gravitating masses. It is not itself a mass. The law of gravity meaningfully expresses a universal state of affairs of nature concerning gravitating masses. The proposition is not itself the universal state of affairs of nature. In the case of a true proposition, corresponding to it is a state of affairs and in the latter a “thing about which”. In the case of a false proposition, the meaning *is*. The false proposition is still a proposition, but the state of affairs that it expresses “does not obtain”. And, moreover, “it also refers in a certain way to a state of affairs” that we still call its. The proposition “Human beings live on 150

¹¹ Compare Appendix A VI (Editor’s note).

¹² It is to be noted that in the rest of the exposition the problem of objectivity constituting itself in subjectivity is nowhere interpreted as if the genuine problem were in the reference to empirical and, say, human subjectivity.

the sun” is false. The state of affairs does not obtain in reality. But, the proposition posits it, although it does not obtain. The proposition (the meaning, the proposition thought) refers to this state of affairs, “thinks” it, although it is not, does not obtain. And, when someone
 5 judges, or without deciding to judge subjectively thinks a thought having the meaning that this proposition represents, then, precisely because this meaning is dwelling in his or her judgment, while judging or thinking this person is referring to the existing or not existing things, the obtaining or not obtaining states of affairs involved.

10 For thinking, for presenting, judging, assuming, doubting, asking, and so on, the things are only things as thought, as presented, judged, assumed things, etc. *And, they are things thought only in that the act of thinking has its meaning content. By means of the meaning content immanent to it, “thinking refers” to things not immanent to it, and*
 15 *if they in general are, to things being in and for themselves. And, if they are not, that is why they are not in thinking. They are still transcendent. They are at least thought, meant, posited, believed, etc., as something being in and for themselves. But, once again, how is all this to be understood?*

20 Let us assume that things (*Sachen*) exist in truth and reality. And, obviously, this assumption seems enough to us. It does not occur to us to state it. Things are in their own right. On the other hand, thinking gets a hold of them, thinks them, knows them, is certain of their existence, or presumes them, posits them as existing with the highest
 25 degree of probability. The most obvious situation in the world. *Is there anything more trivial than these facts?* Unfortunately, it is the fate of philosophy to have to find the biggest problems in the biggest trivialities. How does thinking in its various forms (the question is in the end the same for each one) get a hold of things, since they are
 30 surely things existing in their own right? How does it concur with the nature of the things in the form of justified knowledge? Things are surely what and how they are in their own right. Does knowledge capture them and haul <them> into subjectivity? Or does it picture things, carry an image into itself, faithfully reflecting the nature of
 35 things in the case of cogent knowledge?

But, as soon as we reflect more earnestly, we notice that a conception as naive as that, the first that was presented in the most ancient phases of Greek natural philosophy, will not do. Are the exact sciences 151

- like mathematics, physics, chemistry, etc., picture galleries of things (*Dinge*)? Is having a picture already tantamount to having knowledge? Are statements nothing more than verbal phenomena and pictures somehow linked, associated with one another, etc.? And, how is it with proper, factually cogent acts of thinking that find expression
- 5 <in> the form of indeterminately particular or universal statements, perhaps even mathematically formulated statements of laws? Is indeterminacy or universality to be accommodated in the picture theory? Even where it is a question of singular individual knowledge, the
- 10 picture theory plainly does not accomplish anything. In it, one envisages the thinking consciousness as in a box. Through some opening, a little picture by chance detaching itself from the thing makes its way in from the outside. And, then one believes an intelligible model of knowledge has been acquired. But, does, say, a box in which a true
- 15 to life photograph of a person is put *know* something about a person? *The being of a picture in the consciousness is surely not yet knowledge of an object outside of consciousness?* Therefore, the immanent content acting as a picture there must be linked to the knowledge that it precisely has to be considered to be a picture and that corresponding to it is an original. But, how does this knowledge reach us and what is this knowledge? Well, precisely, a subjective act again. The problem remains where it was. And, we see that a twofold distinction is to be made: the perceiving, presenting, etc., in virtue of which the consciousness phenomenon is phenomenon of something that is
- 25 not conscious; and the thinking that makes statements about what is appearing, about what is presented, on the basis of those intuitions.

- If we have something immanent to consciousness, for example, a color sensation immanent to it, and we have another color sensation, then it is possible to understand that an overriding consciousness of
- 30 comparableness establishes agreement. But, how is agreement between the immanent content called picture there and something transcendent to be understood? And, does not every thing (*Sache*), as something being for itself, *eo ipso* transcend the act of thinking? Is consciousness like an octopus stretching its tentacles out over things? But, we
- 35 have already conceded too much. In the case of two contents immanent 152 to consciousness, we can, of course, establish agreement. But, is this agreement the one under consideration in knowledge? Knowledge is said to be agreement of thinking with things: *adaequatio*, etc.

But, mere likeness comes to nothing. If red immanently agrees with red, the one red is not, however, for this reason a cognitive act and the other red a thing. Thinking thinks, refers to the thing. The one red does not refer to the other red. The latter is not what was referred to in the sensation of the former. If we look at the first red thing, then we are referring precisely to this red thing and not to the other. Though a good sense of the talk of *adaequatio* may underlie it, it is nonetheless not to be understood as likeness in such a simple way.

- I am talking about two levels, and the problem concerns both.
- 10 Accordingly, the problem first already concerns presentative and cognitive acts of the lowest level, “intuitive” acts, perceptions, presentations of the imagination and memory. In perception, the thing is supposedly given. It alleges to stand there before one’s very eyes. But what does that mean? The thing is for itself, the perception for me.
 - 15 The former is transcendent, the latter immanent. Similarly, memory claims to bring something past to mind. How can it do that? How does the past come into the consciousness of the present? The picture theory naturally breaks down here, as in every other case.

- And only then, the authentic, the conceptual, and the predicative
- 20 acts of thinking. Those in whose form all scientific knowledge runs its course. It does not just consist in mere words. How can words express? What gives them meaning? And, does not thinking pursue its immanent course proving, theorizing, lead from direct cognitions to ever more indirect ones, and finally the result stands there that is supposed to be valid for things. But, what does reality, which exists in
 - 25 itself, care about the activities of our thinking? How is one to understand the fact that if the subjective activities of our thinking proceed in accordance with logical laws, they finally concur, and even must concur with the nature of the things? We already saw that there is no
 - 30 doing anything with pictures there.

- One need not, however, think about actually existing things at all. A perception can be a respectable, whole perception, subjectively characterized just like any other perception, but it can be that the object does not exist at all, or that it indeed exists, but is not at all in
- 35 reality the way it appears there. According to the usual view, almost universally taught by natural scientists, not even a single, normal sensory perception is supposed to correspond to things existing in themselves. In sensory qualities as a whole, every one is supposed to

- be a merely subjective appearance. And so, we have countless intuitive and conceptual thought acts that are objectless. Objectless, insofar as the objects that are presented and thought there do not exist at all. And yet, not objectless insofar as a consciousness of an object is present in all of them. In hallucination, an object is present “before our eyes”; in false judgment, a mental state of affairs believed. In each case, the acts that we call thought acts, therefore, refer to things. It is part of the essence of the intellectual act to be consciousness of objectivity. But, how is that to be understood? And, how is one to understand the difference between acts whose intended objects exist in reality and acts in which objects are intended, but do not really exist? How is it in general to be understood that we speak of existing things?

<(e) The Problem of Evidenz>

- 15 *The trivial truism that things in themselves exist and we just appear on the scene and grasp them, have a look at them, make statements about them etc., turns into a mystery.* Knowing about things in themselves means having a subjective experience called “knowing”, and if the things are not something itself occurring at the same time in the human consciousness, like a feeling, a sensation, and so on, then all talk about knowledge seems fictional. No knowing can go beyond itself. It is just knowing, is consciousness, and not something that is not consciousness.¹³

- 25 But, we must, however, in some way attain clarity. Whether we are right or wrong in the naive view, we must, however, in some way cope with the fact that thinking and knowing allegedly exist and *that each one, in any form, justifiably or unjustifiably, bears in itself a reference to objectivity.* And, in some way, we must deal with the fact that

¹³ But, is not knowledge of something immanent to consciousness also problematical? On the one hand, that of the kind that ascertains “something immanent” that is not “self-given” in the act concerned, and then <on the other> that is the knowledge of something that is “self-given”? What characterizes it? Is nothing at all to be investigated there?

*every act owes this reference to its "meaning content". Thought act, thought meaning, thought object, how do they stand in relationship to one another? How are these distinctions to be fully understood?*¹⁴

- And, moreover, how is one to understand the difference between
- 5 *mere opinion and knowledge, blind and perspicacious, not evident and evident thinking?* We have on one side the *correlation of consciousness and object* that we obviously can by no means relinquish. We have on the other side the distinctions of value belonging to the consciousness, the distinction between correct and incorrect,
- 10 between proving it is right in itself and proving it is not right in itself, and these distinctions are intimately connected with that correlation. Where rightness is present, the reference to the objectivity existing for itself should be valid, i.e., not simply alleged. The object actually exists then, or actually exists in the way alleged. *The noetics of the*
- 15 *first, lower level* had worked out this latter distinction. It had inquired into the various mental acts, had demonstrated that for every species of such acts there exists a difference of correctness and incorrectness that can be experienced, expressed vaguely, a difference of *Evidenz* and, moreover, that *Evidenz* depended essentially on one condition
- 20 or another, for example, on one meaning form or another.

- But, the problems then just limp along behind. *What is Evidenz?* All the previously raised questions seem to press on towards this question. Supposing we have come to an understanding of that correlation of consciousness and object that concerns every, even dreaming,
- 25 ing, hallucinatory, erring consciousness, and then we ask how we can come by the existence of any object in itself at all, then we face the *problem of Evidenz*, or, what is the same thing, the *problem of givenness*. The question <is>: How do we know that any object at all exists in reality? And the question is: Where and when is an object truly
- 30 given to us, or how do we know that an object is given, and what does it mean for an object to be given to us? These questions, I say, are plainly most intimately connected. They are not solvable one without
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¹⁴And even if we are not used to distinguishing in the same way in the case of perceptions, memories, etc., is not every perception, for example, in itself also characterized by something in some way analogous to the thought meaning, a content immanent to it that makes up its objective reference? And, is this content not to be distinguished from the object as phenomenon as such and the real one?

the other. Indeed, in the end, they are answered or go unanswered one with the other.

Obviously, Evidenz is nothing but a word for the quality of givenness. One just has to take givenness in a comprehensive-enough way.

- 5 One must not limit oneself, as most often happens, to the being of individual real things. *Evidenz is a word for the fact that*, as noeticians affirm and prove, *there is a difference between acts that not only think that something is thus and thus, but are fully certain and aware, in the manner of perspicacious seeing, of this being and being*
- 10 *thus*. Therefore, the thing, the state of affairs is given in insight—direct and indirect insight—whether it is a question of a general or individual state of affairs. If the insight is a being-insight, then the state of affairs is itself seen in the most authentic sense. If the insight pertains to an act of assumption, then what is authentically given
- 15 and seen is not the state of affairs, but the probability of the state of affairs.

- Fine. Those would be the first noetic proofs. But what is “*insight*”? A subjective character trait of the act of being convinced? What reasonable right does a subjective quality have to play the indicator of
- 20 *veri et falsi*? A subjective quality is just a subjective quality. The thing, though, exists for itself. Of what use is an indicator to be to us? One is wont to make matters quite cozy here. One ponders and hypothesizes instead of really understanding and solving the problems. One reflects: Obviously (we all, of course, know this in our
- 25 epistemological naiveté), there are correct and incorrect judgments. Were there no subjective distinction, were there never any distinction anywhere, then any right to differentiate between correct and incorrect judgments would be wanting. Therefore, there must be a
- 30 distinguishing characteristic, a subjective criterion, an indicator, and that is Evidenz. 156

- In fact, in many cases, we have a *lumen naturale*. We make many a judgment with a certain light-filled certitude. That is the quality required. To the question as to what kind of quality that is, people answer, for example, along with Rickert and many others, that it is a
- 35 feeling, an attendant feeling of its own kind and, naturally, a pleasurable feeling, for knowledge is truly a delight. In our inner lives it has the function of lighting the way to the truth. A wonderful function indeed. We attach and we detach an indicator, a distinguishing mark.

- What if all of a sudden judgments like “all pentagons have 20 right angles” or “all numbers are even” and other preposterous judgments acquire this indicator? Would they then be truths? Would it then really be so? Feelings are usually perceived as something subjective
- 5 in a special sense. Namely, one person feels this way, another person differently. *De gustibus*.... What if their taste suddenly changed? Does one perchance want to say: This feeling, this miraculous indicator has the peculiarity of being unchangeable, of absolutely correctly indicating that all human beings necessarily have to agree about this?
- 10 But, what kind of silly talk is that in theory of knowledge? How do we know that this feeling indicates truth? How do we know about any truth outside and apart from Evidenz? How do we know that all human beings necessarily have to agree about this? Is all that any more than mere hypothesis? In any case, one thing is clear before-
- 15 hand: that the feeling and indicator theory of Evidenz is wholly meaningless and that *hiding there is the philosophical problem of making evidently clear what Evidenz is* and how it is to be intelligible that Evidenz is directly bound to the formal logical laws and, within the empirical, real-ontological sphere, is also bound to the principle
- 20 of probabilities and similar complementary principles. And, on the other hand, of understanding what it means, and rightly means, for states of affairs to be evidently given in conformity with their true being, or their probability. And, in these enlightening investigations, the question must finally be solved as to *how objective existence*
- 25 *can be conscious and known in subjectivity* (and even Evidenz is something subjective).

THEORY OF KNOWLEDGE AS FIRST PHILOSOPHY>

<§31. *The Position of Theory of Knowledge vis-à-vis the Logical Disciplines and Natural Sciences*>

5 <(a) Theory of Knowledge as Completion of the Theory of Science>

These are the unfathomable difficulties that attach to knowledge: as regards act character, as regards meaning, as regards objectivity. And, roughly speaking, they are the problems peculiar to the thorny field of *critique of knowledge* in the concise sense. Whether they are

10 separated off from formal logic, real logic, and noetic logic, which according to the foregoing represented the idea of a universal, pure logic for us, or combined with them into the unity of a single discipline <is> not in itself a matter of great significance. One thing, though, is clear: only the critique of knowledge completes the circle

15 of the disciplines essentially belonging to the idea of a theory of science. One can, therefore, justifiably understand the concept of logic so broadly that it embraces the critique of knowledge, that discipline ultimately elucidating the essence of theoretical reason, while, on the other hand, even the narrower concepts of logic that we separated

20 off are also well-justified: formal logic, which is at the same time formal ontology, real ontology, noetics as logical theory of norms, and finally critique of knowledge, theory of knowledge or theory of reason. Even the theory of the art of knowledge and science, owing to its practico-technical aims, naturally relates to all these disciplines,

25 provided it but sets its goal high enough, namely so high that it not merely guides us in delimiting and successfully cultivating sciences in the usual sense, but would assist us in the ultimate completion of scientific knowledge, therefore, as regards philosophy, in tending towards metaphysically conclusive knowledge.

30 Still needed now are additional reflections to characterize the position of the theory of knowledge vis-à-vis the logical disciplines indicated earlier, as well as metaphysics, and above all psychology, and in so doing to bring its essential characteristics clearly into relief.

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The theory of knowledge is the discipline that would help all scientific knowledge in the ultimate interpreting of its definitive knowledge content, all scientific knowledge in the final laying of foundations and final completion. *It relates, however, to all sciences through the medium of formal ontology, real ontology, and the logical theory of norms.* It primarily relates to these logical disciplines as lower levels and through them to all other scientific knowledge and disciplines. Above all, it is directly related to the formal mathesis and at the same time to the theories of noetics concerning it. For, we of course know that formal logic and noetic logic are most intimately connected. The former can certainly be worked on independently of the latter, but not the other way around. For, in the theory of justification exhibiting Evidenz, the formal conditions of the possibility of Evidenz must also be drawn upon and dealt with. It was really this fact that made the insight that a formal mathesis can be constituted independently of all normativo-noetic interests so troublesome. I said then that theory of knowledge was directly related to formal logic. That above all holds with regard to the theoretical foundations of this mathesis, regarding the basic concepts and basic principles.

20 <(b) The Necessity of an Epistemological Interpretation
 of Mathematics>¹

Mathematics as a discipline dealt with objectively lacks ultimate clarity in the foundations for many of the same reasons as natural science. It operates with imperfectly clarified basic concepts that are just not concepts of realities there. The degree to which they are univocal, sound, and well-defined, depends on technico-mathematical interests. Mathematicians, for example arithmeticians, have a certain clarity regarding the object field of arithmetic and its conceptual delimitation that is sufficient for the theoretical investigations to which they aspire. In a certain way, they know full well what they mean when they speak of number, and however much this concept may waver, it certainly does not do so in a way that the edifice of the theories of algebra,

¹ Compare Appendix A VII (Editor's note).

number theory, function theory, and so on suffers from it. As long as mathematicians are theorizing, they are in their true element, and if we follow them into it, we find our theoretical interests highly gratified. But, despite this Evidenz illuminating all mathematical theories and binding every rational being, owing to which the mathematics of all times has been considered a prototype of a most rigorous science with respect to its foundations and methods, it nevertheless leaves difficulties unresolved and problems open, which unless settled leave the value of mathematical attainments to a certain extent hanging in the air. These are, therefore, problems that do not fall within the framework of the theories themselves, difficulties that are not, for example, on the order of gaps in the theories. As soon as the axioms have been formulated and the process of differentiating, constructing concept formation and rigorous deduction has begun, everything is in good order, ever new results are obtained, ever new theories built up, ever new groups of problems formulated with exact definiteness and solved, and all this dealt with in the most rigorous sense. And yet something is still missing. It concerns the foundations and, as a further consequence, the principles of the systematic procedure.

That quasi-clarity in virtue of which mathematicians are certain of the meaning of their basic concepts, for example, the concept of number, is sufficient for setting up axioms and theories. It is not sufficient, however, for purposes of a definitive appraisal of mathematics as regards its epistemological attainments. As soon as we direct our interest toward the content and origin of the concept of number and <inquire> into the ultimate meaning of the objectivity that arithmetic commands epistemologically by means of it, we run into difficulties.

Immediately, to begin with, different concepts of number separate off. The concept of cardinal number, the concept of ordinal number, of magnitude, of linear magnitude, of formal number. Does arithmetic relate to them all and randomly so? Or, is one primitive, the others derived? If one takes one as the basic concept, how does one explain that arithmetic propositions are as a whole applicable to the others? It is not a matter there of differences in the kinds of numbers occurring in the theoretical structure of arithmetic under the heading of absolute number, positive, negative, imaginary number, and so on. These differences are not involved, because each of these concepts can be

interpreted in the sense of a cardinal number, or ordinal number, or linear magnitude, etc. The whole of arithmetic with all its technical concepts allows of different interpretations. If we ask mathematicians about this, they leave us in the lurch. Of course, they have noticed the
 5 problem. Even they at times really feel the need not merely to mathematize, but to obtain clarity about the meaning of their discipline.

In his famous lectures on the concept of number, Weierstrass began with the concept of cardinal number as the primitive concept of number, Kronecker, however, with the concept of ordinal number,
 10 and Helmholtz likewise. Other mathematicians, like Hankel, favored the concept of straight line. Still others favor "the axiomatic construction of arithmetic" and operate with the concept of formal number without, however, any clear information about this concept and its relationship to the other concepts of number having been given. As
 15 long as mathematicians are theorizing everything is compelling and unquestionable. But, as soon as they are to provide information about the actual objects of their theorizing, all unanimity and clarity cease. They all have their private opinions there, and these are most often in glaring opposition.

The lack of methodological clarity also shows in the much debated controversy over the meaning of imaginary numbers. If one keeps to mathematical theorizing, one will not doubt the soundness of the method of imaginary numbers. However, the particulars provided about the actual meaning and ultimate grounds of justification of
 25 such an apparently *au fond* meaningless operation vary and are in no respect completely fully adequate. Many long perceived difficulties, like those involving the concept of irrational numbers and continuity, have gradually lifted, but technico-mathematical interests also came into consideration there. In any case, people have certainly been able
 30 to operate with the irrational integers for centuries, at least within broad limits, without being able to determine their meaning.

That is of course a very odd situation. Mathematics is, therefore, not such an absolutely angelically pure scientific ideal, not even from a purely mathematical point of view. But, if it were ideally perfect in
 35 that respect too, the lack of epistemological foundations would still 161 persist. The clarity felt, the feeling of obviousness, the "I know full well what number means", and that such and such basic principles hold for numbers, and that by proceeding mathematically in such

and such a way, one arrives at certain results, are not enough. As long as we do not have the most rigorous discrimination of the basic concepts in question and ultimate clarity for each <as concerns its> meaning, and in return, as long as we do not have ultimate clarity about the meaning and significance of mathematics, we do not know what mathematics accomplishes and in what sense claims for it can ultimately be made.

There, Mill, for example, says that cardinal numbers express a physical fact, number laws are natural laws in the same sense as any laws of physics. That view is of course absurd and is easily refuted. Yet others say that cardinal numbers are simply expressions for forms of perceiving thoughts, number laws systems of laws belonging to the essence of thinking. And again, some say that as laws for forms of thinking, they are basically psychological laws, laws expressing the special nature of human thinking, of human colligation, and counting, while others believe they can assign these laws an absolute, ideal meaning, valid for all possible thinking in general, and conjointly and correlatively, for every possible being in general. You understand that it is unrealistic to come to a final decision here.

Mathematics is the great tool of knowledge of nature. By what right, though, is it applied to knowing reality if numbers are simply to be forms of thinking, number laws are simply laws of thinking? How is it that what we have arithmetized in our thinking tallies with actual reality, nature existing in itself. What does nature care about our colligating and counting? If arithmetic belongs *a priori* to the thinking mind, how is the right to apply it to what is *a posteriori* in nature to be understood?

<(c) Mathematical and Philosophical Logic>

The need for investigations that target problems of the kind indicated has already been felt for a long time. They are dealt with under the heading of *philosophy of mathematics* or *theory of mathematical knowledge*. But, formal logic in the old sense, or formal mathesis, which is concerned with concepts and propositions or objects and states of affairs in formal universality, calls for epistemological foundations and interpretation. And, this epistemological work is of even

- deeper underlying significance than that of arithmetic, inasmuch as the apophantic field by nature really deals with a deeper, more fundamental layer of knowledge than that of arithmetic and of the remaining, therefore, higher mathematical disciplines. The basic forms and principles belonging to predication as such must first of all be elucidated. They concern the formal possibility of every individual statement, and they are principles of any deductive procedure grounding in the essence of predication as such. As they embrace every field, so they also embrace every formal-mathematical field.
- Now, it is, however, to be noted that apophantic logic can also be constructed as a mathematical discipline, purely objectively and without definitive clarity about principles. Modern “mathematizing logic” accomplishes splendid things with respect to the construction of theories. But, what its champions are wont to say about the cognitive value and meaning of the basic concepts and basic principles is total nonsense. In consideration of this, in philosophical quarters, people have objected vehemently to the mathematization of old formal logic and declared the new mathematical discipline developed since Boole itself to be nonsense. But, there the lack of understanding is on the part of the philosophers. Critical excesses of the kind that we find in the most deserving of men, I shall name only Lotze and Windelband, would not have been possible if they had had a deeper understanding of the essence of mathematical method at their disposal.
- Any development of a deductive theory and discipline aiming beyond the primitive beginnings requires the specifically mathematical method, namely the symbolico-calculational method. The skillful handling of it, its suitability for the different areas of deduction, the actual setting forth and constructive invention of the mathematical theories governing these areas are matters of mathematical talent and continuous mathematical training. Therefore, this field must everywhere be left to mathematicians. This consequently also holds for formal logic.
- The nature of the matter requires a necessary division of labor here. We shall always have to distinguish between *mathematical* and *philosophical* logic or, the *logic of mathematicians* and the *logic of philosophers*. Mathematicians are, as I sought to demonstrate in my *Logical Investigations*, technicians of deductive theory. For philosophers,

on the other hand, it is a matter of critical substantiation and definitive interpretation. Each requires essentially different inner dispositions. Someone can be a splendid mathematician and completely incapable of even just understanding the issues and method of epistemological inquiry, much less mastering it—and, on the other hand, someone can be a splendid philosopher, but completely unqualified to invent and further develop the specifically mathematical method. Mathematicians are, as I showed, not pure theoreticians, not champions of theoretical interests in the ultimate, definitive sense. Rather, they are only ingenious technicians, analogous to design engineers, who objectively and unreflectingly become engrossed in the various formal systems, construct the attendant theories as technical undertakings.

Just as practicing mechanics construct machines without having to possess any ultimate insight into nature and its laws for that, so mathematicians construct theories for products, states of affairs, numbers, quantities, manifolds, without ultimate insight into the essence of theory in general and the essence of the concepts and laws intrinsic to it²—though, it is precisely with them that they constantly have to deal. They do not need ultimate clarity about the meaning, limits, and sources of the objective validity of what is mathematical. They are oriented towards the mathematical as a preestablished objective. They do not inquire reflectively into the subjective sources and ultimate questions about the meaning and possibility of an objectivity constituting itself subjectively.³

Doing that is the philosopher's job. <No> mathematical technique is needed to answer them and is useful for that. No ability, however well-trained, to differentiate, integrate, do logarithms, and whatever else there may be, can help them in any way to do what is to be achieved philosophically there. On no path of mathematical deduction and construction lies what they seek, namely clarity about the sense and objective validity of the principles making deduction and construction in general rational and possible.

² Prolegomena <p. 253> <Husserliana XVIII, p. 255>.

³ Subjectively equals consciously.

<(d) Natural Science and Philosophy>⁴

Naturally, this discussion concerns the entire formal mathesis. If it is treated purely objectively in a natural turning to the things (*Sachen*), then it is mathematics and falls within the domain of mathematical scholars, precisely as natural science as an objective science of nature falls within the domain of natural scientists. The procedure is epistemologically naive there. One just looks at the facts, takes them as given, and asks what is legitimately to be said about them. *One dwells in Evidenz, but does not reflect about Evidenz*. One finds the facts, one has given them, but one does not reflect and explore in reflection what givenness means and how such a thing is possible.

In experience, things are given. In counting, combination, and so on, numbers are given, combinations given. In the naive line of thinking, which is the line of thinking of the sciences in the ordinary, natural sense, one sets to work with a view to this givenness in the scientific field concerned: What is valid for such objects? What are their properties? What laws are they subject to? One sets to work, one deduces and derives the forms of concepts and propositions, one experiences Evidenz in each step, one induces and experiences the preference for probability, etc. One thinks, knows, and works scientifically without investigating the principles upon which meaning, legitimacy, the source of truly objective validity ultimately everywhere hinge.

Philosophy then builds itself above all *natural* sciences. It follows a thoroughly *unnatural course of thinking*, inasmuch as it does not take anything as preestablished. No objects, no field that is to be investigated, but also no obviousness of method, of thought form, of thought subjectivity, of relationship to objectivity, of Evidenz, etc. In jest, and yet tellingly, one might therefore call philosophy the unnatural or supranatural science.

It is in any case important for this relationship to be made clear and to recognize that it is only destructive for philosophy to burden itself with theories belonging in the sphere of natural sciences. This segregation is the result of philosophy's whole historical development.

⁴ Compare Appendix A VIII (Editor's note).

- Though philosophy was originally science in general, the epistemological scruples and doubts that are genuinely philosophical from a theoretical point of view already arise very early. They arise in connection with natural scientific speculation. Dissociation was not yet necessary, since this had <not> brought the natural sciences, with the exception of Euclidean geometry, to an independent, fruitful methodology that on the strength of that fruitfulness was not to be seriously shaken by any epistemological doubt. As soon as that was the case in any realm of knowledge, and a richer, unitarily more coherent and systematically more well-secured store of rigorous theories then stood out, a specialized natural science broke away and became independent. So it went with the different natural sciences, of late with psychology, and finally also with syllogistics, which represented one last remnant of natural theory still remaining for philosophers.

- Only after breaking away from all natural theories does the philosophical task stand out in its purity.* It becomes clear that philosophy, or rather “First Philosophy” in the genuine sense, is related in the same way to all fields of knowledge and all natural theories and sciences to be established in them. *It is the science of principles, namely the science of ultimate elucidation, of ultimate justification and bestowal of meaning, therefore, of ultimate clearing up, all that understood in the sense of universality on grounds of principle.* It does not in any way reach inside, and yet its “critique”, its clarification of meaning, concerns each and every thing, because it concerns all foundations in principle, all systematic steps, all thought acts claiming legitimacy regarding the essence of their attainments.

- First Philosophy* or, what is the same, the critique of theoretical reason, “theory of knowledge”, does not individually test the basic concepts, basic propositions, theories occurring in actual sciences, and *in concreto*, so to speak, step by step, perform the necessary elucidation and fixing of meaning on them that ultimately clears matters up. But, in exhaustive universality, it supplies everything that makes accomplishing this possible at any time. And, it obtains this exhaustive universality on the basis of a complete exposition and epistemological clarification of all “thought forms”, therefore, of all formal categories and formal axioms developing into mathematical theories in the natural mathematical disciplines, as well

as on the basis of the corresponding complete clarification of the metaphysical forms, i.e., of the real categories, that underlie all natural perception and natural determination. And, finally, on the basis of the clarification of the noetic categories as a whole, if we wish to acquiesce to this expression and which is understandable without further ado.

Everything needed for clarification on grounds of principle in the natural sciences falls within the scope of categories and categorical laws, which in the lower logical disciplines are determined and developed into systematic theories insofar as they are open to theorization of that kind. If, therefore, the highest logic, the critique of knowledge, engages in their clarification, ultimate bestowal of meaning, and illumination, then everything necessary is prepared for the corresponding epistemological clarification of the natural sciences, and with that this clarification is then implicitly done. *So, it is, therefore, confirmed that the ultimate interpretation of the natural sciences proceeds by way of the interpretation of the logical disciplines, namely as concerns their categories and principles.*

<§32. *The Problem of the Relationship Between Theory of Knowledge and Psychology*>

<(a) Knowledge as a Subjective Matter>

At the close of the last lecture, I already began to say some things about the methodology of epistemological inquiry. I first spoke about certain preliminary analyses that still occur within the sphere of naturalness. The thoughts that come up in this regard will leave more of an impression if I immediately link them to the *big problem of the relationship between psychology and critique of knowledge* and turn to ulterior considerations beforehand. I remind you of the model for determining scientific tasks that we made for ourselves and that has now taken on new interpretations.

We said: In the sciences we can discern different contexts. If we disregard science as a cultural phenomenon belonging within the context of human culture, and do the same with what is empiricogrammatical, then we have to distinguish between:

1. The *context of propositions* combining together in distinctive ways in explanatory theories. *Pure grammar and formal mathesis* relate to propositions in general.

2. The *context of the objectivity* about which the propositions make true statements. In particular, this context is different in every science. It is the theoretically investigated scientific field. *Formal ontology* (which coincides equivalently with the formal mathesis) and *real ontology* relate in universality on grounds of principle to objectivity.

3. *Meanings, propositions* are at times contents of position-taking acts. More universally and completely vaguely <we> just said earlier that science may have a subjective side. It is realized in investigating, comprehending thinking, perceiving, judging, supposing, etc. And, we said that these subjective acts belong within the context of psychology, to be more precise, *psychology of knowledge*.

Meanwhile, we had reason to say that subjectivity has special significance for the understanding of science as a unit of validity proving to be legitimate. All substantiation and refutation, all normative differentiating of knowledge in the concise sense, of mere opinion, and of false conviction, is carried out in the realm of subjectivity. *Thinking in the concise sense of scientifically knowing, inducing, and deducing has systematic unity*. Acts that have the grounds of their justification in themselves are the grounds for the substantiation of new acts, and these acts for yet newer ones, and so consistent systems emerge having a certain normalcy that are to be implemented constantly illuminated by Evidenz, or in the manner of Evidenz. *Noetics as theory of justification of knowledge* had reference to the principles of this normality, to its meaning, and the differences peculiar to it, in contrast to what is abnormal or unjustifiable. Added later on was *critique of knowledge*, which likewise involved subjectivity, and especially justification proving subjectivity, and had reference to the interrelationship and connections between meaning, object, and knowledge, therefore, to formal logic, real ontology, and noetics in the same manner.

Now, the question arises as to how *noetics* (we may equally say noetics in the broader and higher sense of *theory of knowledge*) is related to *psychology*? If we stand with it in the psychology of

knowledge, is *psychology*, therefore, in the final analysis *the fundamental philosophical science*?

- We had already indicated earlier that the systems of substantiation occurring in the sciences and belonging to its objective holdings
 5 dispense with any essential reference to any specific, individual subjectivity, for example, when it is said that on the basis of these observations or others, and according to present knowledge, one thing or another is probable. Here, a reference to the present generation of scholars, their observations and knowledge is certainly
 10 made, *but the substantiating context can rise to a universality free of empirical individuality*. If, in general, knowledge of this or that kind obtains, and otherwise no knowledge pertaining to the same subject, then an assumption of correlative content is probable to one degree or another. In this way, principles pertain to all subjective substantiation that are free of reference to any specific subjectivity, to human
 15 beings, to their relationships to time, to their incidental frames of mind and cognitive acts.

- Nevertheless, one will be able to say to begin with that even though specific individuals and their mental and psycho-physical
 20 relations are excluded by going back to principles, yet a relationship to subjectivity in general must, however, necessarily survive. Judgments of such and such a form ground the legitimacy of judgments of correlative form. If one knows this thing and that, then one thereafter has a right to assume this thing and that. "One" has a right.
 25 Knowledge is universally thought of as knowledge of any person whatever, the same for supposing, questioning, etc. *Why should principles referring to subjectivity in general, to judgments in general, to suppositions in general, and so on, be denied to psychology?* On the contrary, is it not psychology's business as a science to advance
 30 universal knowledge, and the most universal knowledge possible, about mental phenomena?

- The method that the solving of epistemological problems seemed to require also seems to attest to its being a matter of psychological investigations. According to our earlier explanations, these problems
 35 lie *in the relationship between ideality and objectivity, on the one side, and subjectivity on the other side*. Knowledge is a subjective matter. It is realized in the knowing subject, in various kinds of intellectual acts, in perceptions, memories, expectations, in judgments, in

- suppositions, doubts, insights, arguments, etc.⁵ These subjective, temporally determined, changing, fleeting acts must have a *supratemporal meaning content*. Propositions, proofs, theories must not be contents, moments of subjective acts of judging, proving, and so on, in the real (*reelen*) sense. And, by having an ideal meaning content of this kind, the acts must relate to objects: objects, their properties and relations must be thought in thinking, be known in perspicacious knowing. And, yet, one is talking of objects. They are what they are, whether they are thought, whether they are seen, whether they are perspicaciously supposed and expected or not.

<(b) The Requirement of Ultimate Reflective Clarity

About the Relationship of Ideality and Objectivity to Subjectivity> 170

- How are we to tackle such problems? Naturally, philosophizing and debating from on high and from the outside cannot lead us to the goal here. In other words, the problems will not budge as long as we are satisfied with the natural and generally very vague concepts in which we think about meaning and object categories, on the one side, and noetic categories, on the other. The work of logicians has already left a certain imprint on these categories, really even before this in the individual natural sciences that really often enough find reasons to resort in general ways to meaning, object, position-taking acts, and to name the main types of them, like proposition, truth, inference, perceptions, judgment, Evidenz, probability, etc. In choosing them for their special field, logicians obviously segregate more rigorously and give more. But, as long as they are not epistemologists, as long as they, for example, only work on formal mathesis or probability theory, or exhibit position-taking acts and differences of Evidenz in externally morphological ways, the ultimate fixing of meaning and meaning elucidation that the solving of the designated problems calls for is wanting.

⁵Must one not say: Knowledge is a subjective matter, it is a matter of thinking, of judging, and if they are to be knowledge, judgments must be built upon various other acts, perceptions, etc., inherently consistent with them? Judgments and possible components of judgments, etc., however, have meaning content to begin with (if we take meaning in the concise sense).

What kind of elucidation and ultimate fixing of meaning is this? It appears to disintegrate entirely in psychological analyses. Formal logicians can proceed in a very rough way with respect to the fixing of the meaning of their basic concepts. It is enough for them to have the concepts that they need, for them to see and master the distinctions that come into consideration for the utilization of mathematico-deductive theories. And the same is the case in the other remaining logical spheres.

- We have heard that the unambiguousness and soundness of the concepts that mathematical theory presupposes need not be actual unambiguousness and soundness. On the contrary, the same mathematics, the same arithmetic, along with all the higher disciplines, can be interpreted in the sense of different number types.⁶ And, whether number is looked upon as a mental matter, as a fortuitous product of human mental makeup, or as anything else, is just quite irrelevant for the theorization of arithmetic. We have also drawn attention to the fact that the building of an exact deductive theory can allow equivalent concepts to be considered to be identical to a considerable (not to be defined more precisely here) extent. Equivalent concepts are concepts differing in sense, but which are substituted for one another *salve veritate*. Hence, in deduction, they act as the same concepts. Also to be taken into consideration is the possibility that the basic concepts of thinking theoreticians may be falsely interpreted, and that that need not, however, be harmful, if instinct and know-how in actually implementing the theory allow the right interpretation to come into play, or if in actually implementing the theory the dangerous obstacles that the false interpretation brings with it are circumvented by dint of that instinct. Mathematizing logic provides proof of all that. Thus, for example, when Schröder, who deserved well of the mathematization of syllogistics, imputed to the universal categorical

⁶But, the higher development of mathematics as a science would already require everything to be neatly segregated here. We have to contrast and keep apart: (1) natural science as it actually is; (2) natural science fully substantiated and constructed throughout, logicized science. Epistemo-metaphysical illumination genuinely requires the second, and for this reason philosophers will engage in a critique in meaning and be obliged to add supplements leading from (1) to (2), namely, from the perspective of theoretical foundations. Compare also 143 ff (comp. p. 196ff below).

proposition this meaning: The class of *As* is included in the class of *Bs*. And, even to the hypothetical proposition “if *U* holds, *V* holds”: The class of time segments <in which *U* holds is included in the class of time segments, in which *V* holds>.

- 5 *What suffices in the natural procedures of formal logic regarding the sound fixing and meaning bestowal of the logical categories obviously does not suffice for epistemological ends.*⁷ We really need ultimate understanding. If we want to attain clarity about how act, meaning content, objectivity, figure in relation to one another, and
- 10 not simply in a completely general way, but in terms of all particular features and forms, and if by means of this we want to have a thorough understanding of what knowledge and science ultimately achieve and, correlatively, what nature, what real and ideal objectivity ultimately are, then all naiveness, all merely instinctive certitude and
- 15 quasi clarity, all trusting in instinct and know-how must be rejected. It is indeed also to be anticipated that all the abysmal difficulties that 172 appear nearly unfathomable to us upon first reflection and bring us to the brink of theoretical despair stem from the fact that, in the first place, with their confusion and vagueness, the natural concepts and
- 20 naturally implemented axioms serving as the principles of our procedure run together in ambiguous ways and that, in the second place, even if they were unambiguous, naively implementing them would not suffice and that, upon reflective examination, they must, on the contrary, also manifest their true reference to us⁸ and in a way that
- 25 imposes nothing of our natural prejudices, muddled preconceptions and later muddies them by false interpretations.

- Philosophical reflection inquires into the relationship of ideality and objectivity to “subjectivity”, to consciousness. It asks, for example, how propositions stand in relation to judgments, objectivity to judgments,
- 30 how a universal proposition stands in relation to the corresponding act of universal judging, and how it refers to an objectivity. How can Evidenz universally see something as object in general? Well, here we just must thoroughly understand what is being referred to there under the heading of proposition, universal proposition, judgment,

⁷The above distinction is, therefore, to be made there.

⁸What does true reference mean? Example! Reflective examination indeed aims at the relationship of objectivity (ideal and real) to consciousness.

universal judging, Evidenz, and so on. What is in practice sufficient for a syllogistic technique and theory there is not sufficient for us.

- To gauge the full scope of the problems, we have to have separated all categorial differences of meaning and object forms, all
 5 essentially different categories of position-taking acts and types of Evidenz most rigorously. We may not allow ourselves to be deceived by any kind of equivalence, by any kind of essentially substantiated identity of objects. That, as regards their essence, different acts refer to the same objectivity, indeed perhaps even refer with the identi-
 10 cally same sense, or that two proposition forms can in truth stand for one another, nothing like that may ever induce us to identify acts or meanings, but we must precisely be careful <about this> and make ourselves clearly aware that this act and that one are different but in a relationship so unique as to entice one to identify them, that this
 15 meaning form and that one are different, but equivalent as regards validity. *What will the definitively elucidating procedure of theory of knowledge therefore consist in?* 173

- The study of acts that include meanings in themselves and refer to objects, and of the different forms in which these relations of
 20 immanence obtain alone can help us. We must see, behold, what actually lies before us there, just how consciousness looks, if it refers, whether a piece, a trait is present that can be called meaning or object there, and if not, what is explained by the fact that it is, nonetheless, a question of such immanence on intuitively justifiable
 25 grounds, what, for example, is to be found when several different acts have the same meaning, or several different acts do not have the same meaning, and yet are directed to the same objects. The entire investigation, therefore, goes on within the sphere of subjectivity, within the sphere of evidencing intuition, of intuitive consciousness.
 30 We clarify mathematical and ontological concepts by going back to subjectivity. We ask what they genuinely refer to. They do not refer to anything mental. Yet, we only obtain the answer in Evidenz and intuitiveness, where the concept has reference to the corresponding intuition and visibly fulfills what it is referring to in it.⁹ Noetic

⁹The problem of constitution is already involved there. Clarification as Evidenz and clarification as investigation of the “origins” are not the same thing.

concepts are themselves concepts of mental occurrences, of judgments, suppositions, etc. There, we consequently look at the mental itself, and if we then want to investigate the reciprocal relationships and the possibility of an objectivity coming to consciousness in subjectivity, the possibility of the validity of objective laws and theories, and so on, then we naturally stand all the more within this sphere of subjective investigations. How do presentations stand in relationship to objects, what does it mean for an object to be given to us in perception, etc.? Therefore, everything is absolutely psychology.

This first rough approximation of the method to be followed in solving epistemological problems is reminiscent of an old, very popular characterization of theory of knowledge as the science of the essence and origin of knowledge. The belief was that the essence of knowledge was to be laid hold of at its origins, and in the usual interpretation seeming obvious in the beginning, the origin itself refers to the psychological origin. However, in direct opposition to this interpretation, in spite of everything said, and within proper bounds, I also plan to take a stand to be adhered to. *We must not succumb to the certainly very great temptation to mix theory of knowledge and psychology.* And, we basically cannot do this either once we have worked out the problems themselves in a much more rigorous, radical form than traditional philosophy did. And, just as little can we feel a serious temptation to mix theory of knowledge with metaphysics and intend to solve its problems, as is also traditional, by appealing to metaphysical underpinnings.

<(c) The Problem of the Possibility of a Non-psychological Theory of Knowledge>

The big problem of the relationships between theory of knowledge and psychology began to occupy us in the last lecture. It is, one can say, *the most important problem* standing at the gateway to the theory of knowledge. The stand one takes towards it is decisive for the sort of theory of knowledge one pursues. Namely, it is decisive for the epistemological method and thereby for attaining or failing to attain the goals that theory of knowledge sets for itself. And, since all of

philosophy depends on the theory of knowledge, you can then amply measure the theoretical significance of this problem.

- The first reflections we engaged in seemed to require basing theory of knowledge on psychology. Generally speaking, the problems were: how the ideality of the meaning unit and how the being in itself of the meant and allegedly known objectivity manifest themselves in the subjectivity of cognitive acts, acts of presenting, judging, supposing, etc.; how the attainment of knowledge is to be understood; correlatively to that, what the being for itself of known objectivity means and truth's being valid in itself. These problems relate to all kinds and forms of cognitive acts, of meanings, and objectivities, and they relate to all the so-called principles to which cognizing thinking is to be subject from the ontological and noetic standpoint. Subjectivity is already involved everywhere in the posing of the problem. How was psychology not to be a basis of theory of knowledge? 175

- The first rough approximation of the method by which problems of this kind are to be solved indeed also appeared to confirm this. It is not without good reason that tradition calls the theory of knowledge the science of the essence and origin of knowledge. How were we to proceed other than psychologically, if we wanted to make intelligible what it means for, say, any formal prototype of propositions, which are ideal units, to function as judgment content and to determine the directing of the judgment toward the objectivity? How were we to proceed other than by envisioning in concrete inner intuition a judgment in which such a proposition is the content referred to? And, if we wanted to make clear how, say, an individual object in general, could be given in consciousness itself, how were we to proceed other than by envisioning a perception of some individual object and delving into its meaning, since perception is the act claiming to make the object directly present to us? Not only is the investigation, like every investigation, carried out in subjectivity, but in investigating we look toward subjectivity. In what is subjective and its particular nature determined in such and such a way, we look for what presence of the object or, on the other hand, the immanent meaning content, signifies in that. Many will even conclude here: No one can come out of his or her subjectivity, therefore, the investigation can only be carried on in

subjectivity, therefore, it must be a psychological investigation. We prefer, though, to be cautious. For, that holds for any kind of science. When physical scientists observe nature, perform experiments with things, and on the basis of that acquire knowledge about nature, they
 5 do not come out of their subjectivity. Therefore, according to that argument, every physical investigation would *eo ipso* be psychological, surely a dubious conclusion. This dubious conclusion, concerning which we do not wish to take a stand, in any case, calls attention to the fact that there is every reason to be cautious here and to beware
 10 of the slippery ground.

But, how can anything ever be wrested from the fact that in epistemological investigations we go back to subjectivity, that as psychology always does, we make the subjective into the object under consideration, and that we must do that, since the problems
 15 relate precisely to subjectivity? Namely, how could subjectivity grasp objectivity and ideality? 176

And yet, in defiance of all the foregone conclusions, I plan to brand such an interpretation of the theory of knowledge and its method (which makes it dependent upon psychology) as a fundamentally
 20 erroneous form of psychologism. Here, we stand at the parting of the ways. *The specifically epistemological sin, the sin against the Holy Ghost of philosophy*, and unfortunately also the original sin that human beings awakened from the state of epistemological innocence necessarily lapse into, *is the mixing up of consciousness and mind, of*
 25 *theory of knowledge and psychology*. Strictly speaking, the temptation is not at all so very great for us who have not accepted the epistemological problems in their historically muddled state, but have worked them out for ourselves in connection with the elucidation of the idea of a pure theory of science in a completely different and incomparably
 30 more rigorous manner. This holds, as I want immediately to add, both for this temptation and a second one that has again and again underlain the historical theory of knowledge, namely that of grounding the *theory of knowledge upon metaphysics* and of wanting to solve the radical problems of the elucidation of knowledge by
 35 metaphysical underpinnings.

This is really completely obvious according to all our reflections up to this point: *Theory of knowledge is prior to all natural knowledge*

- and science and is on an entirely different plane*¹⁰ *than natural science*. If knowledge and science in general become problematical, namely, as concerns the possibility and meaning of their objective validity and attainments, if we, therefore, do not understand science
- 5 in general, how could we make use of any pre-established natural science in order to acquire this understanding? And, all science is 177 natural as long as we lack this understanding. As long as we are in the state of epistemological innocence and have not eaten of the fateful apple of the tree of philosophical knowledge, namely the critical
- 10 raising of problems, then every science suits us fine. We can delight in every one. Every one satisfies us by the Evidenz immanent to it. We can make use of the solid, well-founded results of any one of them for any other, insofar as any theoretical connections obtain. The moment that critical doubt assails us, that the sphinx of critique
- 15 of knowledge asks its questions, all sciences, no matter how beautiful, are nothing to us. They can offer us nothing that we lack. All the puzzling questions combined signify that *we do not understand sciences in general*. Implied in this is that we understand none of their achievements to be characterized in one way or another. And, that in
- 20 a radical universality. So, the worm of doubt or unclarity is hiding in all definite knowledge.¹¹ No naturally obtained scientific result is free of it. Therefore, we cannot use any as a premise out of which to derive what we are looking for: the answer to these questions.

¹⁰On an entirely different plane: It is a false metabasis when we wish to derive results for critique of knowledge from natural science. The thought that I am pursuing further, however, is different, as if the indubitability lacking in natural knowledge came into question. But, though, for example, mathematics, say arithmetical axioms may be absolutely evident, can something be deduced from them as major terms for the critique of knowledge, be in general logically derived from them? The meaning of the propositions of critique of knowledge is different from the meaning of naturally logical propositions. States of affairs of the critique of knowledge <are> different from the states of affairs of nature, etc. This is to be thought over carefully and deeply. However, what has been expounded also has its justification. If I am confused, then I actually have no right to make use of what is set down there as valid, especially if I specifically wish to clear up this confusion.

¹¹Of course, this doubt arises immediately: Then, there cannot be any critique of knowledge either. How is it to begin? Every beginning is a cognitive step and if it is not questionable, subject to the same doubt?

It is, therefore, established from the start that bringing premises from psychology, that preestablished natural science, in order to derive epistemological results from it means radically missing the meaning of the genuine epistemological problems. And the same holds for metaphysics. Here, we would simply have to say that metaphysics presupposes theory of knowledge (if there can be such a thing). Therefore, it cannot undergird theory of knowledge. The most radical reason why the natural sciences do not provide any definitive knowledge of physical and mental reality, and consequently require a metaphysics as the science of absolute being is really that the possibility and meaning of the objective validity of knowledge in general is a mystery to us. If this is the case, then the ultimate meaning of any reality, which for knowledge is only what it posits as real and has determined in such and such a way, is also problematical for us. In spite of all of natural science, we therefore do not know what reality is and in what sense we may claim to take the results of the natural sciences as being definitive for reality. Therefore, only by theory of knowledge and critique of knowledge practiced upon the natural sciences is metaphysics possible. Nota bene, metaphysics and not fantasy.

All that would, therefore, be ensured from the start. But, we cannot rest content what has been said. Metaphysics, of course, will not present any problems for us in our preparation, but psychology surely will. A painful dilemma besets us. *Theory of knowledge with psychology and on the basis of psychology does not work.* It conflicts with the meaning of theory of knowledge. *Theory of knowledge without psychology does not work either.* It is definitely, as the word already signifies, a certain scientific investigation of knowledge. The term knowledge, however, concerns mental activities. In investigating what is mental, we are *eo ipso* practicing psychology. *Are we to draw the conclusion that there cannot, in general, be any theory of knowledge?* Are the problems unsolvable on grounds of principle? That would, however, be a difficult assumption. The various natural sciences are there before our eyes. They claim to concern existents. In virtue of their form, they are subject to logical laws. But, are the questions to be unanswerable as to what it may mean, what it clearly and free of all tortuous confusion may signify, to say that *knowledge concerns an objectivity*, has a meaning, is subject to formal laws in virtue of

- its meaning form, and so on? Even unanswerable on grounds of principle? One should, however, bear in mind that questions rationally asked are open to rational deliberation and rational answering. We want, therefore, not to be hasty about disposing of the possibility of theory of knowledge, at any rate to reflect more carefully.

<§33. *Epistemological Skepticism*>

- Theory of knowledge has the naiveness of natural science in its sights. As soon as its problems are formulated and their full significance grasped, we feel shifted into the standpoint of a unique kind of skepticism.*
- 10 Adopting it and holding fast to it is the *primary, inflexible requirement of theory of knowledge*. This skepticism is no less radical than any skepticism, however extreme. It is aimed at all preestablished knowledge and science in general. But, it has an entirely different meaning from any skepticism of the historical tradition. The meaning
- 15 of this epistemological skepticism has already been indicated above. We now want to characterize it more precisely in contrast to historical skepticism in order to connect up with the requisite clarifications of the possibility of a theory of knowledge and of the essence of epistemological methods.

- 20 <(a) Dogmatic Skepticism as Expression of Lack of Clarity About the Meaning and Possibility of Objective Science>¹²

- With the establishing of epistemological problems, authentic philosophy begins. Crossing the threshold into theory of knowledge and treading its ground, the ground of that skepticism, we are, therefore, beginners in true philosophy. And, there, a splendid saying of
- 25 Herbart strikes us: Every able beginner in philosophy, Herbart says, is a skeptic. But, every skeptic as such is also a beginner. Those who have not been skeptics at some time in their lives have never felt that acute shaking of all the ideas and opinions familiar from early on

¹² Compare Appendix A VIII (Editor's note).

that alone induces them to distinguish what is incidental from what is necessary, what accrues to thought from what is given. However, the thoughts of those who persevere in skepticism have not matured.

5 This exquisite saying aims, so to speak, at the pedagogical import of skepticism. It concerns its significance in educating people to think philosophically. By means of this skepticism, individual reason frees itself of all bonds imposed upon it by the entanglements of historical and personal life and fights its way to the awareness of autonomy. This awareness is the precondition of all philosophizing.

10 For us, however, a skepticism of a different kind, and at any rate 180 having a different function, a more radical skepticism by far, is possible. *Epistemological skepticism* causes the most thoroughgoing shaking of all opinions and knowledge of all. It strikes thinking at its roots. It does not fasten on to the individual opinions and convictions of empirical subjects, nor does it fasten on to the totality of convictions in
15 which those subjects had earlier placed confidence. Rather, it concerns the *universal possibility of knowledge in general in principle*. It concerns all sources of knowledge from which the sciences and all their theories one after the other derive their claim to validity, their
20 objective cogency.

Epistemological skepticism can be *dogmatic and critical skepticism*. Historical skepticism was dogmatic. That means that in all its forms it was a theory, a theory of knowledge to be more precise, that with arguments and proofs sought to demonstrate the impos-
25 sibility of knowledge, whether of knowledge in general, or of the impossibility of any of the main types of knowledge. We see the teleological function of this dogmatic skepticism in the history of philosophy, however, as preparing the way for critical skepticism, i. e., the skepticism that constitutes the necessary starting point of theory of
30 knowledge and fixes its foundations in a lasting way. In all dogmatic skepticism, critical skepticism is an implied phase,¹³ but not one clarifying itself to the point of purity. *In contrast to dogmatic skepticism, critical skepticism is not a theory, but position-taking and a method.*

Dogmatic skepticism set in immediately after the development of
35 the first stages of Greek philosophy and science. The pronounced

¹³That is saying too much.

reciprocal conflict between those early attempts to theorize about reality, the apparent stringency of their argumentation, by means of which, nonetheless, different philosophers proved diametrically opposed theses, finally the pronounced conflict of the content of these theories with the testimony of natural human understanding, were the first reasons for epistemological reflection. Inquiry saw itself compelled to retrace its steps from the things (*Sachen*) to the forms and methods of knowledge and the sources from which knowledge derives its title to validity. The predicament in which human reason thereby landed fostered the awakening of a skepticism that in light of this conflict inferred the impossibility of objective truth and objectively valid knowledge. In the beginning, this was serious doubt about the attainability of the aims that the nascent science was setting for itself. With the Greek propensity for extremes, this immediately became radical doubt about the possibility of science in general. In those days, sciences in the form of systems especially lacked actually proven knowledge compelling to every rational being—if we leave the primitive rudiments of geometry out of account. 181

The Sophists, those first of dogmatic skeptics, were not content with doubting, though. They denied—at times in extreme pronouncements—objective reality in general and the possibility of objectively valid knowledge in general with extreme universality. And, they did not just deny. They based this negation on theoretical arguments. There was obviously something absurd in such argumentation. With this very contention and the grounds for this contention, they laid claim to the objective validity of the knowledge and of every foundation for knowledge that they <contested> *in thesi*.

As live human beings acting rationally in the midst of actual reality, orienting themselves in terms of it, setting their goals within it and rationally pursuing those goals, the live Sophists, I say, believed as much as other people in the difference between reason and unreason, between knowledge and error. They trusted arithmetical calculations. They trusted the rationally practical predictions that draw their justification from perception and experience. Their theories contradicted their live convictions, and already implied in this in a certain way is that these theories could not actually have served, or at least should not have been allowed to serve, to express what was verbally signified. *What actually found expression in the form of such theories, what was*

actually concealed behind those theories, was not so much the earnest negation of knowledge in general, or earnest doubt about the validity of knowledge in general, *but unclarity about the meaning and possibility of knowledge as concerns its objective validity and attainments*. The conflict one fell prey to in reflecting upon knowledge, the unclarity from whose snares one could not free oneself, might indeed momentarily determine inclinations to judge and even convictions that knowledge was not actually possible, there was no knowledge in the sense alleged by science, there was no objectivity of validity of knowledge. But, such convictions already could not be sustained for an instant in practical, active life, and their internal absurdity could not remain concealed either. At any rate, even though they could not be seriously adhered to, the essential function of these theories remained to provide *the most palpable expression of the colossal predicament in which the mind is already entangled in first reflecting upon knowledge*.

With the further development of philosophy, science, and skepticism, this peculiar function of skeptical theories stands out far more distinctly. The convictions upon which the possibility of a practically rational actual act is based always require justification. Skepticism can limit its worth, but not seriously call it into question and contest it. And, that is no less true of the knowledge of the developed sciences. Doubt may be leveled at individual, hasty theories, may limit or negate the validity of individual scientific theories. But, the major sciences that have been developing since the Renaissance, and have presented humanity with such an abundance of accurately secured theories, stand before every rational being as indubitably valid. Everyone makes use of the reshaping of the realities of human life by the techniques of the natural sciences. All experts acknowledge the authority of its predictions, no matter how skeptically they may otherwise behave.

And yet, time and again, even after the development of these sciences, and in spite of their wonderful and constant advances, there are skeptical theories, theories especially leveled at the rationality of these sciences. What can the actual significance of proclaiming such theories therefore be? Surely once again only that of supplying the most extreme, most palpable expression of a desperate lack of clarity about the significance of such knowledge and its objective claim to validity, and furthermore of having the *problem of knowledge adopted*

as being the philosophically most fundamental one, as <the one> 183
decisive for all definitive elucidation and interpretation of science.

Yet, I must mention here the following about the characterization of *modern skepticism* in contrast to the skepticism of the Sophists.

- 5 We label as skeptical not only contentions and theories which, like the skepticism of the Sophists, contest the possibility of any knowledge in general and science in general, which therefore would prove by deliberation on the universal nature of knowledge and the testing of all sources of human knowledge that in no single case is the possession
- 10 of truth to be guaranteed. What we call skeptical theories in modern philosophy are rather theories that deny the possibility of rational justification of any of the essential main types of knowledge and science whatsoever and seek to substantiate this denial scientifically.

- 15 Of course, the interconnectedness of the different “sources of knowledge” is such that the denial of the rational productiveness of one would also block all the others. And, connected to this is the fact that, upon closer analysis, every skeptical theory, even of a moderate modern kind, harbors absurdity within it of the same type that surfaced so markedly in ancient skepticism. It is frankly the essential characteristic of all skeptical theories, the criterion by which we recognize them, that in the content of their theories they contest and seek to prove impossible what they themselves as theories presuppose; or at least this, they commit the absurdity of contesting essential conditions of the possibility of precisely such theories as those
- 25 they themselves are developing in arguing skeptically. Reason enters into any genuine skepticism in conflict with itself. The greatest skeptic of modern philosophy, D. Hume, openly admits this conflict. He objects to the rationality of all sciences of matters of fact, not only metaphysics, but all natural science too. And yet, he declares all those
- 30 deranged who do not permit themselves to be guided practically by the assurances of natural science and really doubt its validity. Therefore, Hume did not in the least think about abandoning the modern natural sciences and discarding them with, say, alchemy and astrology, as fictions and foolishness. What can his skepticism therefore signify?
- 35 On the deepest level, nothing other than despair about the possibility of understanding the objective attainments and validity of sciences of 184 matters of fact.

Modern skepticism is therefore not actually leveled at the sciences. It has also never harmed the sciences and has never been felt by the sciences to be an enemy. What it is leveled at is the view <that> the rational constraint that science exercises upon us all when we inquire in it, or think over the theories it has already developed, already includes an understanding of the meaning of science, of the meaning of its objective attainments, and an understanding of these objective attainments.

Every skeptical theory is an expression of the agonizing predicament in which we land as soon as we begin to reflect upon the essence of science, as soon as, therefore, instead of pondering about specific fields of research and what holds for them in terms of facts and laws, we throw open the questions that we have characterized as epistemological. What might objective validity then be and how does it reveal itself in subjective acts? How is objectively valid theory to become subjective property in knowing in its various forms and able to concern things existing in themselves besides? How is it to be understood that, for example, in the natural sciences, we are able to advocate theories that, going beyond direct perception and actual experience, span the entire universe with its infinite past and future? *And, what would this reality that is known in science itself then be? What meaning does the understood, elucidated meaning of the science of reality dictate of the idea of reality itself?*¹⁴

<(b) Critical Skepticism as the Position Taken in Critique of Knowledge>

I have demonstrated that reason's internal conflict with itself finds expression in theories of dogmatic skepticism. In the natural state, in the theorizing of the natural sciences, reason feels completely satisfied, but immediately lands in the most painful predicament as soon as it begins to reflect about the meaning¹⁵ and possibility of knowledge, a

¹⁴What, then, does meaning mean here? What in conformity with reality actually and finally pertains to the final logicized science of reality, or to the system of such sciences, what science of reality truly is? But, does critique of knowledge have an effect on that? And what effect?

¹⁵What does about "meaning" mean?

predicament that ends in despair about ever being able to understand the possibility of knowledge in general, or the possibility of major areas of knowledge in terms of validity and meaning of objectivity. But, as regards its verbal expression, even though not necessarily the actual belief, instead of the actual predicament, of the understanding's actual incapacity, dogmatic skepticism proclaims the objective impossibility of the types of knowledge concerned and, with a semblance of scientific seriousness, gives theoretical reasons for this (from behind which the absurdity, of course, peeps out).

- 10 *Critical skepticism*, the kind inseparable from the idea of a critique of knowledge, differs from dogmatic skepticism in that, in that situation of absolute confusion and perplexity, it gives up all dogmatic theorizing and denying with respect to knowledge. *Epistemological skepticism, therefore, does not disavow any knowledge*, does not
- 15 disavow any of the existing sciences. It does not contest them in any respect, neither with respect to their practical soundness, nor their rationality. But, it forms no opinion about all knowledge and science. It makes all knowledge and science into a problem. We can also say that it calls "all science into question", but not in the sense
- 20 of dogmatic skepticism when it declared science unfounded or unfoundable. Its position is traced out for it by the total perplexity about the meaning and the possibility of knowledge. It says to itself: Reflection about the essence and sources of justification of knowledge, about the meaning of its objectivity, and so on, have cast me out of the paradise of epistemological innocence. If I shift to the naive standpoint
- 25 in the attitude of natural thinking and theorizing, then I experience rationality <in> all genuine sciences. If I rise to the critical question asking of epistemological reflection, then I experience irrationality everywhere. I do not understand anything. Everything becomes prob-
- 30 lematical to me. I can no longer have the splendors of the paradise of the sciences at my disposal. I am cast out of that paradise. Perhaps, 186
I can regain it in a higher sense through critique of knowledge.

- 35 In other words, since we do not understand knowledge and science in general, i.e., at the beginning of critique of knowledge, then we should not recognize any of the existing sciences. We should not recognize them, but just as little should we disclaim them. Subjectively, we may be truly firmly convinced that the preestablished sciences deserve to be called authentic, rigorous sciences. And, we may have

- won this conviction through earnest study of them. Inquiring into the foundations of mathematics, for example, we find ourselves defeated. We see that what is proven is demonstrated beyond a doubt. But, as soon as we begin to reflect epistemologically, that does not help us.
- 5 Abysses of problems open up, and we come to admit that *knowledge's claim to legitimacy is in general a puzzle*. As long as the puzzle is not solved, as long as the essence, possibility, and objectivity of knowledge not elucidated, the meaning of knowable and known objectivity not elucidated, then all preestablished, determinate knowledge is subject
- 10 to a big question mark. The sense in which its claim is to be recognized, the being grasped in it to be interpreted, is enigmatic. That is, therefore, the *position taken in critique of knowledge*. (Everything is in question, everything a problem. No knowledge, no matter how obvious, is to be admitted, but none disclaimed either. It is all problematical
- 15 to the same degree, i.e., forming part of the problem of theory of knowledge.) In the historical course on Kant (comp. 132 f.),¹⁶ I said: Since the meaning of knowledge has become unclear to us, since we are thoroughly perplexed about what knowledge is, what it attains and means, we cannot rely on any preestablished knowledge. Since
- 20 we are thoroughly perplexed about what science is, what objectivity is, why scientific cogency hinges on logical form, etc., we obviously cannot then use theorems from any science. The sciences cannot be a source of help for us epistemologists. They cannot offer us any possible basis, any insights, upon which we might rely. Rather, they
- 25 are problems for us. They are absolutely the objects of our inquiry. Consequently, as a philosophical method, absolute skepticism means nothing more than that the path from natural knowledge to philosophical (metaphysical) knowledge consists in questioning all natural knowledge.
- 30 That I am, that things are outside me, that a world exists with sun, moon, and stars, all this remains to be seen. The most unshakeable knowledge of mathematics, the axioms, no less than the theorems, the marvelous theories of physics, biology, psychology, and of every other science, all remain to be seen. Everything is in question.

¹⁶ It must be a matter of the course "Kant und die nachkantische Philosophie" of WS 1905/06 (comp. Husserl-Chronik, p. 93). About manuscript evidence for the lecture see Hua XXIV, p. XVII, n. 4 (Editor's note).

Everything is put out of action in the epistemological standpoint, and nothing, be it ever so highly valued within the natural sciences, may now be claimed as something preestablished, something supposedly absolutely indubitable. The question is indeed directed in a completely general way at the possibility, meaning, attainment of objectively valid knowledge in general. As long as that is not resolved, or rather work on it has not been taken up once again, all knowledge is concerned by it, is questionable as concerns its ultimate meaning and justification, therefore, may not be considered unquestionable beforehand.

This skeptical position-taking, this absolute *epoché* that does not recognize anything given beforehand and sets its *non liquet* as a pure refraining from judgment before all natural knowledge, is the first, fundamental piece of the epistemological method. A theory of knowledge that does not seriously begin with this *epoché* sins against the meaning of genuine epistemological problems. Any relying upon preestablished sciences, be it upon metaphysics, be it upon psychology, be it upon biology, ends up in absurdity, just as it began in absurdity.

It does not matter, as I would like to emphasize, whether a theory of knowledge appropriates for itself the honorable title of critical and whether it itself boasts of combating psychologism and empiricism or biologism. But, what matters is the sense in which it does this and in which it understands critical philosophy. Those who only make natural presuppositions on one point, those who only draw from the natural sciences on one point, or rely upon givens of natural apperception, have to pay the penalty for that through contradiction and absurdity. The Moloch of dogmatism consumes those who even once, be it ever so unconsciously, have sacrificed to it. Indeed, the *genuine, radical meaning of dogmatism in contrast to critical philosophy* actually lies here, namely: in presupposing special knowledge, the possibility of whose determination has yet to be discovered by critique of knowledge, as providing premises for the elucidation of the essence of the possibility of knowledge, therefore, above all, right at the start of theory of knowledge, treating entire sciences like psychology, physiology, and biology as givens.

<(c) The Difference Between Logico-Mathematical Perfecting
and Epistemological Elucidation>

- The skepticism with which critique of knowledge must, by its nature, begin essentially differs from *Cartesian skepticism*, though it also parts ways with historical skepticism and has the character of method and a position-taking. The methodological objective of *Cartesian skepticism* (in contrast to that of theory of knowledge) is to help us find the absolutely certain, radically ruling out any doubt, rock bottom of science. Each and every thing is subjected to doubt. The existence of the external world as it appears to the senses, the testimony of memory, the soundness of the distinction between normal perception and illusion, the strength of experience, finally each and every science, even mathematics and mathematical natural science. After the overthrow of all opinions adopted uncritically or systematically developed in the form of would-be sciences, a complete rebuilding of all science is to be realized on absolutely unshakeable ground, namely that which proved absolutely capable of withstanding all attempts at skepticism, so sure that every doubt is dashed to pieces on it as meaningless. According to Descartes, the insight of the *cogito ergo sum* is of this type. Though I may wish to extend my doubt to each and every thing, in doing so, there is one thing I cannot meaningfully deny. One thing is absolutely certain, namely that, while I am doubting, I am really doubting, that I am thinking, that I am. And, starting from this basic knowledge, this Archimedean point, I am then to advance from cognition to cognition, from science to science, <in> absolutely certain steps that provide just as reliable backing for each doubt as the *cogito*. The whole of critically secured knowledge then develops as a single, ideal, universal mathematics, a single universal science of absolutely ideal stringency.
- However, this skepticism is not the one the critical posing of the problem requires of us, therefore, does not agree in meaning and intent with the one we ourselves have described. We do not wish to deny that the method of negating all knowledge in order to bring knowledge to the fore which, owing to its special nature, makes any doubt seem obviously absurd can be made fruitful for the critique of knowledge. It is also undeniable that Cartesian universal doubt,

or rather universal attempt to doubt, at the same time implies that universal calling into question that we require. But, the goal we are setting is a different one. We are not thinking of making the insights won into the foundations of a universal mathematics, of an absolutely stringent science of the universe. I certainly sense that Descartes already had the critical goal in sight, but it is undeniable that he confused it with another goal.

The basic knowledge that our *epoché* systematically has in view is not in any way of such a kind that its possession could be of very much help for a Cartesian universal mathematics. Neither does it give the naturally developed sciences new fundamental theorems, namely premises, and major terms, nor does it give essentially new methods for obtaining such major terms, or for being able to build sciences of the most rigorous kind. Only covertly (this may be conceded) might a deepening of epistemological insight also be of use for the systematic perfection of the sciences. The existing sciences are essentially neither enhanced nor downgraded by the truths of critique of knowledge. In any case, they need not be. Only one thing has changed. *They have become thoroughly understandable. We understand what makes them sciences, the ultimate meaning of their attainments, the ultimate meaning of the objectivity that they know and determine.*¹⁷

For example, mathematics does not acquire any new mathematical theories, any new mathematical premises, or any new mathematical methods by the theory of mathematical knowledge. At least, a development of mathematics so perfect that not even the least flaw, not the smallest gap as regards stringency remained in the mathematical laying of foundations and theorizing would be conceivable in the natural way and independently of all critique of knowledge. The problems of critique of knowledge would, though, still be precisely the same. This stringency would be a fact and nothing more. Upon reflection, it would be a problem. In proceeding mathematically, we would perceive its Evidenz. Reflecting upon this process, we would not understand it. The empirical, psychological, idealistic, and other interpretations of mathematics would be in conflict with one another, both before and afterwards. And, the same would hold for an ideally

¹⁷That is still to be made clearer.

- stringently grounded natural science. For this reason, we do not slip back into the basic error of rationalism as well, which already proved thereby to be a form of dogmatism, of taking one of the natural sciences, mathematics, most highly valued methodologically, as a model guiding us in philosophy. For critique of knowledge, high valuation and low valuation do not count. And, from the viewpoint of the *epoché*, all natural science is equally valid. Everything is saddled with the same big question mark. And, science naturally cannot help us in progressing in critique of knowledge either. *For critique of knowledge is not about theorizing. What it is about does not lie upon any path of mathematics, or natural science, even psychology.* It is about “elucidating”. It is not about deducing anything, not explaining anything by laws as explanatory grounds, but simply understanding what is implied in the meaning of knowledge and its objectivity.
- 15 *The tendency toward the logico-methodological perfecting of the sciences and toward their extensive expansion and, on the other hand, the tendency toward the clarification by critique of knowledge (or toward a clarification of the essence of knowledge in general in the form of a general critique of knowledge) are indeed to be separated.*
- 20 The former aims at the completion and perfection of natural knowledge. The boundaries of every concept are to be fixed and its identity secured, every basic proposition is to be evident by itself, every judgment directly passed self-justifying in terms of certainty or probability. And, every further step is to be carried out in consciousness of its well-weighted justification. The ideal is a scientific cognitive whole that can be run through, through and through in the consciousness of immanent Evidenz and be conscious as legitimately substantiated. Every genuine science must be expecting the question of legitimacy in every step and it must satisfy it. It must be able to prove its legitimacy.
- 25 But, the only reflections that are required for the goals of this justification are logical in the narrow sense, in the sense of objective logic as formal, real logic, and in the sense of noetics. A second, different tendency is that toward illumination by critique of knowledge, toward an understanding of the meaning of knowledge and of its objective claim to cogency.¹⁸ The task of critique of knowledge persists just as

¹⁸That must still be discussed in greater detail.

well with respect to the completed, absolutely stringent sciences to be known thoroughly in consciousness of legitimacy and Evidenz as with respect to the less perfect, less stringent ones. Yes, the ideal of stringency is first to be striven for and to be realized in the different ways and then the completion and interpretation of critique of knowledge striven after. What the latter realizes is, as we know, a metaphysics.

Perhaps, it would even be good so to broaden the term metaphysics as to be able to speak, not merely of a metaphysics of nature, but also of a metaphysics with respect to the ideal sciences, for example, the formal mathesis. (The terms metaphysics of the calculus, metaphysics of mathematics have, after all, long been common in France, at least partly in a similar sense.) Even the Kantian expression metaphysics of morals belongs here for reasons I shall discuss later. We could, therefore, say: *After the sciences have attained immanent stringency and logical perfection*, or at least in systematic parts as concerns their foundations and theories, *the task of their metaphysical interpretation arises*. Like logic in the narrower sense of logical perfecting, so higher logic, critique of knowledge, serves metaphysical interpretation. 192

Descartes did not see this difference. In his thought, both tendencies cross and become entangled. In his ever memorable *Meditations* and *Rules for the Direction of the Mind*, the tendency toward critique of knowledge receives a powerful stimulus for the first time in the history of modern philosophy. However, Descartes was not just a philosopher, but heart and soul a natural scientist and mathematician and as such governed by the ideal of an ideally stringent universal mathematics. *Being a scientist and a philosopher are just two different things, or, science in the concise sense and philosophy are to be sundered*. Perhaps, one may say: It is in general not good for someone to be a scientist and a philosopher at the same time. And, perhaps the reason for the low level of proper philosophy in our times is that a natural science (a science in the concise sense) that is still traditionally counted as part of philosophy is the main field of activity of so-called philosophers, namely psychology, a circumstance that contributes its share to the fact that the essence of proper philosophy and the set of problems proper to it is overlooked or not understood.

<§34. *About the Possibility of Theory of Knowledge After Performing the Epoché*>

<(a) The Self-referentiality of Theory of Knowledge>

After we have made clear the meaning of epistemological skepticism
 5 as a methodological precondition of the beginnings of a theory of
 knowledge, the question however arises as to *how theory of knowledge*
is still possible afterward, and how it can unfold as a scientific disci-
 pline in a series of progressive cognitions without slipping back into
 the prohibited psychologism.¹⁹ If we adopt the position-taking of the
 10 absolute *epoché* required, if we make use of no preestablished knowledge,
 if we hold each and every thing in abeyance, then we obviously
 do not fail to do something, but we do not retain anything either. We do
 not have a single bit of knowledge. And, shall we have any, be able
 to acquire any? The *epoché* is surely not itself already a method. It 193
 15 is at best a piece of a method. How is an actual, complete method of
 knowledge to be established here? We must obtain clarity about this.
 The possibility of a method first ensures the possibility of the discipline.
 The situation at first appears rather desperate. All knowledge is to be
 problematical. But, *the epistemological knowledge we are seeking*
 20 *is indeed knowledge. It therefore seems that theory of knowledge is*
needed in order to obtain theory of knowledge, which seems to show
 that theory of knowledge is impossible in principle.

Let us reflect. The precious core of Cartesian doubt may help us a
 bit further. Before we enter into it, we shall, however, be able to say
 25 the following: Theory of knowledge does not mean to be anything
 more than *self-understanding on the part of knowledge*.

It is now obvious that we cannot assume a position outside of
 knowledge in order to throw light on dark areas of knowledge and
 to solve problems that it itself raises for us. Only by knowing are
 30 we able to shed light on knowledge. If all knowledge then becomes
 problematical for us, or, *if knowledge in general becomes a prob-
 lem for us, then some knowledge is already implied in this*, and

¹⁹ Compare the following lecture (146) <§34b ff. below>.

absolutely indubitable knowledge, *namely that knowledge in general is problematical*, or that knowledge in general harbors one obscurity or another and for this reason becomes a problem. It is also further an Evidenz that it can only be in knowing that the problem is solved, that the meaning of the knowledge sought unveils itself. Consequently, it is certainly unquestionable, and again completely evident, that questions concerning all knowledge also affect the knowledge in which, as already in that just realized, these reflections about knowledge itself lie. Nevertheless, this is not to say that those kinds of reflections about the meaning and possibility of knowledge are meaningless and must remain fruitless, that, say, the Evidenzen with which the reflections begin, and in which they advance, are not Evidenzen, not knowledge, something doubtful.

The necessary referring back of the elucidation of knowledge to itself is manifestly something belonging to the essence of knowledge as such. It would be perfunctory and fundamentally wrong-headed to pull in thoughts of some lamentable obtuseness of human knowledge here. If we appeal to the idea that presents a meaningful concept demarcating theory of knowledge, to the idea of absolutely perfect, of a “divine” knowledge, to the idea—i.e., we are not presupposing here that God exists—then it is self-evidently clear that even for absolutely perfect knowledge, for a God, the question about the meaning of knowledge makes rational sense and that, even for a God, the solution of the problem of knowledge would only lie in a critique of knowledge referring back to itself, therefore, would be realized in a series of cognitions also initially afflicted by their own doubt. 194

It is further to be kept in mind that its standpoint is not that of skepticism in the dogmatic sense, of knowledge disclaimed beforehand. Its standpoint is not that of the *epoché*, which refrains from any judgment on principle, but rather that of the *epoché* with respect to preestablished, not yet illuminated knowledge, and indeed of knowledge afflicted with a problem. Its standpoint is that of the questioning that confesses here that it does not understand knowledge. And, consequently, epistemologists begin with precisely this declaration: I do not understand knowledge, I may, therefore, presuppose nothing, admit nothing unexamined as preestablished and make claims about nothing (actually, I may not do that in any science), I must first become clear about it for myself. And, they further ask: Is there in the entire

realm of knowledge anything of such a nature to begin with that it harbors none of the unclarity that torments me, whose meaning is fully clear, that indubitably contains nothing questionable, about which, therefore, claims may be made epistemologically?

- 5 Certainly, to begin with, we declare all knowledge questionable in vague, general ways because, disconcerted by contradictions and obvious drawbacks in the interpretations of preestablished knowledge, we become aware that knowledge is not something understandable without further ado, therefore, is a problem. But, then we go further. We want
- 10 to orient ourselves in the realm of knowledge (within the entire sphere of knowledge, equally, but vaguely, questionable before the critique). We want to wait and see whether we do not find instances of knowledge that upon specific, direct inspection figure as absolutely given and indubitable. They must be of such of a nature that any doubt is
- 15 pointless for them, that any possible question concerning their “meaning” and their possibility is answered *eo ipso* as soon as it is asked, that nothing can be intelligibly said about any unclarity with regard to them. Within the sphere of such cases, one can then wait and see what corresponds to epistemological concepts like being, truth, and so on,
- 20 finding application in them, what their obvious, absolutely clear meaning is there. And, afterward their meaning can be established, only with the proviso that it may have a narrower meaning that upon expansion of the sphere of examples of illuminating clarity will be shown to be a mere type. If we continue thus step by step, we then reach ever more
- 25 secure ground that eventually takes in the entire sphere of absolute clarity and indubitability. And here, on this ground, the meaning of all epistemological concepts must finally be verified and from it the full measure of clarity and strict adequacy drawn.

30 <(b) The World of Phenomena as Sphere of Absolutely
Indubitable Givens>²⁰

In the last lecture, we threw open the question: How is a theory of knowledge in general possible if asking epistemological questions immediately requires an *epoché* on our part? Refraining from

²⁰ Compare Appendix A IX (Editor's note).

judgment is surely not a method of obtaining knowledge; it is at most a piece of a method. Refraining from judgment can only <be> something temporary and transitory, or something not in every respect unlimited. Otherwise, we do not acquire a single bit of knowledge, let alone an entire theory of knowledge. But, the situation in theory of knowledge seems to be so desperate that it demands absolute skepticism on our part, or absolute refraining from judgment. Actually, *knowledge in general ought to be problematical*. But, the epistemological knowledge we are seeking is, of course, also knowledge. *Therefore, theory of knowledge is needed to obtain theory of knowledge*. Therefore (how are we to escape it?) theory of knowledge is impossible on principle. If, however, theory of knowledge is impossible on principle, then one could quickly further argue that knowledge in general then remains problematical. There cannot, therefore, be knowledge for us in the strict, concise sense, knowledge whose truth is unquestionably and indubitably certain. Therefore, everything is doubtful. Absolute refraining from judgment is the sole rational, practical consequence. 196

But what have we fallen into? That is, of course, dogmatic skepticism laden with all its contradictions. How may we, which is just plain absurdity, set down the doubtfulness of knowledge in general as being indubitable and certain and substantiate it in a supposedly indubitable way? If everything is doubtful, if nothing may reasonably and seriously be maintained, then this theory that we spun out a moment ago is nothing that can make any serious claim either.

We may not conclude this. We must keep in mind that the proposition "all knowledge is problematical for us" is ambiguous, namely the "problematical", the talk of "being in question" is ambiguous. It should not be said that knowledge, true, genuine knowledge, is never given, that theory of knowledge has first to decide for every bit of knowledge whether it holds or not and that it dispenses with any inherent justification beforehand. A theory of knowledge that began in that way would obviously be absurd. Then, theory of knowledge would really itself need the theory of knowledge to be able to put forward a valid assertion. It is in general absurd to make the legitimacy of any knowledge first of all dependent on findings of any theory of legitimacy of knowledge and of any other science, as if before consulting the latter, which surely as a science is itself knowledge, no

assertion might be legitimately stated. It is certainly right for logic to put forward laws to which all knowledge is subject, for critique of knowledge to provide explanations within whose universality all knowledge falls. But, that does not signify that before logic and critique of knowledge are constituted and drawn upon as a norm, no knowledge is knowledge, none bears its proof of legitimacy within it.

All knowledge is problematical for us. That means that in reflecting about knowledge and science, with regard to the subjectivity of knowledge, on the one side, about the ideality and objectivity of the cognitive content, on the other, we have become confused. We do not understand how objects as such can claim to exist in their own right, or how in its subjectivity knowledge as such can claim to make something existing-for-itself into something existing-for-me, to reach the object cognitively. We do not understand how the meaning content of the cognitive act as a proposition is to be an ideal unit (and yet, the proposition as such claims to be an ideal unit), nor how such an ideal unit is to be immanent to the subjective act. In reflecting about knowledge, we become entangled in this regard in pseudo-theories like those of psychologism, biologism, relativism that, on the one hand, appear very plausible, even well-founded, but on the other, end in manifest absurdity.

We want to help ourselves out of such confusions. We see ourselves disposed to perform a certain *epoché*. The problems affect all principles of the possibility of science, their entire logical structure (in terms of meaning and meaning form), their ontological foundations, their noetic valuation. Therefore, we may take no science as a foundation, admit no scientifically grounded fact or laws as pregiven, known, as utilizable for the goals of the critique of knowledge. That is not to say: All that is false, all science worthless. And, even less does it signify: We may in general not state anything more; if not even scientific statements are admitted, then extra- or pre-scientific ones even less so. So, we may surely *state* as certain, *as absolutely certain, that we are in this confusion*, that upon reflection knowledge presents one problem or another, a proposition that surely no pre-established science has to ground and that none puts forward either.

We make knowledge into a problem, knowledge in the broadest sense of thinking in general and in the narrower sense of cognitive thinking. We seek to acquire knowledge relating to knowledge,

- making the possibility of knowledge of an objectivity and the meaning of an objectivity of knowledge intelligible to us. That is surely a completely legitimate quest, above all, expressed in the natural sense and apart from skeptical doubts about the possibility of knowledge. Cognitions are not just realized by us. We can also reflect upon cognitions realized, make them into objects in reflection, make statements about them, compare them with one another, classify them, etc. We can be cognitively concerned with cognitions just as with other objects. Cognitions may be objects of cognitive inquiry in different respects, why not also with respect to the problems now tormenting us? If these problems, these most painful of all epistemological predicaments, waken tendencies to skepticism in us, namely to doubt whether we may now in general dare attain any knowledge and claim any fact as being true, *then we resort to the fundamental Cartesian meditation that actually belongs at the beginning of theory of knowledge*: Absolutely universal doubt is absurd, I may doubt all sciences, I may doubt the existence of nature (the existence of my ego), I may doubt anything whatever, but in so doubting, I cannot doubt that I am doubting. And, belonging here is also what was already used earlier: In feeling perplexed about knowledge, I cannot doubt that this perplexity is something, that these confusions exist.

- As trifling as knowledge of this kind may seem, it is knowledge, and in it objectivities are certain and absolutely indubitably certain—and precisely the objectivities that must be absolutely certain to me if I am to be able meaningfully to conduct an epistemological investigation. Whether nature exists, whether human beings exist, whether I myself exist as a real, selfsame person in the flow of time and intertwining of relationships with the world, all that is subject to epistemological doubt, all that must remain to be seen. For theory of knowledge, it is not important for us seriously to doubt in this respect. But, for the goals of epistemological investigation, we may make no claims about any of it. The existence of nature is problematical precisely insofar as the being-in-itself of a nature that is what it is, whether it is known in subjectivity or not, is a problem with regard to meaning and possibility.

Even if we are actually doubtful about them, though, one thing is certain: that now, while I am doubting or questioning, such and such perceptions (namely those actually performed) exist, that in

them such and such objects appear to me, likewise, that the thought “natural science” exists, that natural science exists as a phenomenon, and if I have precisely called one theory or another to mind, these theory phenomena exist. *Any sciences whatsoever, any theories* 199
 5 *whatsoever, any knowledge whatsoever exist, not as validities, but as claims to validity, as validity phenomena,* as often as I as an epistemologist realize the corresponding perceptions, thoughts, theory presentations, and so on. In characterizing all sciences and all correlative objectivities, like nature, soul, God, as questionable, I retain
 10 everything left over as phenomena. *I can make free use of this world of phenomena.* The phenomenon exists as phenomenon and can be reflected upon in terms of its content and meaning.

If I do not understand how subjective perception can actually perceive a real object, grasp it cognitively in its way, if I doubt the sense in
 15 which it can do this, indeed, if in my perplexity I doubt whether it can in the least do this, then I nevertheless have the perception. It is an absolute this-there, something whose existence it makes no sense to doubt.

In this investigation, I naturally constantly realize cognitions. It is indeed obvious and grounded in the essence of knowledge that
 20 knowledge is needed to shed light on the essence of knowledge. We already recently said that it would be nonsense to see some limitation of human knowledge in this, since any, even divine, knowledge can only determine the universal essence of knowledge in acts of knowledge, and that consequently any theory of knowledge, even
 25 knowledge <of the> Absolute Spirit, is self-referential. As particular cases, the cognitive acts of epistemological investigation are subject to the general elucidations of knowledge that it objectively determines. This situation need not, however, disturb us. The cognitions performed use no pre-given premises from the sphere of transcend-
 30 ent uncertainties that are epistemologically unverified in terms their admissibility. Every step is realized in a sphere on principle experienced and constantly verified in this regard. The fundamental Cartesian meditation gives the indubitable field, that of *phenomena*, more precisely of cognitive phenomena. And then, it is time to ask questions,
 35 engage in analyses, and clarify on the strength of them. In that, all of science figures, not simply as a given, but as phenomenon, not as validity, but as appearance of validity, apparent claim to validity. 200
 This appearance can, like any other, be analyzed. Of course, the acts

of cognition, the acts of presenting, of judging, of conceptual fixing and determining in which the investigation itself operates, in which it itself is constituted, and which are not objects for it, are performed cognitive acts, not critically analyzed and tested.

- 5 Certainly, needed too is reflection upon the investigation in terms of performed investigation. Besides the elucidation of natural knowledge, an elucidation of epistemological knowledge is needed too, deliberation as to whether it itself yields new cognitive occurrences and whether the elucidations of the first level already include everything
10 permitting elucidation of occurrences on the second level.

- If anybody wants to fret about this, since reflection can in principle be initiated over and over, it is then a matter for further investigation whether universal insights do not result that preclude the regression.²¹
In any case, however, the investigation is meaningful and immanently
15 justified over and over. Its intent is not just to ground knowledge prior to and without knowledge, but its intent from the beginning is none other than to make knowledge itself into the object in knowledge and to elucidate the aspects of it that brought perplexity along with them. That, however, such an investigation is possible, and is
20 so without all naturalistic presumptions and the absurdity caused by them, has clearly emerged from our considerations. Reflection is one of the absolutely evident basic facts of knowledge, and the absolute certainty of the existence of actual phenomena of reflection²² provides the field and everything we need for the solution of the
25 problems. Implied in the nature of the problem is that it must be realized purely within the sphere of absolutely, indubitable givens, of givens that must be shown and seen as absolute there. Implied in the nature of the investigation is that it cannot operate with hypotheses and transcendent substructures without becoming meaningless. It
30 cannot even admit the hypothesis of the legitimate “self-confidence of reason”. Pure seeing and analyzing in pure seeing have no need of any hypothesis that the self-confidence of reason does not mislead. 201
The investigation does not need any mythical concept like reason either. It only operates with the phenomena and species concepts of
35 phenomena that it has directly on hand and directly analyzes.

²¹ Hegel.

²² Why do I need existence of phenomena for that?

<§35. *The Radical Difference Between Epistemological
and Psychological Orientations of Inquiry*>

<(a) Psychology as Natural Science Is Burdened with the Problem
of Transcendence>

- 5 *And now, let us go back to the question about the relationship
between theory of knowledge and psychology.* Is it not obvious, one
would like to say, that epistemological investigations are carried out
as psychological ones? Is not the method completely obviously a
psychological one? Epistemologists go back to the phenomena that
10 were given to them by the Evidenz of inner perception in virtue of
the Cartesian meditation on doubt. They form no opinion about the
objects of external nature, but they make the acts, their subjective
acts of thinking, of perceiving, judging, supposing about the objects
of nature that are given to them in inner perception, in that inner
15 reflection, into objects of investigation. They therefore analyze their
perceptions, their presentations, their judgments. In short, they carry
out psychological analyses.²³

- Neo-Kantians and Neo-Fichteans, who use Kanto–Fichtean argu-
mentation to combat any involvement of psychology in theory of
20 knowledge as psychologism and swear by the transcendental method,
have not failed to stigmatize my call for a theory of knowledge going
back to actual phenomena and my comprehensive epistemological
analyses as psychologism. And, on the other side, the psychologistic
empiricists have maliciously said (what a contradiction) that the first
25 volume of the *Logical Investigations* is a genuine breviary of anti-
psychologism; the grounding of theory of knowledge by psychology
is refuted in every way, psychology slain with a thousand arguments.
But, in the second volume, just as the real epistemological investigation 202
begins, psychologism is merrily revived. What does that volume
30 offer? Nothing but psychology.

It is easier to criticize than to study. It is easier to leaf through
books and censure from standpoints taken (i.e., from ingrained preju-
dices) than to delve into the inner meaning and demands of the facts.

²³ No.

Kantians are blind to the phenomenological, empiricists to theory of knowledge. One can write the thickest books about theory of knowledge and for that reason not by a long way need to see the actual issues and method of theory of knowledge. Therefore, let us let the facts speak.

- 5 *Psychology is a natural science.* It is the science of the facts of inner life. It is the science of experiencing individuals with minds, of human persons, of animals, etc., i.e., of things of nature that show the peculiarity of having not only physical characteristics as so-called bodies, but also of experiencing, presenting, perceiving, judging, 10 feeling, desiring, wanting, and accordingly acting as bodies. Just as physical occurrences are occurrences in real spatio-temporal nature, so mental occurrences are as well. They have their objective place in time and objective temporal duration, which can at any given time be objectively determined by chronometers and other tools of measure- 15 ment. By linking up with a physical body, they also indirectly have a relationship to objective space, indirectly their position in space, though no spatial extension.

- Just as physical natural science studies physical events in nature in terms of their coming and going, in terms of their patterns of coexistence 20 and succession, in terms of their individual and empirico-generical types, in terms of their morphological universals, in terms of their particular morphological developments, just as physi<cal> natural science, in other words, establishes itself with respect to the physi<cal> as cosmography (physiography), as natural history, as experimental 25 and theoretical physics, the same also holds of psych<ological> natural science. It is biography (in a broad sense), natural history of the mental, for example, as characterology, sociology, and it is experimental and theoretical psychology and psychophysics, as such not having its eye on concrete, morphological formations of individual 203 30 and social life, but on abstract elementary laws that permit a causal-genetic and theoretical “explanation” of the complex formations of mental life and of its dependency on the facts of physical nature.

- Psychology has always been that and psychology will always be that. Had this concept of psychology not yet been formed, then it 35 would have had to be invented. Most of all, though, no psychology has ever been anything else and wanted to be anything else. We must hold on to this concept and not, as we like, when it suits us, affix a totally different one to the word psychology.

Therefore, psychology is a natural science. It developed as a natural science and is, like any natural, objective science, a transcending science. It is this no less than physi<cal> natural science, with which it is also, moreover, everywhere intertwined. The world is a unity and in its unity
 5 embraces inorganic and organic beings, with and without minds.

As soon as it arises, the problem of transcendence makes all of nature problematical. It must be left aside. All of nature, physical and psychophysical nature, including also mental nature. It would be absolutely false to want to say, and it has been said often enough, that
 10 physical nature is transcendent, is a substructure. On the contrary, the object of psychology is directly given in inner experience. Psychology is the science of mental phenomena (*Erscheinungen*). The mental phenomena are directly given to psychologists, at least their own are. Here, mixing of the epistemological and psychological on principle
 15 already appears. Were psychologists not at the same time, and for reasons of historical chance, philosophers by trade, such an assessment would by no means have occurred to them.

*What are the "mental phenomena" that psychology deals with and in the sense in which propositions and laws are sought or established
 20 for them? Are they not phenomena belonging to human beings, to persons, to animals, etc.? Are they not phenomena having their objective position in time, about whose coming and going in objective time, about whose causal relations in objective time and in relation to
 204 nature, statements are made and knowledge sought? Do people intend to ban the Hipp chronoscope, the complication clock, and other splendid devices of psychological laboratories and just bar access to the
 25 latter? Well, I then ask: Are objective time, objective temporal duration, is personality, the selfsame I as bearer of the phenomenon, all given in so-called inner consciousness? Are they not transcendent and
 30 do they not make the mental phenomena that are studied as objective states of the ego, of the empirical person, precisely as objective states of something real, themselves into transcendents?*

Of theory of knowledge, though, we know that it must practice *absolute epoché with respect to all transcendence*. Hence, its analysis
 35 of consciousness may not deal with everything psychology deals with and may not deal with mental acts, with perceiving, presenting, thinking, understanding, etc., in the sense psychology does, namely in a sense everywhere loaded with transcendental presuppositions.

<(b) The Absurd Confusion Between Psychological Analysis
of Origins and Epistemological Elucidation>

Psychologists and psychologistic epistemologists are wont to include epistemological problems under the heading "Problems of the Essence and Origin of Knowledge". The one heading concerns descriptive, the other, genetic problems. If we are unclear about the meaning and attainments of knowledge, then we just must take a closer look at knowledge, thoroughly investigate it analytically. We must separate the various kinds of thinking experiences, analyze them one after the other with respect to their essential moments and their forms of combination. We want to get to the bottom of the concepts of logic that are vague and fluctuating when examined reflectively. We want to know what they truly mean in logical thinking and knowing. We want to elucidate them. That means that we want to go back to their origins. Concept is <a> word with a fluctuating meaning to begin with. Words are signs that have gradually acquired their meaning in practical life and in science and have progressively modified it. Signs originally had a relationship to certain intuitions, to certain events in the life of the mind. We have to inquire into these and show how the symbols acquire a relationship to them and how, changing, they acquire a relationship, now to this kind of mental event, now to another. Descriptive psychology has to describe these events themselves and, insofar as they are events having a logical function, or having acquired a logical function, going beyond the description, we have to set forth and explain genetically how they came to have that function.

An intellectual function is the function of an intelligent living being. It finds its place in the variety of biological functions that really all have their teleological relationship to the preservation of the species grounded in adaptation and heredity. Epistemologists, for example, ask what logical necessity is. For that, we would have, on the one hand, to investigate the origin of the meaning of the word "necessity", on the other hand (since we <arrive> at a certain differentiation of judgments precisely into those that are characterized apodictically and those that are not), to inquire into the origin of that distinction. Where does the consciousness of a thought's necessity, of apodicticity come from? What grants it its logical worthiness?

The wise Englishman Herbert Spencer, who is considered throughout the whole world to be one of the greatest philosophers of our time, answers: Present in the consciousness of necessity is the accumulation of countless experiences amassed by earlier generations.²⁴ These experiences have, as it were, accumulated in our organism by bodily heredity as predispositions to certain views about things. Precisely the views that we feel are necessary thoughts manifest this accrue-ment of earlier generations preserved in this way and are for this reason certain in a completely different way, have entirely different worth for our knowledge than that simply established and authenticated by our own experience. They alone may lay claim to apodictic certainty.

Anyone who has gone this far with us cannot set great store by such ruminations and must feel inclined to break out in sneering laughter here. Is the psychological–biological source to procure us clarity about the worthiness of knowledge? This theory indeed vividly calls to mind the perpetual motion inventions. Beaming, every one of those inventors tells us that everything is now ready, the machine a perfect one, just one little thing is missing in one place, something that always does this. But, Spencer does not even notice that it is missing there. How does he know anything about heredity and about the amassed experiences of generations who would have experienced over and over the content of the respective principles concerned that are now clear to us as being *a priori* and apodictically certain?²⁵ This little thing is missing in epistemological perpetuation. Naturally, this heredity theory, if it were in general true, could only be substantiated by thought proceeding in a logical manner in accordance with apodictic principles. And, we could only experience the merit of

²⁴ <A.> Spir <Denken und Wirklichkeit, Versuch einer Erneuerung der kritischen Philosophie, Erster Band, Das Unbedingte, Leipzig 1877> I <p. 230>.

²⁵ Nietzsche, vol. 14, p. 13 <F. Nietzsche, *Nachgelassene Werke, Unveröffentlichtes aus der Umwertzeit (1882/83–1888)*. *Nietzsches Werke Zweite Abteilung*, vol. XIV, 1904>: “It is plain that our most severe and most usual judgments have the longest history, therefore, originated and took hold in ill-informed eras—that everything that we believe best was probably believed then precisely for the worst reasons. People have always easily accepted proofs from experience, just as there are still people now who presume to “prove” the goodness of God from experience”.

- this theory progressively in the consciousness of its apodicticity. It presupposes, therefore, the well-founded merit of apodictic necessity that it first of all intends to substantiate. However, criticizing Spencer's theory is not the main thing, nor is deliberating as to whether that is the only thing absurd about it. In any case, it is easy to see that not only this theory, but the *whole absurd mixing of problems of psychological origin and problems of epistemological elucidation* is bad. That theory needed to be pilloried, because its absurdity is too transparent for it to have been allowed to be put forward by a philosopher who is to be taken seriously.

- The *general mixing of psychological genesis and epistemological elucidation* is different. Here, the reasons for confusion are historically obvious. Hence, the first great critical philosophers of modernity already landed in this confusion, Descartes already, with his theory of innate ideas, and Locke already, the patriarch of modern psychologism. One need only open up Locke's famous and truly great work and see through it with eyes opened by the understanding of the genuine meaning of epistemological issues to observe everywhere the mixing up of the two essentially different layers of problems: On the one side, the psycho-genetic ones focussing on the psychological and biological development of the different mental functions of human beings and animals, and more specifically the intellective functions; on the other, the epistemological ones focussing on the fundamental concepts of the theory of science, or on making the objective validity of knowledge and the meaning of the objectivity prescribed by the essence of knowledge understood. From the latter, the epistemological, viewpoint, the history of the development of the human mind and the causal explanation of interconnections in this development are completely irrelevant. It also does not in the least concern theory of knowledge. It is an affair of psychology as natural science, which jointly and severally belongs within the sphere of what is epistemologically questionable and for epistemologists signifies an absolute *non liquet*. We have to observe a strict *epoché*, because the transcendencies operated with there are always and everywhere our problem. Wishing to realize theory of knowledge by causal-explanatory and, in general, by natural, transcending science, is the cardinal folly whose absurdity one has to have made fully clear to oneself.

<(c) The Theory of Knowledge Is Not Descriptive
Psychology Either>

- Now you will, however, object that genetic, causal-explanatory, psychology obviously cannot be of any use to the theory of knowledge. The origination of intellective phenomena within psychological, psychophysical, biological contexts is evidently different from the elucidation of the meaning and objective soundness of knowledge. For example, the causal origination of perception by psychophysical processes and the impact of the after-effects of states of mind left from earlier sensations taking effect later on can obviously teach nothing about the question as to whether and how perception passes itself off as a direct awareness of an object allegedly existing in itself, how it can make this claim and possibly defend this claim. Indeed, if I already know as a preestablished fact that outside of me there are things that act upon me through my sense organs, then I can by all means ask what kind of psychophysical processes are associated and how I may come to perceive these external things and precisely with these qualities that I do and not with ones attributed to them independently of this psychophysical causal complex. If I do not have any preestablished facts, though, if I make clear to myself that this pregivenness lies in certain additional presentations, judgments, in short, purely subjective phenomena whose meaning is precisely just as much in question as that of any perception, then psychophysical knowledge of the processes of stimulus, sensation, and association is of no use to me at all. Things of that nature belong in natural science, in psychology and physiology, and belong with all those sciences in the sphere of what is questionable. Therefore, it is evident that causal-explanatory psychology and its theories of the source of cognitive acts do not in the least suffice in epistemological investigation.
- But, how can I avoid descriptive, purely describing psychology?* We spoke, though, even of going back from the cognitive concepts muddled in the state of reflection, for example, the purely logical concepts or the noetic ones, to the experiences, to the phenomena given in the Evidenz of inner consciousness, in which they have their original abstractive basis. Analyzing the phenomena and pursuing their teleological connections, and practicing adequately befitting abstraction with respect to what is fully intuitively given there, we

- obtain the “authentic” meaning of meaning, of proposition, of judgment, of Evidenz, etc. How in the world are experiences, acts (people even say, and can hardly avoid it, “mental acts”) not to be psychological? And, the inner consciousness in which they are grasped is surely also something mental. Psychologists make use of it as inner perception wherever in their research they eye their phenomena, including intellectual phenomena. They too must describe, classify, analyze, etc., these phenomena, and they are the very same ones as <those> of critique of knowledge. They, therefore, partly surely have a common field of action, and if this field is worked by psychology, and if it belongs in psychology as an original domain, well, then it is certain that theory of knowledge is based on psychology, more precisely on descriptive psychology.

- One can, of course, understand descriptive psychology differently.
- When psychologists outline a morphology of characters, of different temperaments, of different types of association (I am thinking of visual type, auditory type, etc.), they are describing. One will call those kinds of things, not genetic, but descriptive, psychology. Those descriptions must naturally be excluded. The epistemologically meaningful and fundamental-psychological sphere is the sphere of mere phenomena, of phenomena as pure immanence, just as they are beheld in inner consciousness with Cartesian Evidenz. Persons and their characters, their temperamental peculiarities, and so on, are not phenomena in this sense. The person-phenomenon is a phenomenon, but not the person, let alone the person’s usual temperament, revealing itself in various acts and ways of behaving, but themselves not consisting in them. As a flowing experience in inner consciousness, a thing-phenomenon can be grasped. But, not a usual state, a temperament, a character. This consideration, therefore, shows that *we need a narrower concept of descriptive psychology*. A description remaining the same within the sphere of current phenomena, nota bene of phenomena in the strict sense of the Cartesian *cogitatio*,²⁶ may alone be authoritative. How can this definition change anything about our being in psychology?

²⁶ In the twofold sense of the act and of what is referred to as such.

In contrast, the main point is above all to be indicated again. As long as descriptive psychology is psychology in the genuine sense, it is, no matter how narrowly we define it, completely on a par with genetic-causal psychology. Like the latter, no claim may be made for it either, since it implies transcendencies. *And, it really implies transcendencies as long as it still is in any way psychology.*

- Certainly, psychologists also must describe, classify, analyze the experiences of inner perception, and this is certainly the first thing they would have to do, since psychology has sinned so much in this regard. In inner experience, they have what is mental right before their eyes, and only in it. Just as physicists start with external experience, and first of all with external perception, in which what is physical is right before their eyes, so psychologists start with inner experience. *But as long as psychologists are still psychologists*, what is given in inner experience is for them an I-given, and that means the experience of an experiencing person, a fact of nature that has its place in nature, its objective temporality, its objective temporal duration, its objective existence, coming into being and passing away. They do not always need to determine objective temporal nature with a chronometer and other equipment. Natural scientists do not do that either, i.e., when they form general concepts, pass general judgments, when they classify, when they work on morphology, etc. That, however, does not change anything about the fact that for them their objects count as natural objects, as things in objective space and in objective time, though such things may be frequently thought in indeterminate generality. And so, the phenomena are thought as experiences of experiencing, organic individuals when psychologists deal with them and gather knowledge about them, as events thought in the sphere of partly physical, partly psychophysical nature. As such events, as states of persons, as facts of the experience of persons, of would-be inner experience, they are, therefore, of no concern at all to epistemologists, except in the same way as other natural facts, for example, as physical facts, are. Not these, but the fact-phenomena, the fact consciousness, as perception consciousness, fantasy consciousness, judgment consciousness, etc.²⁷ are the domain of epistemologists.

²⁷ But, also the fact-phenomenon in the sense of the perceived as such, of the thought as such.

And, precisely the same holds for mental facts. It is not about them themselves, with their transcendental content, that claims may be made, but only the consciousness in which the relationship to transcendence is constituted, *only the absolute phenomenon that does not harbor any transcendence within itself and for this reason does not have anything more in itself of what characterizes it as a fact of psychology either.* 211

Psychologists, we can also express the same thing in this way, carry out empirical objectification or empirical apperception and carry out empirical judgments and, accordingly, their research operates within the sphere of empirical objectivity. This holds for them in the same sense as for any natural scientist. In contrast, epistemologists, for whom empirical apperception, like everything transcending, is problematical, counter any empirical judgment with their *non liquet*. In the place of empirical apperception or objectification, they do what is phenomenological, in which empirical apperception and the empirical judgment carried out in it degenerate into mere phenomena and, consequently, any judgment-like positing of transcendence is excluded. With respect to this exclusion and phenomenologizing, I am also wont to speak of *phenomenological reduction*.

<(d) The Phenomenological Reduction as the Bracketing Out of Any Empirical Apperception and All Belief in Transcendence>²⁸

The differences that I want to explain to you here between the epistemological, phenomenological research orientation, on the one hand, and the psychological, natural scientific, empirical research orientation, on the other, are somewhat difficult. At first glance, they seem too finely drawn. But, the *truly Archimedean point of philosophy* lies there. It is a question of a nuance, but of one decisive for the constitution of a possible, and of the solely possible, theory of knowledge, and thereby of a true philosophy. It, furthermore, concerns not merely the critique of theoretical reason, but also the

²⁸ Compare Appendix A X and Appendix A XI (Editor's note).

critique of all, even valuating, ethical, reason. The significance is, therefore, the greatest conceivable. And so, I beg you to pay the closest attention to me. We want now to think matters over in a systematically ordered way.

- 5 The natural systematic point of departure from which the stand- 212
point of phenomenological apperception is to be secured is psy-
chology or, what amounts to the same thing, empirico-natural
apperception. The *πρότερον πρὸς ἡμᾶς* is natural consciousness.
The theory of knowledge must, and that is primary for it, raise us
10 up from natural consciousness to philosophical consciousness, from
empirical to phenomenological consciousness.

- We, therefore, speak of “experiences” to begin with, a term that,
therefore, indicates an experiencing I, an experiencing individual,
an individual with a mind. I want to know what knowledge’s relation-
15 ship to an objectivity means and how such a relationship to an objec-
tivity is possible. So, I take knowledge, I meditate on it, I examine
it thoroughly. I go back to my experiences of knowledge. I separate
perceptions, memories, expectations, etc. I experience them. While I
am meditating on them, in this meditating, I am meditating on inner
20 experience, the consciousness of their being my experiences. I grasp
them in relationship to myself, as my mental acts or states. They stand
before me experientially as such, i.e., in believing, in conviction, in
the broadest sense of the word, in judgment. As I can then also state
with conviction: I experience this perception. It is just the same as
25 when meditating on an external thing or its state of activity, I have
this very thing in sight in believing. In external experience, I perceive
the thing, the thing’s changes, and in judgment posit them as exist-
ing. In inner experience, I perceive my experiences, for example, my
perceiving and posit them as existing. At the same time, though, this
30 perceiving as my perceiving, mine, means what everyone posits as
ego, the person who was born at such and such a time, has these
parents, etc.

- Now, let us perform the *phenomenological reduction* step by step.
This ego belongs in the sphere of what is questionable, of transcendence.
35 I form no opinion about it. I change the positing of a judgment just
carried out into a positing phenomenon. I position myself in relation
to it as to a belief into which I imagine myself (as when I speak of
an erroneous belief of someone else) and which I do not share.

I suspend the believing without any decision, either affirming or denying. I then have the I-phenomenon. Naturally, the suspending is further connected to all of the I's natural relationships, to my birth, 213 to my parents, to my physical surroundings, to the whole world with objective time and objective space. Insofar as such things come to my consciousness, I keep on performing the reduction, or suspension. Instead of actual suspension, however, the following suffices: I may believe, but within the critical meditations, within all of theory of knowledge, use is made of no belief concerning transcendence. It may only serve as object and as object of clarification (or example for a class of clarifications). Never may what it believes, the obtaining of the state of affairs, the existence of the thing (*Sache*), be claimed to be valid and relied upon.

Now, I have the perception that figured for me in reference to the empirically apperceived and empirically posited ego only as a piece of an overall phenomenon: of the phenomenon of the "perception of the I". I have excluded all empirical positing on the part of the I-relationship. As far as perception is concerned, for example, the perception of this lecture hall, as long as it is an actual, natural perception, this perception is a belief that posits the lecture hall appearing in perception as really existing and present to my mind. I again phenomenologically reduce this transcendence belief: I form no opinion about the actual existence of the table. *Non liquet*, I bracket out the belief. I make no use of it. The perception becomes the phenomenon "perception". What is still left? I have now continually spoken of my activity, of my believing, suspending belief, etc. Here, in your presence, I have declared this activity to be my activity. Naturally, all that *in suspenso*! Your being, the being of my ego and my activity: all mere phenomena. And, if I now investigate these phenomena, whether for their own sakes, or in their intertwining with one another, and continually keep myself in the phenomenological sphere, never admit a transcendence supposition anywhere, but rather unhesitatingly affix the phenomenalizing signature on each one, then am I still in psychology?²⁹ You will perhaps say: They are, however, *de facto* my, the epistemologist's, phenomena. Every epistemological investigator is 214

²⁹ Compare a page about phenomenological finding and finding in a different sense in the "Appendices and Modifications" <compare Appendix Ax1>.

a mental subject. Only in individual mental subjects, without reaching and believing beyond themselves, is the investigation carried out. But, even if the investigators concerned put their phenomenological reduction into operation, then surely everything they see is, *de facto* 5 their individual experience, and their seeing is itself again an individual experience, and they themselves are surely *de facto* human beings. Therefore, all that is mental and psychophysical.

<(e) The Evidenz of the *Cogitatio* Is Not the Evidenz
of a Fact of Nature>

10 In the last lecture, I described the epistemological reduction. Step by step, we exclude all transcendence in the most rigorous way. No belief, no positing of judgment that puts forth such things as actual may hold. We speak of *suspension of judgment*. In this regard, however, it is to be added right away that, as we already stressed earlier, the 15 main point is not whether the judgment is rescinded in earnest, really suspended in the ordinary sense, but only whether it is deactivated within the entire sphere of epistemological investigation and use not made afterward of what it declares to be true with respect to a transcendence. We need not give up the mental and physical reality that 20 we perceive and about which we have different sorts of empirical and natural scientific knowledge. We need not in the least seriously doubt whether things of that sort exist or not. The meaning of this existing and of knowledge of this existing is in question, and for this reason we suspend our judgment in theory of knowledge, i.e., we bracket it 25 out, we mark it with the sign of doubtfulness, the sign that protects us from making any theoretical use of the supply of states of affairs or objects posited as being real in it. *All our judgments about transcendence may figure only as objects of our investigation, not, however, as judgments used as premises*. Accordingly, belonging in the sphere of 30 phenomena in the sense of phenomenology is every actual perception, every actual judgment itself, just as what it is, but nothing of what is perceived, judged, posited in it in the transcendent sense, or implicitly posited along with it.

Now, we closed the last lecture with the question: If after the 215 35 reduction our investigation operates within the purely immanent

sphere, within the sphere of pure phenomena, are we then still in psychology? One will then perhaps object here: What, *de facto*, are these phenomena other than my, the epistemologist's, phenomena? Epistemological investigators are subjects with minds. The investigation is carried out in their consciousnesses. Their consciousnesses supply the material, and that is, therefore, psychological material. And, if everything they see there is *de facto* their mental experience, then the universal knowledge to which they are relating there is also nothing other than universal psychological knowledge.

- 5 You can, then, just as well continue: *De facto* we exist, we who are investigating epistemologically here, in Göttingen, and *de facto* in Göttingen upon the earth, and *de facto* all of nature exists and everything that natural science teaches about it exists. If it is not completely so, then it is just some other way, as progress in natural science will prove. "*De facto*"! That is indeed the whole problem! About this fact, I do not now know the slightest thing. It is about the possibility that there is something like "a fact" that I am wracking my brain. It has become problematical. Making something into a problem is precisely "calling it into question", or refraining from any judgment that prejudges the question until such time as a correct decision can result. Consequently, I do not have any "*de facto*" at all. I have that prior to theory of knowledge, in the state of epistemological innocence. I have that after theory of knowledge, in the state of knowledge of nature, re-resurrected, traced back to its ultimate ontological value, by epistemology's question bombardment, that is in the state of metaphysics. I do not, however, have any *de facto* in theory of knowledge. In it there is no transcendent givenness, but only the pure phenomenon of givenness.

- 25 Therefore, incorrigible naturalists who do not understand the epistemological posing of problems and do not grasp the very deepest puzzles of knowledge are certainly completely right when they say: Phenomenologists are human beings and the phenomena they have in hand are their phenomena, therefore are mental phenomena. Therefore, everything that they have in hand belongs in psychology. Yes, certainly, it belongs in psychology when it is viewed and investigated as the experience of some mental individual, some empirical individual. But, it is just not investigated as that in the sphere of phenomenological reduction. It is not taken as a fact of nature, as a natural process. That

it is that does not count from the standpoint of phenomenological–epistemological meditation. The fact, like any fact, must be held in abeyance. It is not presupposed and posited as true and may not be so.

- 5 Implied at the same time in the reflections carried out is the necessary correction of the Cartesian meditation on Evidenz, or that circumscribing of its meaning that lays down how it must be understood epistemologically and may not be understood. Therefore, it is not about the Evidenz of the *cogitatio* as my *cogitatio*, of the experience as my experience, that claims may be made, not about the Evidenz
- 10 of the *sum* that establishes my existence in the natural, psychological sense. And, Evidenz of inner perception, of inner experience may not be spoken about (in the case that Evidenz is to signify absolute, plainly indubitable certainty, no longer including any epistemological doubtfulness), but about the Evidenz of what has been directly
- 15 shown in the most rigorous phenomenological reduction and is purely immanently knowable on that basis. *Never may inner perception and phenomenological perception be mixed*, nor may immanent and transcendent generalization, no more than psychological and phenomenological objectivity may.

PHENOMENOLOGY AS SCIENCE OF PURE
CONSCIOUSNESS¹

<§36. *The Relationship Between Phenomenology
and Theory of Knowledge*>

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As a result of our meditations, upon close inspection, a new field of possible scientific research has opened up to us, a new, phenomenological objectivity, a new science, therefore, *phenomenology*. 217
So far, we have been exclusively guided by epistemological interests and, if the critical problems were to be solved, this called for the elimination of all natural objectifications, of all empirical judgments, therefore, for the phenomenological reduction. After we have reached phenomenological ground, however, we readily see that a distinctive kind of theoretical interest can be directed toward everything that is to be explored here, an interest that does not seek to acquire and treat phenomenological knowledge simply in the service of problems of critique of knowledge. We can say: *No theory of knowledge without phenomenology. But phenomenology also retains meaning independently of theory of knowledge*, i.e., independently of the interest in clearing up those remarkable errors and confusions in which reflection about natural knowledge becomes entangled.

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Phenomenology occupies this useful position not simply in relation to critique of knowledge, but also in relation to the critique of practical and, in general, of valuating reason. If we look at the realm of praxis, then we all draw the distinction between rational and unreasonable practice here. We judge actions as intelligent, good, rational, and in contrast to them, other actions as unintelligent, as wrong, as unreasonable. Especially in the realm of morality, we distinguish between ethically exacted and ethically prohibited actions, and people speak of ethical laws that hold unconditionally for every acting person. These would not be laws that say how people in fact act, but

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¹ Compare Appendix A XII and Appendix A XIII (Editor's note).

how people ought to act in rational, and especially, in ethico-rational ways. Likewise, in the whole realm of values.

- 5 In the realm of theoretical reason, skepticism as concerns the developed sciences is never so sweeping that knowledge's and science's legitimate claim to objectivity would be seriously contested. But, the meaning of this objectivity is in question and the confusions on this point result in the falsification of this objectivity and, for example, in perceiving it absurdly as universally human or just biological, adapted to the intellectual state of the development of
- 10 humanity.

- Concerning ethics, the doubt is even more serious. People doubt whether, in general, any ethical objectivity obtains, even just as some universally human one. But, even where objectivity is conceded, people quarrel about how it may be interpreted and how its claim to validity may be made intelligible. Here too, there ought to be something authoritative in the subjective act, in the subjective conscience, and so on, that, going beyond subjectivity, posits and guarantees objectivity. Here too, therefore, analogous problems. Obviously, here too we are then led to phenomenological investigations that, irrespective of
- 15 actual reality, elucidate the meaning of the claim to legitimacy and the objectivity of values correlative to it. *The critique of practical reason is to ethics, the critique of valuating reason to the universal, pure theory of the values and norms of valuing, just as the critique of theoretical reason is to logic.* And, phenomenology then stands
- 20 in the same relationship to all critical disciplines as specifically to critique of knowledge. That is not to say, however, that the theory of knowledge and the corresponding theories of feeling and will (or, that the different critiques of reason) are disciplines to be essentially divorced from phenomenology.

- 30 If we are speaking of theory of knowledge, then we specifically have in view the difficulties that the understanding of knowledge, and of scientific knowledge especially, presents from different angles (i.e., in the reflective stance and with respect to relationships of objectivity and ideality). We are thinking there about the different
- 35 epistemological standpoints and attempts at explanation that begin so plausibly and end so absurdly. We are thinking about the *need for the clarification of pure logic and noetics* and about the *goal of the ultimate interpretation of all natural sciences*. We do not need

to think about all that, though. We can concern ourselves directly and phenomenologically with knowledge, study all relationships belonging to its universal essence, differentiate its different essential generic types, with respect to each one the meaning of its objectivity, etc. If we do that, we automatically run up against the preposterous views that (dispensing with the pure phenomenological method) people have formed about the meaning and attainments of knowledge, up against the absurd theories that people land in since they lump the problems of natural knowledge together with those of phenomenological knowledge, in short, up against the theory of knowledge. Only the focus of interest has shifted slightly. While the metaphysical interest for whose sake phenomenology was practiced reigned earlier, here an independent phenomenological interest is constituted that pursues the problems of knowledge for their own sake and not for the sake of the metaphysical interpretation of the sciences. *That is, therefore, not a basic essential difference.* And, just the same thing holds for phenomenology in comparison with the critique of practical reason and with the critique of reason on the broadest scale.

How far does the term phenomenology extend then? Well, obviously, as far as the possibility of a purely immanent investigation bracketing out all transcendence extends. We can say: It is the *universal science of pure consciousness*.^{2,3} For, in studying the post-Kantian literature, one observes that the word consciousness certainly often enough has an empirical meaning, therefore, has a relationship to empirical persons, or empirical species of living beings, that it, however, seldom displays a tendency to cast off this relationship. Why do people then prefer simply to say “consciousness” in epistemological investigations, instead of mental experience? For the very reason that people feel, and occasionally distinctly observe, that in epistemological investigations into sources, intellectual acts are not at work in empirically psychological apperception. And, lying behind this is the fact that the intrinsic pull of the things imperceptibly presses one to look at the pure phenomena while looking away from the empirical

²Talk of pure consciousness is, however, risky!

³Yes, but that is only suitable for the essence theory of acts and of sensorial contents, but surely not for the essence theory of self-given objects of the “transcendent” kind. Therefore, the sound that lasts, the point in time, etc. Therefore, stop.

- apperception. And so, people also then tend to prefer a term <for that> in this respect. *Phenomenology, or the science of consciousness, is the truly immanent philosophy* in contrast to the immanent positivist philosophies that speak of immanence and the need to circumscribe immanence, but do not understand genuine immanence and the phenomenological reduction that yields it. *It has the task of analyzing pure phenomena, insofar as this is in general within reach, of setting up the categories of their elements and of the forms of their relations and the accompanying laws of essence.* However, doubts then arise as to the possibility of such a discipline.

<§37. *On the Possibility of a Science of Pure Phenomena*>

<(a) The Conceptual Inconceivability of Phenomena
in Their Individuality>

- Phenomenology's investigation goes on in a *sphere of direct seeing*. What is spoken about, what is established there, remains entirely within the framework of strict immanence. If epistemologists now perform this elimination⁴ and if they reduce the evidence of the Cartesian meditation on doubt to the appearing given them at the time, but disregarding everything going beyond the existence of the appearance, *what can they then establish? How is a scientific reflection generally possible there?*

- Naively perceiving, intuiting, thinking, and knowing, I make judgments about objectivities standing before my eyes, or remembered, or thought with general words and indirect symbolic thoughts. And now, I suddenly want to practice phenomenology. I still continually perceive, but I call the perceived objects into question. I bracket out the positing of reality concerning them. I merely look toward the perception as such, not even claiming it as my perception. The existence of this perception is the only thing unquestionable for me here.⁵ Or, I imagine, or I remember one thing or another. This phenomenon

⁴ Compare to this the remarks on p. 488 of *Husserliana XXIV* (Editor's note).

⁵ And, at the same time, the perceived as such.

of imagining as such (this strange phenomenon in which I have an objectivity in mind in an entirely different way than in perception, not posing as present itself, but just as imagined), I capture by bracketing out all positing of reality with respect to mine and with respect
 5 to the object imagined. I do just the same thing with every feeling, every wish, every judgment.

What kind of science can I do there? I can say: This! And with 221
 the “this”, or “this is”, I can express an absolute positing, a positing devoid of any transcendence. And, my words, or the proposition,
 10 express this purely immanent existing. But, what can be done with that? Surely, next to nothing. The phenomena come and go; that is part of their nature. Objective time, the time of nature and its processes, the time that we measure by the position of the sun and with
 15 chronometers is naturally bracketed out. But, belonging immanently to the phenomenon as such is that it “lasts”, that it “comes”, and after it continues for a “while”, “goes” again, to come to an end. Or, it remains relatively unchanged for a while, then turns into something else, gradually, more or less “rapidly”. Then it changes discontinuously, it comes to an end, something else occurs, etc. Though all
 20 these words, begin and end, last, and change, change more rapidly or more slowly, change discontinuously, etc., may also be robbed of their relationship to objective time, they nonetheless also retain their meaning purely phenomenologically. Looking toward the pure phenomena and meditating upon them in pure seeing, we find something
 25 in them corresponding to the words. They are continuously in flux, continuously coming and going, and a kind of flux lies even in the “lasting”. Over and over, a now phase is there in the appearance of lasting, but the now is already a was, and a new now has stepped in for it. Continuously looking, we follow this flow of the phenomena
 30 in phenomenological or pre-empirical time. So, we can continuously say “this is”. But, over and over, “this” only just signifies the this of the phenomenon seen in its becoming or being phase of the time.

All is fleeting and nothing abides. And, over and over, the “this” is a different this. Therefore, the proposition “this is” is something just
 35 as fleeting as the objectivity that it posits. In seeing, its intention is determined at the time, but nothing of this definiteness is stamped on the communicable, repeatable meaning content. “This” is ultimately everything possible. Everything can be designated that way.

Can we not, however, engage in determination and form determinative concepts, by means of them turn the statement into a determinate repeatable statement self-identical in meaning content? For example, I perceive this red table. Through phenomenological reduction, the being of the table and of the red quality appertaining to it remain bracketed out. But, can we not on evident grounds say red with respect to the phenomenon and the red moment immanently belonging to it? In the table-appearance, we find a red-appearance. We distinguish the *red of the object* that appears, and as it is intended on the object as appertaining to it, from the *red dwelling in the appearance* and take it just as it is given evidently in it.⁶ In the unitary phenomenological given, we can then distinguish, say the coloring as a givenness, the extension as a givenness, the timeframe as a givenness. Likewise, for a high note that we hear, the sound quality, the sound intensity, the timbre as givens in the sense of immanence, and in relation to all that, the timeframe as duration, say, as duration of quality, but fluctuating in intensity, etc.

Now, we already have more. But, we have not gotten rid of indeterminacy. I can now say: This sound phenomenon, this intensity phenomenon, etc., and of each one that it exists. I can say this sound phenomenon has a moment of quality, of intensity, of timbre, this sound phenomenon changes in phenomenological time with respect to intensity, and so on. But, I have not gotten rid of the “this”. The phenomenon is an absolute individuality, and this individuality is conceptually determinable in accordance with the content constituting it, but *as* individuality it is only to be grasped in seeing. If in a consciousness, we have a red and another red, then we can capture the identical conceptual essence red in it, and then conceptually determine and designate one simply as “a red” and again the other as “a red”. But, in individuation, each is different, and the individuation is not discerned and determined by the conceptual determination. In imagination, we can think of a red reproduced arbitrarily. Each is a red, but each is different in terms of its individuation. No determination by a conceptual essence, no determination that leaves its imprint

⁶But, also the objectivity as it appears in the appearance and without its being posited as “reality”. And, there are still various things to say there.

in a general word, identical and objective in its meaning, pins down 223
the individuality.

- What holds for one conceptual determination holds for arbitrarily many taken together into the unity of a complex determination.
- 5 It is evident that, however far the analysis and conceptual grasping of an individual, of an absolute this<ness> of the phenomenological sphere, reaches, something like reproduction is always possible. That means that, with regard to its entire content or material, and with regard to all content moments, the appearance falls under conceptual
- 10 definitions. These express the character of the content moments. But, no matter how exactly they stamp the character, the *recourse to the species*, hence, the determination by universal concepts, *never yields an equivalent of individuality*. More is always thinkable and conceivable that is completely the same, therefore, has the same char-
- 15 acteristic features in every respect. The phenomenon, though, and each moment of its content is absolutely unique, something that can only be shown as a “this”, seen in phenomenological seeing, but not objectified by scientific determination.

- If we leave phenomenological territory behind, if we journey into
- 20 the territory of transcendence, that is of nature, then we fix individualities there by scientific means, for example, positions of stars, or places on earth, geographical determinations of places, and so on. The situation is the same there insofar as there is not any absolute determination of individuality in the realm of nature either. We must
- 25 already have individualities, for example, pregiven individual stars, pregiven places, pregiven times, like historical events, pregiven earth, moon, etc., in order to determine other individuals relative to them. Without an individual system of coordinates, no further individual determination. In the empirical realm, we actually do have such fixed
- 30 points, though—empirical individuals confirmable as being the same over and over again in experience repeated in various ways. They are fixed in the empirical sense, sufficiently fixed to be able to rely upon them. This suffices for geographical, for astronomical, for human-
- practical goals of any kind.

- 35 In the phenomenological sphere, however, we do not have any individuals that stay put, none proving to be phenomenologically identical individuals repeatedly establishing themselves in various 224
ways. It is, therefore, also not possible for us to order and determine

all phenomena relatively in terms of fixed points and axes in keeping with the conception of a system of coordinates. Can we, then, come back again in later acts to what was once immanently given and claim it as the same thing that really was? In so doing, are we not already infringing on the immanence? And, can we even find an immanent was as individually the same a second and third time in new phenomenological perceptions?

A physical object, for example, the earth, is a determinable objectivity in contrast to arbitrarily many perceptions and experiences coming and going that relate to it. Phenomenology, though, deals with purely immanent givens that are individually particular phenomena in phenomenological perception and are over with it. A second perception may have a like phenomenon, but not one to be claimed as being identical.⁷

It is accordingly completely clear that *scientific determinations with respect to phenomena are not to be made after the phenomenological reduction, nota bene, if we want to fix and conceptually determine these phenomena as unique and absolute particulars*. Only when we go into the empirical realm, when we consider the phenomena as experiences of an experiencing I connected with nature, can we perform fixing of the kind that every psychologist performs in experimental procedures.

<(b) Phenomenology as an Investigation Focussed
on the Essence of Phenomena>⁸

Is a phenomenology thereby shown to be not in general focussed and impossible? The answer is no. Descriptively fixing, determining knowledge of a phenomenological “world” of the kind of knowledge

⁷In addition, the viewpoint of communication. Science is an intersubjective unity. What one researcher finds becomes the common property of all. Scientific objects are intersubjective. Subjects are indeed bracketed out in phenomenology, but without its having made use of their existence in the content of its theories, it claims, however, to be science and its knowledge is also to become common property. But how is that possible?

⁸Compare Appendix A XIV (Editor’s note).

we have with respect to “nature” is completely ruled out. But, in the realm of pure intuition and absolute givenness fall *not only the cogitationes as individual existences, as absolute This, as existing, absolute, unique, but also their genera and characteristic features*, about whose immanent possession we already spoke when we pointed out that we certainly cannot fix, but can determine predicatively, phenomenological onetime things. In immanent meditation and Evidenz, we can make *these characteristic features into objectivities in their own right* and investigate their specific connections. In general, as against the individual meditation relating to the onetime This, a general one can be set up that investigates what is related to the essence of the phenomenon⁹ in general, or to the essence of one characteristic feature of content or another in an immanent and pre-empirical way.

So, looking from one phenomenon to another, or one partial phenomenon to another partial phenomenon, in the unity of a consciousness, we can become aware of certain essential common points and in this duality or multiplicity become aware of an identical unity. And, without taking an interest in the existing of this or that absolute phenomenon and its determination as a This, we can practice “abstraction” upon them in which a universal essence becomes an object and immanently given object for us.

I look from red to red, from expanse to expanse, from timeframe to timeframe, and the universal red, expanse, timeframe come to my consciousness. Where only a single red phenomenon¹⁰ is given to me, I can then also acquire the essence intuition. I am not referring to the individual phenomenon, but to coloration, and to this coloration, not as a fleeting This, but as species, as self-identical universal, no matter how the particular thing may be and change. I hear a sound and do not refer to this sound as an absolute individual that indubitably is in the phenomenological perception, but refer to the sound in general as quality in general, its intensity as intensity in general, etc. Yes, I can consider the phenomena as phenomena in

⁹ Essence of the phenomena as act phenomena, but also essence of the objectivities appearing and referred to. Therefore, phenomena in a multiple sense.

¹⁰ All in the multiple sense.

general in the most comprehensive way and, for example, also consider their thisness, individuality in general and, on the other hand, their content in general. That means that it is not the phenomena, the onetime things that are actually given to me as existing that I want now to fix and to describe, but it is about phenomena in general, about colors in general, about sounds in general, about expansion in general, also about judgment in general, about knowledge in general that I want to state something. I want to fix, compare these universals, determine their relationships and their laws. Though the particular phenomena may come and go, though they may flow away in unfixable oneness in the stream of consciousness, *I leave their existence and individual singularity indeterminate*. I pass no judgment on it. The only thing I now want to pass judgment on is the universal. What I want to determine is what is attributable and is not attributable to the phenomena in general and to the immanently graspable universal essence in general.

For example, in the unity of the immanent consciousness we behold phenomena, color phenomena, sound phenomena, thing phenomena, judgment phenomena, etc. We hold on to the actual phenomena, those really given and beheld in an encompassing glance in the unity of consciousness. We capture in it what is universal in the phenomenon in general. We do not form in it any universal encompassing exactly these givens and no others, but these givens as these do not interest us at all. They are but the foundation for the consciousness “phenomenon in general” constituting itself on the basis of them.

We now see with Evidenz that belonging to the essence of this universality “phenomena in general” are, on the one hand, the “This”, the *haecceitas* as it were, the individuality as such and, on the other hand, a content, the one making up the individual. And, this content falls under universal concepts that make up the conceptual essence of the individual independently of the “This”, of the individuality. The fact that, belonging to the essence of every phenomenological concretum in general, of every absolute phenomenon, is the *form of individuality* and a *plurality of conceptual essences* that make up the characteristic features of the individual, is a universal, absolutely indubitable insight to be captured in the realm of pure immanence.

- Likewise, that *time is a form of individuality*, and naturally, I am referring to phenomenological time. Every phenomenon has its temporal extension, each has its temporal phases in it, and belonging to each temporal phase a new This. Each phase that we can discern
- 5 within the unity of the phenomenon's temporal extension yields its own partial individual that in turn is an individual, that again has its form of individuality and its content. As regards its characteristic features, the content can be the same throughout the entire temporal extension, therefore, the same from moment to moment. Indi-
- 10 vidually, it is different. I capture that in the universality of essential laws. The time form essentially belongs to individuality as such. If we take a plurality of concrete phenomena in the unity of a comprehensive consciousness, then the binding time form also belongs to this plurality. I see that for these individual, particular phenom-
- 15 ena precisely *in individuo*, but I also see it generally as something belonging to the essence of the absolute This in general. They necessarily exist at the same time, or follow one another, and that holds both for the whole individuals and for their reciprocally compared temporal phases. Continually in immanent meditation, continually
- 20 gathering general insights in pure Evidenz, we can also consider the time form for its own sake, however, still performing abstraction on purely immanent,¹¹ intuitive ground, and generally study the relationships belonging to time.¹² For example, as a law of essence, we can declare that the earlier-later relation is not reversible. Therefore, if a
- 25 time phase or a point in time *a* is earlier than *b*, then *b* is not earlier than *a*. And, if *b* later than *a*, then *a* earlier than *b*. In addition, the law of transitivity, if *a* earlier than *b*, *b* earlier than *c*, then *a* earlier than *c*. These two laws suffice to characterize the ordering of points in time or temporal phases as something fixed and not returning back
- 30 on itself (cyclical).

¹¹ Immanent in a double sense!

¹² Note: In addition, not to be forgotten also after this grounding of the knowledge of essences in phenomenology is to take into consideration the question of the communicative meaning of its results and the possibility of a phenomenological science as being intersubjective in this respect.

mind, the identity, not of the individual sound, but of the sound's character, of "the" quality *c* and of "the" quality *d* is intuitively conscious to me, then I see, and see generally, that *c* is deeper than *d*, and not higher than *d*. Higher and deeper are mutually self-exclusive for these same qualities. 229

Immanently, we can perceive what is sensorial, immanently imaginatively call to mind what is sensorial. Immanently, we can achieve direct consciousness of time, perceive, so to speak, the just-was, the just-elapsed, and immanently we can call to mind time consciousness in re-remembering. Immanently, we can have the actual carrying out of acts of thinking, and immanently, we can imagine ourselves into acts of thinking and immanently meditate upon them in this imagining.

This immanence of meditation signifies in sensorial fantasy, for example, that we have a phenomenon in which, say, a color is imaginatively in mind. We can then hold this phenomenon up to other phenomena, compare it to them, or differentiate it from them in such a way that, say, the concept fantasy presentation arises in contrast to, say, the concept perception presentation. We can, however, also initiate a concept formation that brings the fantasy color with others, perhaps also imagined or perceived, under a color universal. The fantasy color is not a perceived color. It is not, however, transcendently posited as an existent in nature either. I hold its being in abeyance in every respect. But, I behold it, even if this is by calling it to mind, and take it precisely in the way I behold it. And, on the basis of this, I form the idea color.

Likewise, in re-remembering, I can call to mind a change. Whether the change was can be held in abeyance, but on the basis of the intuitive re-remembering, I can generally make the essence of the change in general sensible to myself. Again, I can immanently appropriate something identical in the variation of determinations and the flow of its changes if I realize an identification within the sphere of pure intuition while excluding the question of existence and actually accompanying acts of determining that let an objectivity appear as something identical in contrast to the intuitively changing determinations. And, I can then fully and completely capture the universal essence of the identifying and determining, and the unity in contrast to the diversity, provided that only everything alleging to be generally

grasped and referred to there really comes to givenness in intuition. 230
 The universal comes to givenness, however, whether the corresponding particular, whose intuition is the basis of the general intuition, is itself given in the form of an immanently given perception or in the form of a fantasy intuition, and whether the identifying, differentiating, determining acts are performed as, so to speak, serious acts in perceptual ascertaining as in perceptual judging or are performed as a thinking-of-oneself-into-the-performing-of-such-acts, as a presenting-to-oneself that one identified, judged in such and such a way, and so on.

<§38. *The Transcendent Object as Theme of Phenomenological Investigation of Essences*>

We see that the possible extent of the investigations that we call phenomenological and are characterized by the exclusion of any positing with respect to transcendence is very much greater than we at first thought. *By that exclusion, we are in no way bound* to the phenomena-individuals to be exhibited as existents *in phenomenological perception* and to the moments constituting them. There is no doing anything scientifically with just that. Rather, scientific-phenomenological investigation is aimed at general essences and laws of essence, and in order to constitute and realize the universalization of essence in pure immanence, phenomenologists look at the actual phenomena just as well as at the phenomena intuitively brought to mind. *And, they look both at the phenomena and at the objectivities appearing in the phenomena or supposed in thought.*

Investigation in accordance with laws of essence properly extends to each and every thing, *therefore, also to everything transcendent. Only we may not engage in any positing with regard to an "existent"*. Instead of judging about the being and not-being of the transcendent thing of the moment, we consider its content as it is immanently "intuitively" given to us and supposed in the phenomenon in question. We can in this way obtain insight into the *essence of what is transcendent in general* or of a transcendent thing with this or that characteristic feature. On the basis of the content immanently called to mind and on the basis of the evident supposition of acts having the

characteristic feature concerned, <we> realize a general intuition that then makes it possible to know and proclaim evident laws of essence. Just as we can obtain certain knowledge of the most universal kind <belonging> to the immanent essence of color, sound quality, intensity, of expanse, of time, of connections between time form and temporal content, and so on, we can also obtain universal knowledge about the essence of identity, unity, plurality, difference, whole and part, particular and species, lowest species and higher genus, and so on, and again about the essence of perception, imaging, imagining, judgment as predication, affirming, negating, etc. In addition, about the essence of the relationships between perception and the object's making itself present, memory and being in the past, expecting and being in the future. Or, between judgment and state of affairs, between the concluding and the having been concluded of state of affairs in state of affairs, etc.

Therefore, it is to be kept in mind from the beginning that not, say, just perception, or some other objectifying act, belongs in the sphere of immanence, *but also in a certain way every object, despite its transcendence*. Of course, we hold the being of the object in abeyance. But, whether it is or is not, and however great our doubt about the meaning of this being may be in the beginning, it is evident that it *belongs to the essence of the perception that it perceives (wahrnimmt) something, an object, and I can then ask what does it take (nimmt) the object for true (wahr) as*. The perception is a supposition that an object is itself present. What is it thereby supposing the object as, in what way is it characterized as standing before the perceiving eye, or is it supposed in the perceptual supposing? Those are questions that we can ask in the same way for a fictional fantasy and answer with Evidenz and, at least within certain limits, with the greatest Evidenz.

If we make believe that there is an angel as black as coal as a Congolese Negro, if it stands before our imagining eyes, then it is a fiction for us. But, it is evident that here an angel is appearing in the form and color of a Negro, and not, say, a hippopotamus, or an Eskimo, or anything else. In an evident way, pursuing the "meaning" of the perception or fantasy, we can describe an object determined in that way that they make present in their way; we can describe what about the object, which sides and which content moments, is really itself captured in the intuition and what is merely co-supposed by mere

suggestion, and what ultimately actually would itself be intuitive, or would be called to mind in new perceptions or imaginings.

In doing so, the intuition of the phenomenological investigation does not aim at what is particular, but at what is universal and essential. Therefore, the analysis of the particular case serves only as the
 5 analysis of an example. We can reflect upon *what the essence of the perception dictates regarding the manner of making the object present*, which possible relationships between perception and the object's actual and supposed givenness, etc. We are, therefore, con-
 10 tinually also concerned with the objectivity, and yet we do not posit it as something existing. Concerning objectivity in general, we do not have any existential-suppositions¹³ whatever, no existential truths, for example, such as those of the natural sciences, no suppositions about actualness, or not being.¹⁴ We operate in the sphere of immanence
 15 just insofar as we exclude all such suppositions and confine our investigation to what is given and supposed in the "phenomenon". And in so doing, the entire investigation is such that it is carried out in intuition, namely, general intuition.

What belongs to the essence of the consciousness, of the *conscious-*
 20 *ness inasmuch as it is the consciousness of a certain objectivity*, and what belongs to the essence of every kind of consciousness, of percep-
 tion consciousness, memory consciousness, judgment consciousness, etc., and to the correlative objectivity *insofar as and as soon as it is conscious in consciousness of this kind*, is investigated in essential uni-
 25 versality, that is *in purely seeing experience*, continually in the sphere of intuition that has <what> it speaks about right in sight and practices actual universalization and seeing of essences on the basis of the actual
 bringing to mind of particular cases, so that every step in the statement 233
 verbally only expresses and neatly conforms to what lies right directly
 30 before the inner eye.

One can also talk about perception and object, about judgment and state of affairs, about the difference between perception and imagination,

¹³No "supposition" in the genuine sense! Namely, these are not realities for us for which it can be asked just what they are in reality (which presupposes a contrast with what is merely appearing). The depiction is, therefore, not entirely to be countenanced and must be nuanced in some other way.

¹⁴Naturally, though, no preconceived ideas in another sense either, none, whether existential or non-existential biases.

- perceived and imagined objectivity, in short, about all pertinent questions, and form theories on the basis of preconceived ideas, on the basis of all sorts of traditions of actual and supposed knowledge that one believes to have obtained oneself, or has taken over from others.
- 5 Such things remain strictly excluded. We are setting out in search of ultimate truth, of what is ultimately given by the senses. On the basis of the vague presentations that we link with the words perception, object, judgment, state of affairs, etc., and of the vague suppositions or views that are psychologically associated with that for us, we may
- 10 converse among ourselves and quarrel with one another, agree with one another again. If, however, we want to have insight and the ultimately attainable knowledge that we need to escape from painful, but thoroughly necessary epistemological skepticism, then we must study the sources of knowledge. We must descend to the matrices
- 15 of knowledge. That means, though, that we must *study the essence of knowledge using the procedure of purely beholding*. Within the indubitable sphere of immanence, we must have perception, fantasy, judgment, etc., directly in our sight and *study the meaning really dwelling in them, the objectivity as it is really showing itself and*
- 20 *really referred to in them, beholding and reflecting on the meaning*, not mindful in so doing of the existence of the fleeting phenomena, but of the essence and laws of essence that open up to us in general intuition on the basis of the actual givenness, whether perceptual or imaginative, of individual cases.

- 25 <§39. *The Independence of the Laws of Essence from Any Positing of Existence and the Only Genuine Sense of the A priori*>

- Now, what kind of laws are these laws of essence? They are laws that *knowledge's ultimately possible understanding of itself* has laid down, that are laid down while all doubtfulness in the sense of skepticism, all transcendence,¹⁵ all positing of I and not I, of thing and nature and human world remained excluded, in question.
- 30

¹⁵Transcendence equals positing of what is not purely self-given.

These laws, this makes the method reliable, do not, therefore, in the least hinge on presuppositions belonging <to> this sphere either. A law that figures as absolute authority, whether I posit that I am or posit that I am not, whether I posit that there are human beings, whales, gods, or not, is something absolutely independent. Of course, I am the one who is now speaking about the law or is now beholding its authority. *But, the law itself says nothing about my existence and does not hinge on my existence.* I have really left this existence in question.

- 10 Every sensory law of essence already makes the meaning of this independence clear. If I make clear to myself what it means for sounds to be higher and deeper, that means I call to mind different sounds in pure intuition and I arrive at the insight that belonging to the essence of the quality of sound is that a^s being higher than b , rules out b^s being higher than a , and that if a is higher than b , which is higher than c , a is higher than c . Then, I have there laws whose validity in pure intuition is absolutely certain and indubitable. Sounds for which that did not hold would just not be sounds. The laws speak of sounds as sounds in the intuitively seen and captured sense. I can naturally use the word sound as a designation for something else, for colors, trees, apes, but it is not a matter of words and arbitrary meanings that may append to them. It is a matter of the universal that is there before our eyes as sound. And, if I capture the meaning, then I see this law's being valid as something irrevocably belonging to the sound's identical meaning. I am of course the one who sees and says that. But, the law says nothing about me and does not presuppose my existence, is not asserted and based upon any hypothesizing of that existence. The law does not belong, say perhaps, to me as a specimen of the species *homo*, *animal*, and so on, but belongs to sounds as such and to nothing else.

- And, tied in with this is the Evidenz: If sounds are, if they exist as individuals, in whatever manner, in whatever connection, then these individually existing sounds cannot deviate from that without which sounds would just no longer be sounds. If I, therefore, have a right to empirical judgments, I have a right to assume nature, or to assume a heaven with angels, and to consider the thoughts of possible living beings other than natural ones, then I can say that wherever living beings, beings with minds, may be found, whether on earth or in

heaven, whether in empirical reality or in a make-believe, possible reality, they can only judge correctly if they judge sounds the way I judge. Sounds cannot occur to them that do not exhibit that without which sounds would just not be sounds.

- 5 What holds for these trivial laws of sounds holds for all laws of essences. They are all *a priori*. And, here is the only genuine sense of *a priori*. *A priori* is everything grounded in pure essence. Epistemologists can, therefore, claim as *a priori*, namely as directly *a priori*, for that is primary, every general law adequately given in
 10 general, immanent intuition. *A priori* is not what is certain to me prior to experience, for example, through divine inspiration, or what is certain to me prior to experience through psychological mechanisms of heredity, but what generally is certain to me while I question all experience and all transcendent assumptions, and is certain to me,
 15 not because it incidentally strikes me as that, but rather *because in pure beholding I see the state of affairs as irrevocably grounded in the immanent essence of the concepts concerned*.

- I must in so doing have in view the conceptual essences, directly behold and grasp them. I may not make assertions about them on the
 20 basis of confused presentations, for example, on the basis of merely unintuitive or partially unintuitive meanings of words. In that way, I cannot determine any essence and law of essence. In that way, a general, purely conceptual statement can never prove with indubitable validity to be an expression of an *a priori* relation of essence.

- 25 If someone declares that the Law of Contradiction, of two contradictory propositions one is true and the other false, is *a priori* in the genuine sense, is absolutely and unconditionally valid as grounded in the essence of proposition and truth, the understanding of that proposition that I ordinarily have is not enough to prove that. It is a
 30 confused, merely symbolic understanding. We must go back to the original sources of clarity and essentiality, where proposition, truth, falsehood, contradiction, and thus all concepts and conceptual relations concerned here, stand before our eyes in authentic, intuitive
 35 givenness, and we can behold in general ways that this circumstance is grounded in the essence given as a given and inseparable from it. If I have seen that, then I am in possession of an absolute truth, of a truth that is grounded purely in itself and is not amenable to any relativization to I and world and any contingent sphere of individuality. 236

<§40. *The Ideal of Absolute Rationality and Its Attainability*
by *Way of Phenomenology*>

All principles in the strict, genuine sense belong in this sphere, in the first place, all principles of knowledge that belonging to the essence of knowledge as such owing to their different characteristic features have universal, science-theoretical significance.

- 5 They present the principles to which the individual steps of all knowledge of nature, as well as mathematical knowledge, are subject. Each simple step in reasoning must be able to display its
- 10 justification, whether in terms of formal logic, or noetically. By the essence legitimated relationship between necessity and being law bound, since it lays claim to being necessary, each such step is a particular instance of a law, and to being directly necessary, a particular instance of a directly valid law. This is the principle
- 15 both for this step and for every one of essentially the same nature. The procedure is, therefore, perspicuous and justified on ultimate grounds when the principle proper to each step is to be set forth and seen as a law of essence in immanent intuition. Just as the steps of deductive or intuitive reasoning, the ontological concepts and
- 20 propositions that collectively form the basis of all knowledge of reality are to be traced back to their ultimate sources. They must be set forth in accordance with their ultimate meaning and as given through laws of essence.

- The same thing again holds of the principles of ethics, of pure
- 25 practice, of the principles of all axiological disciplines to the extent that they have been established up until now, or are yet to be established. These principles naturally do not occur in such disciplines as systematic principles in action, governing their steps in reasoning—the logical principles naturally act as systematic principles in these, as
- 30 in all disciplines—but rather as axiomatic main premises to be 237 formulated explicitly in a rigorous grounding of these disciplines. The specific principles of knowledge stand in the same relation to all steps of knowledge, and governing them, but without intervening as formulated main premises, as the principles of value and value
- 35 norms stand to the steps of rational praxis, to the steps of ethically evaluating and deciding, to all actual rational activities in the realm of the mind and will.

All reason in the a posteriori has its principles a priori, and these principles are the grounds of justification of the objective, unconditional validity that every operation of so-called reason claims in both the theoretical and axiological spheres. Bringing principles to light everywhere and testing their authenticity, solving transcendental problems regarding them, therefore tracing them back to their phenomenological origin and meaning, showing them in the realm of intuitive essences to be the authentic matrix of knowledge as givens of seeing reason, or rejecting them as absurdities, that is the true philosophical task.

- 10 For all science and all rational life in feeling and acting where values are valued, it is worth forsaking the naive standpoint of simply instinctive or unreflected self-assurance and purifying oneself in the purgatory of doubt and confusion to rise to the state of highest, ultimate consciousness and self-understanding, the state of full, reflective clarity in which,
- 15 not all practical problems, but all problems of principle find their solution because all the sources of reason are laid bare and lit with insight.

- For human beings, as for all beings rational about knowledge, valuing, and action, the absolute ideal obviously lies in purely pursuing the autonomy of reason in all their living and striving, and pursuing it
- 20 consciously, i.e., ever lucid about its demands, certain with the most limpid clarity. In the idea of God as an absolutely perfect intelligent being, we think of this ideal as realized: God knows nothing without being perspicaciously certain of the fundamental soundness of the knowledge on grounds of principle and being so with absolute clarity.
- 25 God does not judge anything, God does not want anything without this very clarity and absolute perspicacity with respect to the principles that <govern> valuing and wanting respectively. What completes this ideal of absolute rationality is omniscience, omnipotence, 238 and infinite goodness. That means that absolute rationality would
- 30 be conceivable in the sense that the principle could be shown and would be perspicuously certain for any knowledge attained, while, on the other hand, the sphere of knowledge would be a very limited one. In God, people, however, also think of the ideal of extensively all-embracing, limitlessly sovereign knowledge. And, likewise with respect to the other spheres of reason.¹⁶

¹⁶The ideal of Evidenz—is it the ideal of the phenomenological clarification of sources?

However, the main thing here is not to examine this ideal, but only to make clear the essence of the absolutely grounded knowledge that we call philosophical and its higher status in comparison to all other, merely natural, knowledge. It is a matter of completely elucidating the fact that, albeit in a limited sphere, absolute knowledge is attainable and the critique of reason¹⁷ is practicable. It is practicable through phenomenology, by means of what we call the *phenomenological method*.

- People have maintained over and over and denied over and over that there was any *specifically philosophical method*. In the days that psychologism held sway, which represented a reaction against philosophy's overstepping of its bounds in the days of German Idealism, it was a commonplace, and we can still hear it proclaimed often enough today, that all rigorous science in essence had the same method and that philosophy's claim to a special method distinct from those of all the remaining sciences had to be dismissed as arrogance lacking any legitimate foundation. I need not say that the great successes of the exact sciences and the hope of philosophers to be able to equal them, even in exactness, by adhering to the same method have fostered this preposterous view. It is due to a clear lack of understanding of what is specific to philosophy in contrast to natural knowledge and science. We do not find the method of phenomenological reduction and the tracing back of concepts grounded in principles and the principles themselves *to the sphere of pure immanence and intuition eliminating all transcendental assumptions* in any science and cannot find them in any science because the goals and methods of the natural sciences are just different from the goals and methods of philosophy. Of course, those who consider *phenomenological source and psychological source, phenomenological intuition and inner perception, phenomenological generalization and empirical formation of concepts, phenomenological analysis and psychological analysis* to be the same will judge the method to be psychological. But, in so doing, they will also become entangled in the absurdity of psychologistic theory of knowledge, the clear consequence of which would be skepticism.

¹⁷ Are critique of reason and ideal of absolute knowledge to be placed on the same footing?

- On the basis of the analyses realized, you now understand the decisive significance that the position taken in disputes about the psychological and phenomenological grounding of the theory of knowledge, and more generally the critique of reason, possesses for the possibility of a critique of reason and, thereby, consequently, for the possibility of a philosophy in general. Only to those who remain stuck in half-measures and unclarity can the consequences remain concealed here, consequences from which there is no escaping. If we choose psychologism, then we choose the relativism and skepticism that are invalidated by absurdity. If we see that though, if we are consistent and honest, then only one thing remains left: abandonment of all critique of reason and confession of despair about being able to come to any understanding of reason's meaning and claim to legitimacy in any theoretical or axiological, practical sphere, about being able, as it were, *to bring reason to reason*.
- Now, we certainly do not need to be philosophers. We can live and die, we can make practical and esthetic value judgments, we can do scientific research, we can make discoveries in the natural sciences, psychology, philology, and rejoice about such discoveries without philosophy. If we want philosophy, though, and we cling to the rational presumption that every rationally posed question admits of a coherent, rational answer, then we cannot be psychologists. Then, for us psychologism can only be the sign that we are caught in the snare of confused preconceptions and absurd posing of problems. If, though, we have ever once sighted the meaning of the epistemological reduction and phenomenology's field of activity, then this assumption is confirmed and, step by step, we learn to understand the confusions between the layers of the problems and position-takings of natural and of philosophical knowledge. And not simply that, we find ourselves in possession of the true and only possible method for reasonably making reason itself the object of investigation and for being able to clarify its essence.

<§41. *The Meaning of Phenomenology for the A priori Disciplines and Psychology*>

- Only one thing finally remains left: a few words to close the meditations on the *proper relationship of phenomenology to the a priori sciences, on the one hand, and to psychology, on the other*. Regarding

the latter, it is particularly a matter of showing that every phenomenological finding <can> claim direct significance for psychology and, through change of previous indications, be in a manner of speaking transformed into an authentically psychological finding.¹⁸

- 5 Phenomenology is scientific investigation, namely, the purely seeing and clarifying investigation of the *a priori*, of each and every *a priori*: both the categorial and the material *a priori*. Hence, the investigation of all categories—transcendental investigation! Investigation of the ultimate “sources” of the “possibility” of all validity on
 10 grounds of principle of the noological, the axiological, the practical categories, and of the pertinent laws of essence, in addition, also the investigation of the material *a priori* in general, for example, of the *a priori* of perceptibility as color or sound, and so on, with all its particularities given in pure intuition. From this primitive phenom-
 15 enological ground spring the axioms of all *a priori* disciplines. We do not consider the deductive unfolding of these disciplines out of the axioms to be to phenomenology because the theories overstep the sphere of direct intuition. Naturally, one could also form the idea of a science of the *a priori* that embraces all *a priori* theories and
 20 disciplines. *The entirety of all a priori theoretical disciplines then* 241 *acquires unity with respect to the common matrix of phenomenology*, in which all axioms of these disciplines originate and experience their ultimate clarification.¹⁹

- As concerns the relationship between *phenomenology and psychol-*
 25 *ogy*, every phenomenologically grasped law of essence expresses general facts concerning psychology. If the law says something about the essence of judgment in general, about will in general, about color in general, etc., in short, about consciousness in general and content of consciousness in general, in universality bound by essential laws or
 30 *a priori*, then that naturally also concerns psychologists, who deal with the empirical consciousness of human or animal experiences of presenting, judging, willing, the sensing of color and sound, etc. Naturally,

¹⁸There, I am probably only thinking about the phansiological.

¹⁹Not merely going back to Evidenz, but in reflection transcendently investigating what is given and raising the essence of the ultimate correlations, of the ultimate sources, up to thinking-seeing consciousness.

the science of the inner nature of human beings and of mental events in the world cannot in general do without knowledge that is enclosed *a priori* within the “essence” of these events independently of nature and factuality. If, therefore, psychologists apply these laws to their empirical facts about human and animal consciousness, the latter then acquire empirico-psychological meaning.²⁰ The same obviously holds of all derived *a priori* laws, for example, of all the mathematical laws.

Whomsoever it pleases may, then, call all of phenomenology, and all of mathematics, and every *a priori* science, psychology, a term that would not, though, eradicate the radical differences between the *a priori* and the *a posteriori*, any more than the need for a psychology as a natural science of the experiences of individuals with minds. It is also clear that the apparent psychologization of the physical natural sciences is on the same track, since all existential connections point back to a “consciousness” in which they are, or can be, constituted phenomenologically. If in so doing, though, consciousness stops being human or some other empirical consciousness, then the word loses all psychological meaning, and people are ultimately led back to an absolute that is neither physical nor mental being in the sense of the natural sciences. In phenomenological meditation, however, i.e., everywhere the field of givenness. One just has to break with the supposedly so obvious idea stemming from natural thinking that everything given is either physical or mental.

²⁰The matter is not that simple. Namely, it is only that simple in the phenomenology of “experiences”, not, however, in the phenomenology of objectivity and of the “constitution of objectivity”, although psychologically relevant knowledge also lies hidden in there, indeed absolutely so. That, though, would require more careful examination, would presuppose, though, an exposition of the major problem of “constitution”.

<Part III

THE FORMS OF OBJECTIFICATION>

THE LOWER FORMS OF OBJECTIFICATION>¹<§42. *Concepts of Consciousness*>

<(a) Consciousness as Experience>

5 The question of background also interests us here with respect to the kind of consciousness of the experiential moments of perception itself. One hard question is to decide *in which way the sensations are conscious in perception* and in which way, on the other hand, the *character of the apprehending of the perception is*.

10 Perception is, psychologically speaking, the experience we have when, for example, we see a tree, “for, before our eyes stands the tree” with definitely appearing sides. We do not see the sensations. Our perceiving attention, believing, our apperceptive objectifying are not directed towards them. And yet they are “conscious”. *What*
 15 *does “conscious” mean here, if not perceived?*²

They do not belong to the objective background, for that is a thing background. The house has its spatial environment. It stands amid such and such things. The sensations are not things in the background. It is
 20 evident, however, that from the simple turning toward the house, a different turning, a “reflection” upon the perception and its content, is possible. It is evident that this possibility belongs to the essence of the perception. But, reflection is, nevertheless, perception that is related to the perception and to its content. We know how this content is given in reflective perception. It is given there as perceived. How, though, is
 25 the content of the perception, for example, its sensation content, given before the reflection, how is it “on hand” in it?

If we compare the interpreting acts of reflection with so-called naive perception, then we shall perhaps say: Naively perceiving and

¹The part of the lecture about the lower forms of objectifying could not be located in entirety in the *Nachlass*, see *Hua XXIV*, p. XLIf. and “Textkritischen Anmerkungen”, p. 490 (Editor’s note).

²And, by what right do we in general come to accept naive, and not merely seen, perceptions for that?

- then reflecting on the consciousness of perception and analyzing it (also with the help of one comparison or another), in the reflection and analysis, we discover a consciousness that has changed in comparison with the original one. The naive perceiving is over, but it figures
- 5 in the unity of the phenomenological consciousness in the form of something that just was with, up to which comes the transition to the new reflective consciousness with its analysis and explanation. In comparison, it is evident that the former really possessed “in implicit form” the moments that the analysis laid out and that all of naive perception
- 10 with these moments was “conscious”, had a being (*Sein*) that did not have the <quality> of something perceived, not the quality of givenness of an object of perception. We call that existence (*Dasein*) of consciousness, that being (*Sein*) that only in reflective consideration and analysis, after it just was, is to be transformed into a given
- 15 and with that confirmed, the being of “mere” or pre-phenomenal experience. All of naive perception and all components in it (like the material of sensation, the attending, the apperceiving) are experienced, i.e., merely experienced. In the case of an adequate perception, i.e., of one related to the streaming of contents there in the flow
- 20 of actual phenomenological time, the perceived objects are at the same time experiences. The flowing sensations are experienced, but not merely experienced, but known too, i.e., here, perceived, therefore, given in a perceptual phenomenon, beheld as objects. This very beholding, though, is again only experienced pre-phenomenally.
- 25 *The psychological concept of experience* and in this sense of consciousness attaches on to the empirical individual who experiences, 245 and all individuals have their experiences that are real facts in them and have their place in the real world, in real time, as real information about the temporally existing things that we call individuals.
- 30 It is to be noted besides that every phenomenon of human consciousness, every mental phenomenon has its extension in time. For example, if I, this empirical I, have a perception, then this perception has its empirical duration, and every phase of this duration is itself my experience in the same sense as every other phase and as the
- 35 whole perception. However, what is objectified in perception as a thing, the unit that runs through the phases as a unit of duration and change, does not count as an experience in the psychological sense.
- If now we exclude what we as phenomenologists must exclude, then the positive experiences lose empirical objectification and

empirical realization. Starting with the actual having of any experience whatever, say of a perception, and the actual carrying out of reflection, we behold the essence of the perception phenomenologically. We find it to be something having temporal extension, find one or another of
 5 its moments in beholding analysis, but, looking back in the unity of some memory consciousness uniting with the analyzing consciousness, also find the just was and still lively naive perceiving, the perceiving prior to reflection, prior to the phenomenological attitude, that made it into an object. And, we find the same thing in each case of phenom-
 10 enological meditation and analysis, in the phenomenological attitude toward a judgment, or wish, etc.

We now engage in an analysis of essence and in this way constitute the *concept of experience pertaining to every datum or dabile extended in phenomenological temporality*. And, we constitute the
 15 concept of the mere experience as that of the primitive consciousness in which the *datum* has not yet become objective, yet exists, in which it has, and with Evidenz must have, its pre-phenomenal being. And, with Evidenz, in the unity of the consciousness proceeding from phenomenon to phenomenon and looking back, we
 20 understand that everything pre-phenomenal and phenomenized by reflection and analysis, transformed into a given, has its temporal flow and is ordered in the unity of a temporal flow, and that temporality of extension irrevocably belongs to the essence of both pre-phenomenal being and of givenness, so that the concept of the
 25 experience actually concerns both, on the one hand, the immanent object of an adequate perception looking upon a temporal flow and its real (*reelen*) constituents, and on the other hand, absolute being (*Sein*) not objectified by an adequate perceptual apprehension, all pre-phenomenal being, being that is, but is not perceived. 246

30 Absolute consciousness is a stream of time, and acts of immanent perceiving are constituted in it that circumscribe the individual moments and parts belonging to absolute consciousness itself and transform them into givens. And, acts also occur in it that circumscribe individual parts of the stream, but do not make them, the ones
 35 experienced, into givens, but rather, in the form of transient apprehensions, see through them, and in an analogous or significative way, constitute givens not experienced as presumed givens.

The sensory material of external perception sets itself off from the collective consciousness of mere experience, but is not set off

- by adequate seeing. We first see it in beholding reflection and see it as something circumscribed. The unity of the apperception animating this sensory material and creating the transcending consciousness of an existing house, and above all the accompanying unity of the attentive referring, give the sensory material a special unity within experiential unity in general, as this apperceiving and attentiveness themselves are something apart. But, the house is seen and referred to and presumably given in seeing, and it is eyed outside of full objectivity, whose intentional creation is achieved by the overall perception, of which the perception of the house is only a part.

<(b) Consciousness as Intentional Consciousness>

- Consciousness as experience encompassing the pre-phenomenal unity of all interfused and interconnecting experiences in general comprises the first concept of consciousness. A concept that is basically essentially different from it is the concept of the intentional consciousness, i.e., that constituting itself in and with apperceptions to which the idea of attentiveness first essentially belongs. Consciousness in this sense is consciousness of an object. In the case of consciousness in the first sense, consciousness means much the same as being an experience. We can, of course, speak of experiencing and what is experienced, but “experiencing” does not then mean having-an-objectivity and “referring” to the objectivity in one way or another, and taking a position toward it in one way or another, etc., but, it means the unity of all phenomenological findings and possibly what has been found in connection with phenomenological time. Belonging there, therefore, is every sort of being that we capture in the comprehensive capturing of fleeting experience as pre-objective, not objective in nature and first comes to objectivity and givenness via perception. In this universal nature, out of a vague, completely unbounded flow having this nature through and through, particulars are to be demarcated and seized in reflection. But then reflection first makes them into objects.

- On the other hand, it is the essential nature of consciousness in the second sense to be an experience, not only to be experienced, however, but to “have” an object in itself, whether seeing it adequately, having it

- given in another way, or referring to it transcendingly. Every experience that has the distinctive quality of intentionality, namely the quality of being-conscious-of-an-objectivity, of being-directed-toward-it, we call an intentional experience or consciousness in the second sense. Now and
- 5 then, people have contrasted consciousness and knownness, albeit without closer analysis that might somehow be appropriate for the situation, apparently with a correct sense of the difference. Nevertheless, “known” is a word that only goes with knowing, and there are quite a number of intentional experiences that are not knowing.
- 10 Intentional experiences are not merely perceptions and also imaginings, memories, and in addition, judgments, presumptions, etc., but also questions, doubt, refraining from judgment, also desires, yearnings, wishes. Likewise, joys, experiences of sorrow, of hope, of fear, etc. Joy is joy about something, fear, fear of something. A desire
- 15 desires something, etc. Therefore, for example, a desire is directed toward an object of desire, joy toward an object of joy. Joy is not an experience for its own sake and, on the other hand, is not an object in itself apart from joy, and having nothing to do with it, but, the experience of joy in itself has a moment owing to which it refers to one
- 20 object or another, to one state of affairs or another. In and with joy, 248 an inner gaze must, as it were, make the object conscious, whether an intuiting of the perception or imagination brings the object to mind, or significative referring directs itself towards it, or any thinking that it grasps thinkingly. In immanent analysis, the “object”, the joyful or
- 25 desired state of affairs is, naturally, not something for its own sake, and the being-directed-toward-it a second thing added on to it. Rather, we have just one thing. Just as in perception, the perceptual apperception and the heeding or observing reference residing in it make up the having-objectively (the phenomenon of an object of one kind
- 30 or another figuring before the perceiving glance), so, lying in every act is also some apperception with which the figuring-before-the-inner-gaze, or the being-directed-toward-it, is constituted. So it is in joy, in desire, etc. An apperception underlies it and is not something apart from the wish, but something interfused with it—is so, though,
- 35 in such a way that the wish itself, the wish-*intentio*, is then directed toward the apperceived object. So it is everywhere. Usually, in a more or less complicated way. I rejoice, say, over an object standing before me in perception. The perceptual apperception constitutes the “itself

- there” of the object as something presumably given. The perceptual belief posits what is appearing as reality. It is a belief intention that is aimed at what is appearing, therefore, is not apart from the perceptual apperception, but through it refers to the appearing object throughout. Upon it, the joy intention is again based. Joyfulness is not apart from all that, but is directed toward the object perceptively appearing and believed, therefore, figuring as a reality. Joy can, however, also be joy about a fact lying outside of our perception, say, on account of receiving and believing news about the occurrence of an event, say, the outcome of an election. Then, we have the phenomenon of the statement that, in its way, apperceptively constitutes reference to a fact with belief intention, and running through it is the joy intention, the joy about precisely this fact.³

- Not all experiences are intentional experiences.* Color content may be a representative in a perception, therefore, in an intentional experience, but it is not itself any such experience. It is the bearer of a consciousness, but not itself consciousness—consciousness in the present sense. 249

<(c) Consciousness as Position-taking, as Act, and Consciousness
as Attentional Consciousness>

- The analyses of examples we have just undertaken point to a third sense of consciousness. Namely, one can accordingly say that belief, wish, joy, will, etc. are, as it were, “position-takings” toward an objectivity otherwise held out to them. Roughly, first the relationship to objectivity is constituted and, then, on the basis of it, a position-taking, an *intentio* in the concise sense, which is directed toward the constituted objectivity. For example, lowermost is a perceptual apperception in which we live attentively. Added to that is the position-taking moment of belief that is directed toward the appearing objectivity, and further on the joy, and so on. We also call such position-takings, acts.⁴ Accordingly, we can say that each act requires a

³Narrower concept of intentional consciousness, knowing, knownness. Narrowest concept: perception, just perhaps “inner” consciousness equaling becoming aware.

⁴Naturally, the “first (and then)” not to be taken in the contingent sense, but in the sense of Aristotle’s *πρότερον*.

“presentation” as foundation, an objectifying apperception that originally makes its objectivity “presentational” to it, brings it to consciousness.⁵ *Consciousness of an object must be there so that the position-taking finds something towards which it can take a position.*

- 5 A position-taking without founding objectification, and apperception to begin with, is unthinkable. Accordingly, a new concept of consciousness results in the sense of the discourse just employed about “object consciousness” as presupposition of any act. However, various distinctions are to be made here.⁶

- 10 With perception, we speak of apperception, in which the sensations acquire a representative function and constitute an objective appearance, and of the attention that is directed towards what is appearing, is turned towards it, whether primarily or secondarily. If we are primarily turned towards something else, a glance towards
 15 what is perceived can, nevertheless, still obtain secondarily besides. To be kept in mind here above all is that, even if we are primarily directed toward an object, say a perceptually appearing house, this directedness is not to be confused with the directedness of a position-taking, of an act as such. *Attention is not a quality of an act.* An act
 20 can be founded on the basis of an apperceiving and on <that of> paying attention to the apperceived object, but it itself as position-taking is not a paying of attention. And, likewise, vice versa, paying attention is not a position-taking in the sense of an act. *Attention is not intention.* They are plainly two moments that vary independently
 25 of one another. Perception: perception of foreground, perception of background, primarily and secondarily perceived.

- With respect to attention, determining how far its modifications reach is a problem. We easily distinguish the primary looking toward, preferentially-noticing-something-apperceived, and the
 30 including-too-besides as modifications of a kind essentially belonging together, as modifications of attention in the same sense, still notice this, but do not heed it primarily in the strict sense. And also, the positive picking out and the, as it were, negative rejecting,

⁵Act characters, if we merely <take> the moment of the position-taking—act inclusive position-taking>.

⁶Appearance and attentiveness reigning within it can come under consideration.

not-accepting-with. We recognize such modes of attention in the broadest sense as modifications of one and the same thing.

- A totally vague background, though, creates a problem. However vague it may be, though, it is an objective background, it is therefore constituted apperceptively, and the apperception includes various apperceptions corresponding to the individual objects and individual groups, inasmuch as they are co-presented in the background in "vague" ways. The question is, though, whether a moment of attention corresponds to every apperception. Or, is the background conscious in the experiencing of an apperceptive unity and flowing away, from which those apperceptions emerge that are borne by attention as preferring function, whose objects are, so to speak, drawn out by the hold of attention through which, say (we leave in abeyance whether necessarily), by the nature of this hold, an objectivity (or, apperception) enters into the focal point of attentiveness, and the others merely noticed with it, are secondarily conscious. Is total inattention, as it occurs in relation to vague backgrounds, itself a mode of attention? Naturally, one may not let oneself be deceived by the ambiguity of the word attention, in which, in the strict sense, what is especially heeded is said to be paid attention to. Without being able to decide with complete certainty, I am inclined to answer the question as follows:

- First, to be taken into consideration is the fact that when we speak of the objective background as a whole, to be excluded is what every objectification lacks pre-phenomenally and only obtains in reflection. If we restrict ourselves to the perceptual environment, then it is possible that not all sensations of all sensory fields are fixed in position in apperceptions, but that only fragments from the sensory fields really act as representatives in perceptual apperceptions. That is surely scarcely to be decided in a purely phenomenological manner. It is a possibility in any case.

- Second, if we now take the really apperceptively constituted, really appearing background, then I consider it to probable that a modal determination of attention really belongs to every apperception as such. In any case, though, the attention that marks out and picks out by making stand out is also then to be distinguished from a consciousness of a background.

With that, we therefore have in attention a new concept of consciousness and, indeed, in the attention that holds sway in and with an

apperception. One and the same apperception can, ideally speaking, be an experience in different attentional forms, in the form of consciousness of primary or secondary attention, etc., among them also, in the form of “inattention”, of “unconsciousness”, whereby unconsciousness is no mere privation, but itself a quality of consciousness. We see, therefore, that there is a broader and a narrower concept of consciousness as attentional consciousness. In the narrower sense, consciousness is apperception in the mode of preferential attention. Consciousness is consciousness of an object, i.e., looking-at-it. In the broader sense, it is beholding-it-besides, seeing in the sense of heeding. Unconscious is what is unheeded. In the broader sense, though, what is unheeded is also, insofar as it is in general objectified, given in an attentional form, precisely that of inattention.

Therefore, apperceptions and acts have, we say, one attentional form or another. And, they are always equipped with some attentional form. With it, they are the necessary foundation for one position-taking (or “act”) or another. To be noted is, though, that consciousness as attentional beholding and even looking-especially-at, immersing-oneself-into-what-was-beheld is surely to be distinguished from the intentional consciousness of perceiving. Perceiving in the normal sense is not merely beholding what is appearing as heeding-it, but taking a position in believing at the same time.

A question that is not easy is that as to how a full, concrete apperception, therefore, the attentional form included, relates to acts with respect to their independence. I am now inclined to accept that, on the one hand, acts are totally, without a doubt, inconceivable without attentional consciousness and apperception as foundation, but that the reverse does not hold. Pure beholding is possible and can also be shown without any position-taking, a merely attentional beholding, without any intention.⁷

Finally, yet another thing is of importance. In the intricate complexity of background apperceptions, there is an objective background, whether given perceptually, or in some other way conscious. *Confusing consciousness of the objective background and consciousness in the sense of having-been-experienced is not permitted.* Experiences

⁷Must not at least a “modification” be given? Of course, not always an actual position-taking. But, at least an “imagination”.

as such have their being, but they are not objects of apperceptions (we would really otherwise come to an infinite regression). The background, though, is objective for us. It is so because of the complex of apperceptive experiences that, as it were, constitute it. These objects
 5 are unheeded, unconscious in the third sense, but something totally different for us than mere experiences, for example, than the apperceptions and act experiences themselves objectifying them. (The merely-having-been-experienced, we can also say, is not a merely-being-unnoticed or being-unconscious in the sense of the object
 10 background's being-unnoticed). The attentional consciousness of the background and consciousness as mere having-been-experienced is to be kept completely separate. Let us now go back to the analysis of perception.

<§43. *Time Consciousness and Constitution of Time*>

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15 <(a) Objective and Phenomenological Temporality. The Task of Phenomenological Analysis of Time>

Among cognitive phenomena of the lowest layer that we have dealt with up until now, the perceptions, imaginary presentations, pictorial presentations, but also symbolic presentations, and empty intentions, that
 20 despite our original focusing on intuitive acts we could not avoid, over and over, we face a difference that we must once expressly stress, namely the difference between *simple and composite presentations (apperceptions)*, whereby composite ones are not arbitrary combinations of presentations, but combinations in which unity of
 25 the presentation, unity of the objectification, prevails, therefore, constituting an object, but constituting it by means of more or less complicated partial presentations, which for their part, as presentations, are in turn objectifications, in turn constitute their objects. Thus, for example, the perception of the objectivity surrounding us is a unitary
 30 perception, but corresponding to each object is a part of the perception that itself is a perception in which precisely this object of the presently appearing environment is constituted.

Another difference that must be stressed is that *between direct presentations and higher-level presentations*, namely, presentations

not constituting their objects by means of other presentations in such a way as to include their objects too and yet presupposing them as a basis. Here, there are, in general, different modes of constitution of presentations on the basis of other presentations, thus, for example, higher-level fantasies, also higher-level pictorial presentations, like, for example, the pretty pictures by Teniers in picture galleries, where the painted pictures also have their fictions and subjects, but in the picture, therefore, in the corresponding modified apperception, which is a higher-level apperception. Likewise, an imaginary presentation of just this picture, which again pushes the whole thing into the world of imagination, therefore, creates a fresh modification by building higher, etc. The possibility of the iteration of imaginary and pictorial modifications and their combination, or superposition, are clearly grounded in the essence of the apperceptions concerned.

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Nevertheless, it is more important for us to supplement our reflections about the lower-level presentational experiences that of course lie prior to authentic thinking. Up until now, we have not spoken about *memory and expectation* and not devoted any further analysis to the question as to how temporality is constituted, which, however, belongs to the primitive essence of consciousness and to the essence of each individual objectivity, but have only touched on it fleetingly. Time consciousness, and memory, and expectation along with it, lie hidden in each of the acts, or apperceptions, dealt with up to now. In the first place, perception is perception of an object, and if we take perception in the usual sense, then it refers to an individual, real (*reales*) being to be grasped as itself present. This being has its place in time, it has a temporal now, and it lasts or changes. And in that, time is divided in multiple ways. Not only the object, which in external perception is transcendental in the phenomenological sense, appears in time and has its temporal extension, its temporal mode as duration or change. Rather, we also find temporality in the sensation. The representatives of perception have their temporal flow, and to this flow belong units in time, phenomenological time, in this case. The representing color sensation in the appearance of an unaltered, and unalterably appearing, house figures, when we look at it, as enduringly this same color, and with the changing of the appearance, it may appear as something changing. And, the same thing in turn holds of perceptions and the moment of attention as does of

position-takings, however they are added. This is evident, for it obviously belongs to the essence of the situation that the perception of a temporal object itself has temporality, that perception of duration itself presupposes duration of perception, that perception of an arbitrary timeframe itself has its timeframe. If we leave all transcendence
 5 aside, then, remaining to perception as regards all its phenomenological constituents is its phenomenological temporality, which belongs to its ineradicable essence. Since objective temporality is at times phenomenologically constituted and only owing to this constitution
 10 figures phenomenally for us as objectivity, or moment of an objectivity, then here the task of the phenomenological analysis of time 255 is, therefore, *to pursue and analytically elucidate the constitution of time in perception first of all.*

This analysis is one of the most difficult problems posed to human
 15 sagacity. Full of despair, Saint Augustine, who saw and pondered these difficulties for the first time, complained: *Si nemo a me quaeret, scio, si quaerenti explicare velim, nescio.* I can only give some rough indications here. Before I delve into the matter, I still just want to bring to a close the thought raised that the temporal moment lies hidden
 20 in all objectifying acts in a way similar to perception.

Naturally, in imagination, in simulating an object or process, we once again have time. The object viewed imaginatively has its duration, change, etc., as an appearance. And, precisely the same holds of phenomenological moments. Illusions have their extension in the
 25 flow of temporality simulated here, and unity is constituted in this flow. Furthermore, imaginary apprehending passes itself off as calling to mind modifications of perceptual apprehending and, therefore, has its modified temporality, etc. in the form of being called to mind. And, the same thing naturally holds of apprehending images. How-
 30 ever, it is not necessary to pursue this further. Let us simply consider temporal objects.

<(b) The Difference Between Imaginative Consciousness and Primary Memory>

By temporal objects in the special sense, we understand objects
 35 that are not only units in time, but also contain temporal extension within

themselves. If a sound rings out, then my objectifying apprehension can make the sound lasting and ringing out there into an object, and yet not the duration of the sound, nor the sound in its duration and together with its duration. The latter is a temporal object. Likewise for a melody,
 5 every change, but also any continuing in its concrete form.

Let us take the example of a melody, or a continuous bit of a melody. The matter is so familiar and seems so simple that one does not expect many problems here. Yet, it is not at all that simple. In truth, it harbors quite a variety of complications. We are used to saying: We hear
 10 the melody. Therefore, we perceive it. Hearing is truly perceiving. However, the first sound rings out, then comes the second, then the third, etc. Must we not really say: I hear the first sound, namely, when I really hear it? And, when the second sound rings out: I hear the second, the first I do not hear, I heard it, etc.? Therefore, I do not in
 15 truth hear the melody at all, but always just the individual sound that I actually directly hear. That the bit of melody elapsed is objective for me, I owe, people will say, to memory, and that with the arrival of the sound of the moment, I do not presuppose that to be all, I owe to forward looking expectation. There seems to be little to say in
 20 opposition to that.

This unfortunately also carries over to every individual sound. I am to hear the sound. But, it has its extension in time. When the sound rings out, I hear it as a now. Lasting, it has, though, an ever new now, and the previous now of the time changes into something
 25 past. Therefore, here, at any given time, is only the present phase of the sound, and the objectivity of the whole lasting sound is constituted in the act continuum that is to some extent memory, to a tiny extent, from time to time, perception, and to a greater extent expectation.

And, how do things <stand> with memory? Is it anything other
 30 than imagination? What is past, therefore, no longer present, is called to mind, and likewise for expectation. What is to come, not yet existing, is anticipated in presentation and indeed in the way we generally called calling to mind. Since authentic perception is universally and necessarily found embedded in this medium of imagination,
 35 and since only in this embedding, not only the now is constituted as something isolated, but what was and is to come, it then seems that we must distinguish between productive and simulative imagination, the former originally attaching to the perception, producing the

unfolding in time, the latter, bringing to mind again what was once produced. With this, I have at the same time characterized Brentano's view, who in recent times was one of the first, or even the very first, who strove after a descriptive analysis of the intuition of time, but
 5 unfortunately only made pronouncements about it in his courses in the seventies and eighties.

Nevertheless, it appears that this conception is impracticable and
 that we cannot designate that "primary" memory belonging ineradicably to perception and the simulative memory as being imagination
 10 in the same sense. What we called imagination, I mean pure imagination without symbolic function, is the distinctive modification of the concrete perceptual phenomenon that, as it were, repeats the whole phenomenon in all immanent moments in accordance with the immanent essence, but in doing so, through and through, as it were,
 15 brings forth that revaluation that out of the making present (*Gegenwärtigung*) brings about bringing to mind (*Vergegenwärtigung*). I said concrete perceptual phenomenon, that is, we take the whole phenomenon and not an abstraction. That now-point of the perception that points out a single, the now-constituting, phase of the same
 20 and says that that alone is perception, is, however, a mere abstraction, since it is just as inconceivable for such a point to be an experience in its own right as it is inconceivable for a point in time to be in its own right and not merely as a boundary point in the stream of time. Now, in modification, the concretely complete phenomenon with
 25 the object also <gives> its time as time brought to mind. Appearing, therefore, in the imagining of a melody is the whole timeframe with all phases, and it appears unwinding imaginatively. Appearing first is a now, the first sound, then after ending, the second one, etc. In this, reflection shows the phenomenon of imagination itself as experienc-
 30 ing, in which the first-and-then-conjointly also has current temporal meaning. In imagining, an imagined timeframe can only be constituted phenomenally because the imagining unwinds really (*reell*) and temporally and in its phases intentionally constitutes the, so to speak, ideal timeframe.

35 Let us now compare genuine imagining, the essence of which is simulation, with the alleged imagining that forms the medium of perception, namely, the "primary memory" belonging to it. More precisely, let us

compare some phase of this primary memory with the respective now-point of the simulative imagining. I now ask whether the sound of the melody, whose turn it is in the imagining and appears as sounding now, but in the manner of being brought to mind, is given in the same way as the sound in the perception that has just faded away. Are both indeed alleged fantasies? Now, the basic essential difference leaps to the eye. In fantasy, a now itself appears. It stands before our eyes as now, only as now brought to mind. The sound just past in perception does not, though, in any way itself stand as a now before our eyes, namely, as now brought to mind, but as something past not brought to mind. The whole character and outward appearance of the phenomenon is different. And, that already concerns the contents of the apprehension that, fresh in memory, manifestly do not have the character of an illusion. Just consider the sound illusion and the distinctive way of being conscious in which sound as past lives on in the perceptual consciousness. 258

Further, if the original consciousness of the past belonging to the perception is fantasy, then what is the simulative fresh consciousness of the past belonging to the fantasy? I have the melody in mind in my imagination. It plays back, sound by sound. While I dwell directly on a sound that was, that is directly “as it were” ringing out for me now and appears imaginatively to be ringing out now, the sounds that have flowed away are still in the imaginative consciousness. Are they imagined in it? Then, they do not really differ from sounds that have now perceptually flowed away. No one, though, will doubt not having really just heard, but only imagined, them. And, moreover, people still compare fantasy-directly-past with the fantasy-now! In no way does the imaginary sound that directly flowed away figure in the same way as the imaginary sound whose turn it is now. Otherwise, all sounds would truly appear to be simultaneous. All would be called to mind together in the way now-sounds are. We obviously find precisely the same fundamental differences intrinsically belonging to perception once more essentially identically in imagination, but in a modified way. It just belongs to the essence of the imaginative modification to reflect back precisely all differences of content. It is, therefore, clear *that we must keep imaginative consciousness and primary memory consciousness apart.*

<(c) The Analogies Between Imaginative Consciousness
and Primary Memory>

On the other hand, one should not deny all kinship. For, original memory consciousness also has the character of a modification in relation to the now-phase of perception, and, as one can then also say *eo ipso*, each past phase of the whole phenomenon in relation to each later phase. This modification also runs through and through and, accordingly, besides the contents of apprehending, it also concerns the apprehending and its character. Continuity of apprehending runs throughout the perception, a steady trailing off that binds the now-phase with all other phases. And, this continuity of apprehending is based upon a continuity of the steadily trailing off, "fading away" contents of apprehending. This final trailing off is also steady. On the other hand, *there is no steady transition from sensation to illusion*, but a break, discontinuity, and I dare to contend this despite having weighed well the opposing views and the grounds for them. There may be all kinds of continuity within fantasy, but there is a gulf between sensation and illusion. The same holds of apprehending. Sensory impression and simulation are distinct modes of apprehension separated by a gulf for the same, or possibly the same, meaning and phenomenal content. In comparison, continuity of apprehending leads from the now-apprehending to the past-apprehending. Once again, for the same, even identical, sense. And, both these continuities belong so essentially to perception that no phase of it can exist in its own right, neither the now-phase, nor any past phase. This is no metaphysical contention drawn from some scholastic ontology, but something to be known evidently and intuitively in light of the essence of pre-empirical givenness and temporality, a law of essence.

Yet, once again, it is essential differences, rather than common traits, between imagination and temporal modification that have emerged, and only the word modification indicates kinship. And, behind this lies an advantage that actually brings both phenomena closer to one another. In the first place, illusions are modifications of sensations and thus admit only, if at all, of imaginative apprehending.⁸ On the other hand, belonging to the essence of sensation is the

⁸The parallel is a false one, because the statement is a misunderstanding for illusions. Illusions are really modified consciousness.

pre-phenomenal temporal trailing off, and each phase of this trailing off admits only of perceptual apperception in a corresponding phase: a now-phase of a sensation, only an apprehending of an objective now, and a past phase, only of an apprehending of one that has passed.⁹ If 260

5 we lift some past moment out of a fading away sensation of sound, then no sound-now can ever be constituted with that. Naturally, that carries over to the illusions that, modified, have parallel trailing off and the same possibilities of apprehending. Further, fantasy apprehending has the distinctive feature that it is “as it were” perceptual

10 apprehending, that means that if we reflect imaginatively upon the apprehending, then the apprehending figures once again as fantasy, as the bringing to mind of a perceptual apprehending.

The same holds *mutatis mutandis* for the primary modification of memory. While the sound C is ringing out, B and A, say, appear 15 still fresh in the memory and with the quality of “having-been”, which is evidently a quality different from the quality of “now”. But, evidently it at the same time belongs to the meaning of this past thing to be a *was-perceived*. Not only has the sound passed, it was perceived. That is an *a priori* Evidenz, an *a priori* connection, just exactly as, a short time ago, the Evidenz that “imagining 20 an object to oneself” was equivalent to the imagining-to-onself that one sees it, perceives it. And, the phenomenological basis of this Evidenz is the ineradicable peculiarity also belonging to the essence of memory modification that it is not solely in general

25 modification of perception, but that it has the property, on the one hand, of letting its object appear as past and, on the other hand, as reflective analysis teaches, of accomplishing that by a modification of apprehending that is related to the apprehending of perception in precisely the way as the temporal trailing off of the sensation is to

⁹Very precarious, compare a page in “Impression und Idee”. Have I apprehended past-phases of the sensation as past? I have a “reverberation”. Let us think, which is easier, of a succession of sounds flowing off. Then, with C, I have A and B “still in consciousness”. Have I apprehended a content A' there as A past? And, can one speak of a past-phase of the sensation equaling A'? A' is a modification analogous to illusion (A) and is itself past consciousness of A. [The page referred to could not be found. Comp. *Husserliana XXIV*, p. 496. Translator's note.]

- the now-point of the sensation.¹⁰ In other words, a perceptual apprehending figures in reflection, though not as actually present, but as past. Another way of saying the same thing is: Speaking from the standpoint of phenomenal givenness, having passed and having-been-a-now are of one sort. In this way, light is shed on what, to my mind, is the greatest difficulty of the problem of time, the equivalence of appearing-as-past and appearing-as-having-been-perceived. Of course, this difficulty has never been formulated, let alone studied. I agonized over it inwardly for years. So, we have actually uncovered deep-seated analogies between fantasy and primitively constituting time consciousness and shed light on important aspects of the latter.

<(d) The Identity of Temporal Matter in the Change of Temporal Modes. Continuous Sinking Back into the Past>

- The analogies extend yet further, and letting oneself to be guided by them facilitates time analysis in a completely extraordinary way. Just as in principle illusion repeats the same content as sensation, i.e., does not realize (depict, present!) any new essences of sensory contents, or at least, just as essentially the same thing can be given and *quasi*-given in one or the other, the same thing holds for the temporal modes of sensation, only that there we are dealing, not with two modes, but with a continuous variety of such modes. Accordingly, it especially needs to be said now that in a primary, completely intuitive memory (considered, therefore, to the extent that contents

¹⁰That is fine, but the last statement is incorrect as it stands. If, to begin with, we restrict ourselves to immanent contents, therefore, for example, immanent sounds or sequences of sounds, then a sound, say, "now", is presently given, the others not, but given in the form of immanent, indirect weres. In "trailings off", if you will. But, these trailings off, if they are not themselves to be the past sounds, are already "presentations" of weres and there are not first "modified contents" of any kind (as "trailings off") there that first mean past sounds by means of apprehending, namely modified apprehending. Just as an illusion is in itself already a presentation-simulation-of. It is a different matter if we consider transient objects and processes. Then, we have immanent processes that undergo transient apprehending, and then the statement is correct, if by sensations we understand the contents and by trailing off of the sensation, the past phases of the contents of the sensation of duration.

of apprehending are really there), in terms of essence, the same sensation moments remain everywhere and only differ in the ways of being given, i.e., in the moment of modification.¹¹ Nota bene, if we follow the temporal sequence, which represents one and the same now-moment
 5 in its sinking into the past.

And furthermore, the same holds of apprehending. In transient apprehending, the apprehending continuity preserves its apprehending meaning identically. Thus, the appearance remains utterly the same, “only” steadily sinks into the past.¹² One could say that the
 10 sensation’s temporal mode of the moment provides the representative

¹¹ Fundamentally wrong. It is not the sensation contents that remain. Otherwise, they would be sensation contents and now. Sensation is not a content and consciousness of givenness in addition, and (immanent) memory content is not content again and then consciousness of the past as a new consciousness of givenness.

¹² If we are talking about transient perceptions here, then it needs to be said that a transient appearance dwells in them as an immanent content. Now, the same thing holds of this appearance as holds of any immanent content, for example, of “sound”. Corresponding to the perception’s now-point is a constituting, impressional, appearance *phansis*, and following upon that, a steady series of modifications, a “sinking”, namely corresponding to the steady occurring of a new now. These modifications are all modifications of the same content, the one sensed in the actual appearance impression at the beginning. Therefore, “the same thing”, the same appearance *phansis*, namely, impressional, incessantly shows itself, and in this sense one can say “the same appearance everywhere”.

If we do not have any transient perceptions (or appearances), then it is to be kept in mind that the modifications are already in themselves modifications-of (thus, intentionalities of the lowest level) and surely also the impressional moment of each now. No special perceptions are needed adding on to any dead material of “sensations” and “illusions”, which would be mere “contents”, etc. Everything is “consciousness”, but consciousness is not something adding on (only insofar as higher consciousness is based on consciousness do lower intentional unities form the groundwork for higher ones). If we call the impressional moment “sound” belonging to the now-point of the immanent object (the object-sound-now) sensation, then this impressional moment is already consciousness, sound consciousness. Naturally, if the steady continuity of the impressional moments is not identical to the duration of the sound, since this <is> precisely an objective unity, then sensation is sensation-of, and this does not suffice either to bring the unity of the now and the duration of the sound to givenness. Were an I conceivable in which this sequence of sensations elapsed, then there would not be any sound there. Sound is there and adequately there, itself there, only when this sequence of sensations is interfused with the manifold of the sequence of modifications in the ways indicated. Naturally, if the sensation is also self-positioning of the sound, then the sound could not be given as self-identical, as a unity, without retention, which consequently is essentially part of the sound as unity. However, the constituting consciousness does not appear to be such a unity, but this still requires investigation.

- for the object's position in time. Yet, that holds only for positions in time relative to the flowing now. Furthermore, the radical difference between the objectification of the position in time and the objectification of the time content must be clearly preserved. "Past" is a predicate similar to, say, the "ideality" that we ascribe to imaginary objects. One may not and can not place such things on the same level with "properties", with what makes up, determines the object's content in accordance with its own "essence". In terms of its content, the object is composed of parts and has properties. This is constituted in appearance and its meaning (more precisely objective meaning). This meaning is the same in perception and fantasy, and it is again the same if we follow the now-phase of the perception in the continuum of sinking back into the past. In the now-phase of perception, we capture the now-point of the moment, the sound's temporal present. While a new and ever new now is continually attaching itself on to the same matter if the sound continues unchanged, on to different, intrinsically changing <matter> if it changes, the now-point focussed upon continually sinks with its matter back into the past. That point's matter continually remains the same in so doing. The sound, or rather sound-point, is continually referred to as the same with the same intrinsic specifications. With regard to meaning, to the content of the objectivity, the objectifying apprehending is continually the same. The meaning here refers back to the sound phase (more universally, the object phase) that sinks, goes back into the past, but not to this going-back-into-the-past itself. While the temporal matter remains the same, the object's state is preserved identically, and in accordance with its extra-temporal essence, the appearance continually coincides with itself,¹³ the form of temporal givenness changes continually. This brings us to speak of the sinking back of the appearance and of the appearing existence in past: the same appearing now, the same no longer now, but is past, further in the past, etc.

We have focused here on a specific now-point of the sound and followed its sinking back into time. But, the same holds for every now-point. A sound begins to ring out. Then, a now is the first thing.

¹³That does not, though, mean that it itself remains unchanged and just receives some new "form". The overlapping is intentional overlapping as concerns the "content" of what was referred to.

It sinks into the past and belonging to it is the comet tail of primary memory, whose constitution we have just now described, continually attaching itself on, extending, and trailing off. But, immediately, continually also attaching itself on to the first now is a new one, which again
 5 moves into the past, and then again a new one, etc. These are not now-points dethroning one another, but a continual flowing, a continuous self-modifying of the now and self-renewing of the now, and a continuous ringing out and fading out. That continual constitution of the memory-tail holds over and over for every point we pick out
 10 there. In this, we naturally have not to think of the temporal modifications of the different now-points as separated phenomena. Rather, a unitary past-phenomenon is constituted simply owing to the fact that
 15 every memory consciousness already previously fused with a present now-point is itself something existing now, therefore, subject to the same law of modification of moving back into the past. The first now, say of the sound just beginning, immediately begins to sink. And, immediately, a new now adds itself on the other side. The modification of the previous now is interfused with the new now with whose sinking the modification also sinks, while a new now is once more
 20 adding itself that then brings the fused temporal modification of the earlier and even earlier now with it as memory-tail. This now with its memory-tail, however, immediately sinks again, etc.

In this manner, the “memory after-image” of all the nows elapsed up to that point is attached to each now, for every modification of a modification verifies the content of the previous modification, just moving
 25 it back. Belonging likewise to each now-moment of the sound as now-giveness is a comet tail that brings the modifications of every earlier now into the modification status in which they just now find themselves with it as a fresh memory. As a temporal succession, the succession of
 30 fresh memories itself sinks back again into time. The primary memory in an earlier phase is related to the fresh memory of a later phase just as a single sound-point is related in the earlier and later phases.

<(e) The Constitution of Objective Time Within the Flow of Time>

Not everything has been accomplished with these analyses, though.
 35 Yet to be elucidated is the main theme of the theory of time conscious-

ness, namely *how the objectivity of the point in time is constituted in the continuous flow of time consciousness*, of the continual modification of the sinking into the past, and similarly, the objectivity of the time span and finally of the individual temporal object and process.

- 5 All objectification is realized in time consciousness. Without elucidation of the identity of the position in time, no elucidation of the identity of an object in time is forthcoming either. The issue here is the following. The now-phases of perception continually undergo 265 a modification. They are not preserved simply. They flow. In this
- 10 is constituted what we have called the sinking back into time. The sound rings out now and immediately sinks down into the past, the same sound. That concerns the whole sound in each of its phases and, for this reason, the whole one. Now, as a result of our reflections up to this point, the sinking down seems to some degree understandable,
- 15 but how is it that, vis-à-vis the sound's sinking, we nevertheless say that the sounds <receive> a fixed position in time? The sound, and each point in time in the unity of the lasting sound, therefore, has its absolutely fixed position in "objective" time (even if in immanent time). "The sound sinks into the past" and yet does not change its
- 20 time. Time is motionless and yet time flows. In the flow of time, in the continual sinking into the past, an unflowing, absolutely fixed identical-objective time is constituted. That is the problem. Let us first reflect on the situation of the sinking of one and the same sound.

- Why do we speak of the same sound that sinks? Speaking objec-
- 25 tively, sound is structured in the flow of time by its phases. Of each phase's sensation representatives, say, those of an actual now, we know that, while being subject to the law of continual modification, they must yet therefore seem to be objectively the same thing, the same sound-point, as it were, because an apprehending continuity is
- 30 apparent there that holds sway throughout by the identity of meaning and can be found in continuous coinciding. The coinciding concerns the extra-temporal matter that preserves precisely the identity of the objective meaning in the flow. That holds for each now-phase. But, each new now is precisely a new one and is phenomenologi-
- 35 cally characterized as that. Though the sound may last completely unchanged in such a way that not the slightest change is visible to us, though each new now may possess precisely the same apprehending content as concerns quality moments, intensity moments etc., and

- bear precisely the same apprehending, yet a primordial difference is apparent, a difference belonging to a new dimension, and this difference is continual. Phenomenologically apparent is that only the now-point is characterized as actual now, namely as something new, that the earlier now-point has undergone its modification, the even earlier one, its more extensive modification, etc. This continuum of modifications of the apprehending-contents and the apprehendings based upon them produces the consciousness of the extension of the sound with the constant sinking into the past of those already extended.
- 10 How, though, does the consciousness of objective time and, to begin with, of the identical position in time and extension in time, then come about in face of the phenomenon of the continual changing of time consciousness?

- The answer is: Due to the fact that, vis-à-vis the flow of moving back in time (the flow of modifications of consciousness), the object that seems moved back simply remains apperceptively preserved in absolute identity, namely, the object together with its position experienced in the now-point as this. The continual modification of the apprehending in the continual flow does not concern the as-what of the apprehending, the meaning, does not refer to any new object (any new object phase). It does not yield any new points in time, but continually the same object with its own points in time. Every actual now creates a new objective point in time, because it creates a new object, or rather a new object-point that is captured as identically the same individual object-point within the flow of modification. And, the continuity in which a new now is constituted over and over again shows us that it is not in general a question of "newness", but of a continual moment of individuation in which the position in time has its source. Belonging to the essence of the modifying flow is that this position in time figures as identical, and as necessarily identical. The now as actual now is the givenness in the present of the position in time. If the phenomenon moves into the past, then the now preserves the quality of past now, but it remains the same now, only that it figures as past in relation to the actual, temporally new now of the moment.

- 35 The objectification of the temporal object rests, therefore, on successive moments, in the first, place on the sensation-content belonging to the object's different actual present-points. The sensation-content can be qualitatively absolutely the same, but apart from all identity of

content, however far-reaching, does not have true identity. There is a difference between the same sensation now and at another now, namely a phenomenological difference that corresponds to the absolute position in time. It is, namely, the primordial source of the representation of the absolute position in time, or of the individuality of the this.

- 5 In addition, we have to take into account the continual modification of the past of the sensation-content, which presents a new dimension. Each phase of the modification has “in essence” the same qualitative content and the same time-moment, though modified, and
 10 has it in itself in such a way that the subsequent apprehending of identity is possible. This, on the part of the sensation, or the foundation of the apprehension. The different moments bear different facets of the apprehension, of the authentic objectification. One facet of objectification finds its support purely in the qualitative content of
 15 the sensation material. That provides the temporal matter, for example, sound. It is captured identically in the flow of modification of the past. A second facet of objectification springs from the apprehending of representatives of temporal position. This apprehending is also continually captured in the flow of modification. Therefore,
 20 all together: In its absolute individuality, the sound-point is captured in terms of temporal matter and temporal position, only the latter of which constitutes individuality. Finally, there is the apprehending, which essentially belongs to the modification and which, in the capturing of the extended objectivity with its immanent absolute time,
 25 allows the continuous moving back into the past to appear.

- In our sound example, each now-point of the continually new ringing out and fading away, therefore, has its sensation-material and its objectifying apprehending. The sound figures as sound of a plucked violin string. If we look at the sensation-material, then materially it
 30 is, say, continually the note *E*. Sound quality and timbre unchanged, perhaps slightly fluctuating in intensity, plus a noisy moment or another on the side, and so on. Purely as content of sensation, as it underlies the objectifying apperception, this content is extended, that is, every now has its sensation-content, every other now an individually different one, even though it may be exactly the same materially.
 35 Absolutely the same *E* is now and later the same in terms of sensation, but individually different. What “individually” means here is the primitive temporal form of the sensation or, as I can also say, the

temporal form of the primitive sensation. By primitive sensation, I understand here the sensation of the now-point of the time and only that. But, the now-point itself is really to be defined by the primitive sensation, so that the proposition stated has to be considered only as
 5 a pointer to what is to be referred to. Sensation (impression) differs 268
 from illusion by the quality of primordially. Now, within the sensation (impression), generally speaking the pure impression (the pure one that is free of all modification and is the basis of the now-objectification), we must point up the primitive impression that figures in
 10 primary memory consciousness as against the continuum of modifications. The primitive impression is what is absolutely unmodified, the primitive source for all further consciousness and being.

Primitive impressions have as content what is signified by the word now, provided it is understood in the strictest sense. Every new
 15 now is a content of a new primitive impression. Continually, one new impression after another lights up with ever new, sometimes the same, sometimes changing, material. What separates primitive impression from primitive impression is the individualizing moment of the primordial impression of position in time, which is something fundamentally, essentially different from the quality and other material
 20 moments of the content of the sensation. The moment of the primordial position in time is naturally nothing in its own right. Individuation is not something apart from what has individuation. The whole now-point, then, the content of the whole originary impression, undergoes
 25 the past-modification, and only by it have we exhausted the entire now-concept, insofar as it is relative and points to a "past", as "past" to the "now". This modification also first concerns the sensation, without abrogating its universal impressional character. It modifies the overall content of the primordial impression, both in terms of
 30 matter and of position in time. It modifies, though, precisely in the sense that an imaginative modification does, namely modifying through and through, and yet not changing the intentional essence. Therefore, the matter is the same matter, the position in time, the same position in time, only the way of being given has changed: It
 35 is past-giveness. The objectifying apperception is then based upon this sensation material. Already, when we look purely (disregarding possible transcending apperceptions based upon them) at the sensations (equals sensation-contents), we are already performing an apperception.

The “flow of time”, the duration stands before our eyes then as a kind of objectivity. Objectivity presupposes consciousness of unity, consciousness of identity. Here, we apprehend each primitive sensation, the content of each primitive sensation as individual. The primitive 269

- 5 sensation gives a sound-point individual, and in the flow of the past-modification, this individual is identically the same. In the past-modification, the apperception related to this point continues coinciding continuously, and the identity of the individual is *eo ipso* identity of the position in time.
- 10 In their apprehending as individual points, the continuous gushing forth of new now-points, of new primitive impressions, produces ever new and different positions in time. The continuity produces a continuity of positions in time. A continuous sound-filled bit of time, therefore, figures in the flow of the past-modification, but in such a
- 15 way that only one point of it is given by primitive impression and that, from then on, the time positions appear continuously in modified gradation going back into the past. Each time perceived is perceived as past that ends in the present. And, the present is a boundary point. Every apprehending, however transcending it may be, is bound to
- 20 this pattern. If we perceive a flock of birds, a cavalry troop galloping, and so on, then in the sensation’s substratum, we find the described differences of sensation, the ever new, primitive sensation, or its contents, however complex they may be, bringing with it the quality of its time position that confers individuation on it, and, on the other
- 25 hand, we find these same modes in the apprehending.¹⁴ Precisely owing to this, however, the objective individual appears, the flock of birds, as primitive givenness in the now-point, but as full givenness in a continuum of the past that ends in the now, and continually in an ever new now, while what has continuously gone ahead is shifted fur-
- 30 ther and further back into the past-continuum. The appearing process unceasingly has identical absolute time values. In moving further and further back into the past after the elapsed portion, it moves its absolute time position, and with that its whole time span, with it into the past, meaning that the same process with the same absolute temporal
- 35 extension unceasingly appears (as long as it in general appears) as

¹⁴The apprehending concretely understood: the appearance is itself an immanent unity and corresponding to this are the apprehending impressions and modifications.

identically the same, just that its form of givenness is different. On the other hand, at the same time, ever new primordial being wells up in the living well of being, in the now, in relation to which the gap between the time points of the now of the moment belonging to the process continuously increases. Consequently, the appearance of sinking, moving away develops. 270

The laws belonging to the essence of time become evident on the basis of these intuitions of time position givenness. To begin with, if we compare two primitive sensations or rather, correlatively, two objective primitive givens, both really appearing in a consciousness as primitive givens, as now, then they are two by virtue of their matter. They are, though, simultaneous. They have identically the same absolute position in time. They are both now, and in the same now, they have the same time position value, and necessarily so. They have the same form of individuation. They are both constituted in sensation impressions that belong to the same level of impressions. They are modified in this identity and <they> retain it unceasingly in the past-modification. A primitive given and a modified given with a different or the same content necessarily have different time positions. And, two modified givens have either the same or different time positions, the same, if they have sprung from the same now, different, if from different ones.

The actual now is *one* now and constitutes *one* time position, however many objectivities were separately constituted in it. They all have the same temporal present and retain simultaneity in flowing away. That the temporal positions have gaps and are quantities, etc., can be seen here evidently. Belonging to the *a priori* essence of time is that it is a continuity of time positions with sometimes identical, sometimes changing objectivities filling it, and that the homogeneity of absolute time is ineradicably constituted in the flow of the past-modification and in the continuous gushing of the now, the creative time point, the well of time positions in general.

Additionally belonging to the *a priori* essence of the situation is for sensation, apprehending, position-taking, for everything to participate together in the same time flow and for the objectified absolute time to be necessarily the same as the time belonging to sensation and apprehending. The pre-objectified time that, say, belongs to the sensation, necessarily grounds the sole possibility of a time position

objectification that corresponds to the trailing off of modification in the sensation, to the degree of its modification. Corresponding to the objectified time point in which, say, a ringing of bells begins is the time point of the corresponding sensation. In the initial phase, it has the same time. That means that, if subsequently made into an object, then it necessarily receives the time position that is identically the same as the corresponding time position of the bell ringing. 271

In the same way, the time of perception and the time of the perceived is identically the same. The perceptual act sinks back in time in the same way the perceived does in appearance, and in reflection, the identically the same time position must be given to every perceptual phase as to the perceived.

<(f) The Relationship Between Simulative and Primary Memory.
Time as Necessary Form of Individual Objectivity>

Our reflections are still in need of some supplementation. We reflected upon primary memory as a comet tail in perception. If the whole perception has flowed away, then simply a fading residue of primary memory is left behind. But, the function of now positing has not died out. It offers itself to the primary memory itself insofar as it itself is truly actual, taken in its modification, is itself a now. On the other hand, though, new impressions are at times there and ground new concrete time sequences. The field of sensation is always necessarily filled with material. It is *a priori* inconceivable that a now would be the last now and no new now issue from it. A new now, though, presupposes new primitive impressions. The now-point must always necessarily be filled. An empty now is *nonsense*,¹⁵ and so is empty time. Let us further point out the double meaning of perception that has emerged from our reflections: (1) *perception as compared to simulation*; and (2) *perception as primitive perception*, as the act in which the current present is constituted with the production of a new position in time. Primary memory, though, is the act in which the past is given primordially, and perception in the full con-

¹⁵This word was in English in the original (Translator's note).

crete sense is the act in which a temporally extended objectivity is given and referred to with temporal extension, or as identical in time. 272
However, I can only provide a rough indication here.

- Among further problems of significance here may be mentioned
- 5 the investigation of the relationship of simulative memory to primary memory and to perception with respect to their temporal relationships: the fitting of the times of simulative memories presented into the unity of a single time. The simulative memory repeats all relationships and modifications of perception and primary memory in
- 10 the form of imagination. How does it happen, then, that the imaginative presentation of a now and something past associated with it can be the presentation of a now that is actually past, therefore, is inserted into the actual temporal sequence of the perception? In re-remembering, the now of imagination ought, however, to present
- 15 something that is past.

- A link between simulative and primary memory is established by the fact that bits of the vivid primary memory sequence lying further back can be, as it were, recapitulated in the now by imaginative simulation. While a unitary sound process, melody, noise, people talking,
- 20 unwinds, and while another bit of melody, say, is vividly fresh in memory, a memory of this bit of melody occurs in the form of an imaginative simulation. I hear whistling. It hangs in the air. I repeat the whole process for myself simulatively and experience identity consciousness. The simulated now of the imagination goes up at the
- 25 same time in unity of identity to the sound primarily remembered in the past mode involved. The presented now turns into the representative for something past, or in this way turns out to be not simply the simple imagining of a now, but the calling to mind of a past now. To the extent that simulative memory can in general be fulfilled, it is so
- 30 in this manner, possibly, of course, very indirectly: In the receding of the remembered time sequence, we must come up to the actual now and its primarily given temporal setting. As concerns its possibility, this recession is explained as going back to earlier time phases. That
- <is> the analysis of "recapitulation".

- 35 To conclude, I again point out how misleading it is to describe time as a form of consciousness, or as form of intuition, or as a form of sensuousness. Consciousness is certainly a constant flow of contents. 273
Even when a content of consciousness endures, the enduring

does not consist in a content's simply keeping-itself-identical, but in a constant flow of changes. For an echo of every phase of what is enduring remains behind. Every content fades away, and if it keeps on enduring, then belonging to every phase of its duration is a trailing off, a continuous fading away.

- 5 *And nevertheless, it is misleading to say that time is a form of consciousness*, for time is first constituted in synthesis, and without synthesis, only the possibility of the objectifying consciousness of time obtains, but not the reality. The actual experiences, the contents per
 10 se, have their objective time positions, temporal orderings, temporal extensions, etc. Things of this kind appertain to them, namely owing to the ideal possibility of an objectifying consciousness that objectifies the contents as contents and in so doing realizes the needed identifications. *Time is not a form of consciousness, but the form of*
 15 *every possible objectivity*, and only inasmuch as contents can also be constituted as objects in perceptions and other objectifying acts do they also have their time. Everything temporal is categorial in nature. Just as identity, difference, multiplicity, and unity, and so on, can only be given for an identifying, differentiating, collecting, positing
 20 of unity, and on the other hand, are nevertheless not accidental, but something objectively appertaining, and so very much so that without them there could be no talk of objectivity in general, precisely the same thing holds of time, which itself is the essential form of individual objectivity.

- 25 Where there is nothing like now-positing, primary memory, expectation, identification, and so on, the content remains, so to speak, blind. It does not mean any objective being, any objective duration, any objective changing, any succession, etc. Everything that is just has an essential relationship to a possible consciousness. Saying that
 30 it is already points to possible adequacy and points to an objective time position in which it is and in which it necessarily calls for a before and an after. And, the fact that this or that appertains to it presupposes that the appertaining has a primordial sense, which refers again to the sphere of judgments and to the possibility of one possible
 35 categorial intuition or another.

What is important here, though, is that time is not, say, a form of sensuousness, as if sensorial contents were already objects, as if
 274 another objective time position belonged to the sensorial contents as

- a further content moment, say, some manner of quality or intensity, and then all sensorial contents had their temporal ordering owing to this time moment. In truth, temporal ordering is only actually realized in time-positing acts, and where they are not really performed,
- 5 time is not something actual. It is, then, only objective in the sense of numbers, which are not something existing apart from what is counted either, but rather as ideal possibility of counting. In our case, we would plainly not ever have underlying objectivity without the beginning of a time-positing. On the other hand, time may not be
- 10 understood as an unconscious ordering function of the mind either. We do not, in general, have to speak of minds here. We are talking about essential properties of acts and objects. It makes no difference what minds are or are not. And, even less do we have to speak of unconscious functions. Time is the necessary form of individual
- 15 objectivity and has nothing at all to do with contingent subjectivity.

THE HIGHER FORMS OF OBJECTIFICATION>

<§44. *The Main Types of Concrete Objectification
and the Fundamental Contrasts Within the Sphere
of Objectification as a Whole*>

5

The last lectures afforded you a look into the original essence of time consciousness, whose full elucidation obviously constitutes one of the main foundations of all so-called theory of experience. The original essence of time consciousness is naturally revealed in
10 the authentic intuition of time as we have it in every perception and, which is already implied in this, in every fresh memory directly following a perception. The latter is really in a certain way itself a perception, namely, the direct, impressional laying hold of past being, just as, on the other hand, perception at the same time *in*
15 *concreto* implies fresh memory.

Time consciousness is not always perception of time, not always 275 primarily time constituting consciousness. We also have time consciousness in the form of simulative memory, of re-remembering, and something of the kind also in symbolic form and in the form of
20 temporal judging, in short, in forms in which we do not have simply time givenness before us and lay a confirmatory finger on it, but often, and to a completely extraordinary degree, we determine time objectively and posit it as existing on the basis of indirect indications, on the basis of extraneous information, etc. For this, an imaginative
25 simulation or a figurative presentation of what is referred to does not even need to be present. Obviously, all that also needs phenomenological elucidation. Needed is a phenomenology of the simulative memory and of its relation to primary memory, a phenomenology of the direct, purely intuitive, and of the indirect, sign-mediated evaluation of time, comparison of time and, in general, judgment of time.
30 But, it would mean starting from the wrong end were one to want to begin there.

It only requires a little reflection to recognize that the essence of objectivity and of the constituting consciousness of objectivity can only

- be revealed if one first of all inquires into the consciousness in which the objectivity is “given”. And, that holds for *every kind of objectivity* and every kind of form, above all, for the time form, without which individual being is nothing, because it belongs precisely to the essence of objective being for it to be constituted in and with time. All symbolically mediated and predicative consciousness is gauged in terms of the corresponding consciousness of givenness and first shows its “authentic meaning” in its adequacy to it. What is implied in this, in this adequacy and showing of meaning is, of course, itself only to be fully clarified phenomenologically. But, one already sees beforehand that, everywhere, theory of knowledge’s continuous pressing on to analyses of origins, the call to go back to the origins, just does not and may not refer to anything other than the study of givenness and determination of meaning through adequacy to it.
- 15 Naturally, we can no longer fall into the fundamental error of confusing empirico-psychological origin with this epistemological origin. Investigating the essence of experience, substantiating its meaning, does not mean experiencing. All experiencing has a meaning, but does not experience its meaning, and *judgments that state the essence* 276
- 20 *of experience are not empirical judgments. So, the essence of time is not itself a being in time, and statements about the essence of time <are> not universal statements about temporal being, but about what is necessarily given in the essence or meaning of time.* The same thing naturally holds of statements about the essence of consciousness in
- 25 which time-givenness consists.

- Of the problems of time analysis mentioned, the problem of simulative memory, the question as to how an imaginatively simulated now, with which every intuitive calling to mind of time truly begins, can act as a representative of something in the past, would belong
- 30 in our sphere of lower intellectual acts and not be unimportant. The quality of pastness is only given in primary memory, in the form of the fading away of time and, qualitatively, is entirely different there from a simulated now. In general, it is to be asked how an extension of time intentionally posited into infinity is realized by means of simulative and symbolic presentation within the confines of the original
- 35 flow of time, of the flow of primary memory, and, in connection with this, the question as to how the presentation of the world is extended to the presentation of an all-around endlessness, and this too with respect to the present-point: in such a manner that we add an infinite

variety of things and processes on to the now-point, though only a minimal bit of it comes to actual now-givenness.

Owing to the shortness of the time still available to us, I am skipping over all such problems. In addition to the objectification of points in time and the time span, I would have very much liked to have now also discussed the objectification of points in space and the in many ways related objective spatial extension of things and in so doing to have extended our analyses of perception. However, that too would have made too great a claim on our time, were it to be made in any way understandable.

The main types of concrete objectification that we have analyzed may be grouped:

1. *Into primary objectifications*, in which givenness is constituted. First of all, perceptions. Belonging to every perception is a bit of fresh memory disappearing into vagueness and a forward oriented expectation which, as it were, are swept up into the incoming crest of the wave of ever new nows. In perception, though, the referring look is ordinarily oriented toward the now constituting itself. However, in so doing, the special attention paid can at the same time be directed toward what is coming, as well as toward what is receding in primary memory.

Detached from the perception related to this very objectivity, and as a continuation of the same, primary memory looks purely into the past. Likewise, expectation can, of course, be aroused by perception, but after it stops being freely oriented toward the future. In a broad sense, all these objectifications are primary. Namely, without them, the concepts of present, past, and future, and likewise, of enduring or changing past or future objects would be meaningless.

2. *Secondary*, namely modifying, *objectifications*. Among them, we count the imaginative and figurativeness modification, the re-remembering that, in comparison to pure imagination, essentially implies a relationship to the actual present, likewise, the expectation oriented toward a more distant future and relying on imaginary presentations.

3. *Unauthentic objectifications*, namely *empty presentations*, whether isolated or bound to intuitions in the way, for example, symbols are.

Certain fundamental differences confronted us in this regard:

1. The difference between merely referred to and given. In perception, the objectivity appears given in the authentic sense. In imaginative presentation, in imagination or in imagery, something appears presented as given "so to speak", but not as really given. In symbolic presentation,

when it is not figurative-symbolic, but significative, objectivity does not even appear so to speak. The object is referred to, but does not appear.

2. One can also set up (*aufstellen*) a contrast splitting the same distinction differently, namely, contrast (*gegenüberstellen*) the intuitive, as it were, full presentations (*Vorstellungen*) and, on the other hand, the empty presentations to which all merely significative, mere verbal presentations, for example, belong. In the one case, they are appearances of their objects, in the other, not. People have often spoken of authentic and unauthentic presentations. Only intuitions are authentic presentations. Empty intentions are directed toward objects, but are not “authentically” presentations of them. They do not make an object “stand before us”, just appear. Authentic presentations set the object before or portray it (*stellt den Gegenstand vor oder dar*). Namely, they objectively apprehend material given in sensation and illusion, look into this material indicatively, at least as concerns similarity. Hence, here people speak of apprehending, or even of representation (*Repräsentation*). Unauthentic presentations do not do that. Their objects are not represented, not portrayed (*dargestellt*) in content conscious in the sensation or imagination. This content is not considered as an object, not indicated as an object. 278

3. The contrast between adequate and not-adequate presentations pertains to authentic, intuitive presentations. Namely, the object either comes to full givenness (whether authentic or imaginative givenness), or this is not the case. The presentation refers to more than it really brings to appearance. 25

- All these fundamental contrasts return in the broadest sphere of objectification. They turn up again in the sphere of thought presentations, of new apperceptions, in which, leaving the position-taking out of account, the essence of thinking consists in the specific sense. This is why I have emphasized this point once again. We must above all come to realize that the difference between intuitive and empty extends beyond the lower kinds of presentations, that there is, therefore, a higher level of “intuitions” and a higher level of empty (significative and, in general, symbolic) presentations. 30

- I remind you here of the following: Presentation in general, by this, we always understand those experiences precisely making the objectivity they refer to presentational for authentic acts, positions taken toward something. I also call them objectifications, because 35

- through them an object is an object for consciousness. We focus exclusively on these underlying objectifications which, moreover, as it often seems to me, can also be given without any position-taking. We provisionally abstract from the position-taking. We now persuade
- 5 ourselves that the objectifications are not always those of the most straightforward sort that we have spoken about up until now.

<§45. *The Function of Identity*>

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<(a) The Explicit Consciousness of Identity Compared to the Continuous Consciousness of Oneness>

- 10 In connection with the analysis of perceptions, fantasies, memories, and figurative presentations, we have already often come across syntheses making up a higher level of presentations. In a certain sense, provided we take them in their full concretion, all empirical intuitions are combinations, *fusions of various elementary compo-*
- 15 *nents*, each of which is a presentation, while at the same time the concrete whole is likewise a presentation. Every component in fact makes something presentational. For example, every phase of an intuition of time presents an objective phase. The entire intuition of time then presents the entire temporally extended object, for exam-
- 20 ple, the duration of a sound as opposed to the sound-point. But, this combination is precisely a fusion whose elementary components only come to the fore through analysis and abstraction and lack any independence and, along with that, concretion. A perception, a memory, for example, of a sound reaching crescendo, is a homogeneous act. It
- 25 provides a homogeneous intuition.

- What I wish, rather, to remind you of here are the reflections that we had to carry out in the analysis in order to persuade ourselves that, for example, different appearances of the same object really immanently prove to be appearances of the same thing. Identify-
- 30 ing, we proceeded from one appearance's breaking off to another. We said that a flowing identification or coinciding is achieved in the continual flowing of one perception proceeding from one appearance to another, but in the comparison of the appearances that surfaced in their own right, we achieve the consciousness of identity in

another way, as explicit synthesis. If we separate this consciousness of identity as explicit and authentic from the implicit kind that we can continuously call consciousness of oneness, then identity of consciousness is an example belonging to the higher level, namely to specific “thinking”.

- 5 In consciousness of oneness, we are aware of the one object that is continually the same in all phases and appearances meaning it, 280 this one is continually presentational in the same sense. On the other hand, in the consciousness of identity, in the authentically explicit kind, we are aware of identity. We have a presentation of sameness. Expressed in words: this thing and that thing *are the same*. Previously, an object was continuously in consciousness, for example, with the unwinding of the continuum of appearances that we call the rotation of an object of external perception. The object figured 10 in this continuous continuum of change of appearances as this one and the same object, but the one object, and not identity, was the object. If, though, we train our sight on one appearance, for example, the appearance of the front in its own right, and on a second appearance, that of the back in its own right, and we realize the overlapping 15 synthetic consciousness of identity, then their identity is object in the latter. The objectivity of the front and that of the back are conscious, and at the same time their identity becomes objectively conscious. It, therefore, presents a new object. The overlapping consciousness of identity is a new objectification and grounds a new act. We perceive 20 identity and, as in every normal perception in the believing position-taking, posit identity as being.

- A new object, a new objectification.* They both truly essentially belong together and *are phenomenologically a correlative expression of the same situation*. The new object is a well-founded object. It necessarily presupposes further objects. Identity is nothing in its own right. Identity is identity between something and something. Expressed cor- 30 relatively, the identity objectification, identity presentation, is primitively constituted, and that belongs to its essence on the basis of other objectifications. Presentation *A* and presentation *B* are presupposed, so that the consciousness of the identity of *A* and *B* can be established 35 primitively. The well-founded object, the higher-level object, is constituted in a well-founded appearance, a higher-level appearance. We are quick to add *primitive constitution*, which signifies much the same as

- intuition* and, more *specifically*, *perception*. *Actually*, we see *identity*, *so to speak*, when we see the object, for example, a house standing before our eyes, once from the front and once from behind. That we see twice, and even see same thing twice in one consciousness, is not yet consciousness of identity, is not yet seeing the *sameness* of the house. We did not really need to “know” that each was an appearance of the same house. We know it, and know it in seeing, when each of these perceptions refers to its object in an apprehending meaning that essentially grounds the identity consciousness as a new one, when the two perceptions are brought to “coincidence” as regards their immanent meaning, namely, regarding what constitutes the object as this one, and this bringing-to-coincidence is the consciousness of a new objectivity, precisely of identity, namely a consciousness of perception. The coincidence, the identity is, as it were, seen, given. 281

<(b) The Givenness of Identity in Secondary
and Unauthentic Objectifications>

- Imaginative modification* stands in contrast to “perception”. We have an imaginative givenness of identity when we imagine two imaginary appearances of the same object of sheer imagination, say a centaur in one position and the same centaur in another position, and then realize the consciousness of identity in imagination. The object not only figures imaginatively two times, but we have also given the identity objectively, given it in imagination.
- Here, one could say: I am, though, identifying now. The identifying is not imagined identifying, or at least must not be referred to as such. The identity of the imaginary object is given to me now. However, it is to be noted that given now are both imaginary experiences, and given now is the consciousness of their coinciding, the consciousness that they refer to the same thing. That is certainly not an imaginary consciousness, just as the givenness of the imaginary experiences is not an imaginary, but a perceptual consciousness. Imaginary experience is not now-givenness, the imaginary experience’s being perceived. On the other hand, living in the imaginary consciousness and identifying in it, as objective identity of the imagined objects

of the centaur from this side or that, identity acquires the quality of imagined identity, of so-to-speak givenness. We are not speaking authentically when we say: I am now experiencing the identity of the imagined objects identifyingly, instead of saying, I am experiencing 282
 5 the coinciding in identity of both imaginary experiences.

Something similar further holds of figurativeness then. I just imagine a picture, that of the Rape of Europa, by Paolo Veronese depicted at several stages. Living in this pictorial consciousness, I lay hold of the identity of the process objectively in its different stages, but in the
 10 picture it is the different stages depicted as the same, and identity is depicted with it. It is identity of the Rape of Europa as an identity referred to pictorially. Changing over to the actual now-consciousness, I can again say: now I am identifying, but also only in the sense that the different depictions that I am now experiencing as the same coincide in terms of their objective meaning. This actual coinciding is
 15 now-givenness, but the identity of the painting's subject is not a now-givenness, but belongs to the picturing. It is pictorial consciousness of givenness, an intuitive, but imaginative consciousness.

Naturally, perception and imagination, imagination and figurativeness can enter into synthetic oneness by identifying coincidence. The synthesis of the apprehendings, of the presentations is at hand really (*reell*), a perceptual givenness. The identity itself, though, so far as we live in the presentations, is not givenness in the sense of perceptual givenness. Of course, one cannot simply speak here of
 25 imaginary or pictorial givenness with respect to identity. Here, one will doubtlessly have to speak of a singular givenness that is unique to this synthetic oneness. A givenness thought of, so to speak, but givenness nonetheless, and *givenness is always intuitiveness in a certain broad sense*.

30 A new case occurs if two symbolic or completely empty presentations come to coincide in meaning; where there actually is identification, the empty intentions really, therefore, happen to be coincident. As, for example, when we say, Alexander is Paris. The identity is not presented here in the sense of fantasy. It is, therefore, not given
 35 as it were, as when we focus intuitively on the same object in two different stages. The identity is presented, and in the manner of an empty intention presents the identity that would be given authentically in an intuition and finally perception. Again, the coinciding of

the presentations is given really (*reell*) here and can be perceived as givenness.

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- 5 *This empty intention of identity hints, nonetheless, of quasi-givenness,*
 in so far as standing opposite it is the case in which an empty intention
 of identity is realized without an actual consciousness of coinciding
 having brought presentations of identical objects into synthetic one-
 ness. It happens often enough that we present, refer to, even affirm
 identity while no actual coinciding is grounded in the meaning of
 presentations set into relation. For this, the presentations do not
 10 even need to be empty presentations. Two imaginary presentations,
 even perceptual presentations, can be united by a presentational
 consciousness of identity without there being anything like actual
 consciousness of coinciding. If the “thought” comes to me that two
 appearances might belong to the same object, then an intention of
 15 identity obtains, but the identity is not given, i.e., the consciousness
 of coinciding is not already realized, but the question is precisely
 whether it is possible. There, we have an empty intention of identity.
 And, likewise for empty intentions. New occurrences are, therefore,
 of course, happening here. On the other hand, though, it is settled that
 20 identity remains constituted as objectivity in objectifying acts, and
 the differences between perception, fantasy, even memory, still carry
 over to these objectifications. Likewise, for the distinction between
 adequate and inadequate, for example, two phases of an immanent
 perception of sound that are identified as phases of one and the same
 25 sound.

<(c) Objectifications Belonging Together
 with Consciousness of Identity>

- What <holds> for identity also holds for *non-identity*, for *difference*,
 in the sense constituting the contrast with identity. If we go
 30 from the appearance of one object to the appearance of another,
 namely with the intention of coinciding, then the consciousness of
 otherness as a result of appearances emerges. The appearances are,
 as it were, brought into a situation of coinciding, but they do not
 coincide. The “not” is but another expression of otherness that is here
 35 the new, well-founded object. Careful examination shows a conflict

here between the presentationally posited, as it were, “attempted”
 identicalness of *A* and *B* and what the appearances *A* and *B* provide 284
 in their consciousness-unity, in the unity of separated juxtaposition.

This unity in juxtaposition, of separation, is the first primitive difference.
 5 The presuming of coinciding, the presentation and positing of
 the identicalness of *A* and *B*, conflicts then with the given separation
 of the same *A* and *B*. In this conflict is the source of talk of non-
 identity and otherness as the equivalent of separation or difference.
 They are equivalent, but not one and the same phenomenologically.

10 *Conflict is, in general, a new, peculiar synthetic thinking-
 consciousness much more far-reaching than this example of non-
 identity shows. Always underlying it is a positing as being and a
 partial coinciding of appearances and, on the other hand, the diver-
 15 positing of their being.* In the analysis of pictorial consciousness, we
 already spoke about this kind of thing. I remind you of the puppet
 example, of the conflict between puppet and real person. The two
 objects “are not compatible in being”.

Incompatibility is a new object, a third one vis-à-vis the objects
 20 that are presented as not being compatible. The opposite of conflict
 is oneness, compatibility. Objects that are the parts of an objectivity,
 objects that are given in consciousness of separateness, are compat-
 ible in the positing as being. They are possible together. Compat-
 ibility is once more a new object of the sphere considered here. It is
 25 characterized as the opposite of incompatibility, for the given incom-
 patibility of *A* and *B* is incompatible with the oneness of *A* and *B*. The
 presentation and the positing of, say, *A* and *B* given as juxtaposed, as
 conflicting with one another, by this very juxtaposition produces a
 conflict.

30 Once more belonging here, and related to the objectivities and
 objectifications emphasized as being new, are equality and inequal-
 ity, or consciousness of equality and consciousness of inequality. We
 also find coinciding and divergence here. While, though, conscious-
 ness of identity brings the apperceptions constituting the object to
 35 coincide regarding what confers upon them the status <of appercep-
 tions> precisely of these unified objects, precisely of these things, 285
 processes, individuals, this does not hold for the objectification of
 equality. Equal objects figure as separate. They do not, therefore,

admit of identification. Each one has its individuality, perhaps the same time, but its individuality in it. Each has other places, and so on. But, without prejudice to possible distinctness regarding individuality, oneness and coincidence obtain regarding the matter of the
 5 individuality, or any moments or parts of the matter. Every equality is equality regarding one objective constituent or another. *Disregarding their individuation*, “*they coincide*”, or they are just to be brought to coincide in consciousness of equality and, more precisely, in the intuition of equality. Regarding the diverging moments of the individual
 10 material, inequality obtains here. *And inequality also means distinctness or difference*. Obviously, in spite of this kinship, one must essentially divorce *difference as separation*, as non-identity and, on the other hand, *difference as inequality*. And, in addition, other concepts not belonging here, like those of discrepancy and disparity, as I
 15 already explained long ago in my *Philosophy of Arithmetic*.

Everything we have realized regarding consciousness of identity is to be realized for consciousness of conflict and oneness, for consciousness of equality and inequality. These are new objectifications that are present here and that are at times intuitive, at times non-
 20 intuitive, at times adequate, at times inadequate, at times perceptual, and at times imaginative in nature. Actual consciousness of equality can also be present here, for example, regarding an object given in perception and one given in the imagination and even regarding two symbolically presented objects. And, on the other hand, an empty,
 25 unauthentic consciousness of equality can be present that in no sense constitutes givenness of equality.

Closely related to consciousness of equality in which equality is objective is *consciousness of similarity*, in which is constituted a relationship of objects that agree generically regarding some
 30 moments, but do not agree in their specific differences, rather display “discrepancy”.

Another well-founded object of the group under consideration here 286 is the object *part and, correlatively, whole*, or more properly stated, the relationship between whole and part from which the correlative
 35 concepts draw their meaning. If we take a sensorial intuition in which an external object figures for us, then, in the sense of this intuition, as the object precisely referred to and seen in it, it may be a variously composed object, but the parts are not for this reason, for example, in

explicit acts, turned into objects in their own right, let alone grasped as parts of the whole object in the unique relationship signified by the words part and whole. In the simple perception that simply constitutes the object, there is no question of anything of the kind. Only
 5 when perception becomes the foundation of coordinating acts, only when we engage in accentuating, in objectifying for its own sake on the basis of the objective overall appearance selected and attended to as well for its own sake does the part come into prominence.¹

- But the segmenting off, the objectifying-for-itself, does not yet
 10 authentically yield the part. It is not truly a new object in its own right, but part of the whole. The dismembered α figures as a part of A in the integrating and linking apprehending that captures A and lays hold of α in A . The α is not, say, pulled out, as if it were only to be and to be referred to for its own sake, but it remains the same, though
 15 phenomenally and referentially highlighted for its own sake in A . Stated more precisely, a peculiar synthetic consciousness of coinciding links the A -perception and the α -perception. The representatives in the apprehending of α belong identically to those belonging to the whole A . Likewise, the apprehending of those representatives is “fit
 20 into” that of A . It is brought to oneness in its own right, but in partial identification. If one wants to say it that way, with the apprehending of A as a whole, it is brought with it into synthetic coincidence. And with this, the consciousness of apprehending α in A is constituted. So, if we adopt the standpoint of α , and vice versa, if we change the
 25 standpoint of the relation and the phenomenological ordering of the transition, then the apprehending of A develops as having α in itself. Present here is not just any experience of transition that phenomenologically brings the individual apprehending of α and the apprehending of A to oneness, but an objectifying, an essentially new style of
 30 apprehending is realized in which a new objectivity is constituted. We just experience the experience of transition, but do not refer to

¹ It may be that in apprehending the object, we apprehend it from the standpoint of a part, have really already accentuated this part in its own right. We look at the house. We especially look over the window, then the porch, etc. However, in the remaining whole, parts are also referred to along with it, but not referred to in their own right. Therefore, one can especially take this into consideration here. Does not individual apprehending belong to the essence of the constitution of things?

it as it is there any more than we refer to the presenting of α and the presenting of A when we experience them. Living in these presentations, we refer to the α , and we refer to the A , and in the experience of transition, we refer to, we see, we behold, we present the α as part of
 5 A , or A in the having of α . The part relationship becomes the object and is beheld here and, when whole and part are present in perception, is perceived. As in all other cases of those peculiar objectivities that we are concerned with here, it is a well-founded object, an object that can only be given on the basis of intuitions of founding objects
 10 and can only be given in a peculiar synthetic consciousness of oneness that is inconceivable <without them>, therefore, is grounded in such intuitions in terms of essential laws.

And, at once we see here (*something that we could just as well have realized for identity, conflict, equality, difference, similarity, and dis-*
 15 *similarity*) that two possibilities are *a priori* prescribed by the phenomenological circumstances, two possibilities of transition: a identical to b , b identical to a ; a equal or similar to b , b equal or similar to a ; a part of b , b part of a . These syntheses (this belongs to their essence) are accomplished in the phenomenological flow of the consciousness as
 20 a succession: one appearance, call it the a -appearance, is earlier; one, the b -appearance, is later. And, that too has objectifying meaning. “ a is similar to b ” and “ b is similar to a ” have different meanings, just as a part of b , b part of a , etc. The direction of the transition is prescribed. It is prescribed by the choice of the way of expression, and in doing so
 25 it is not a question of the presentations and of the flow pertaining to them, but of the things. Comparing the correlata, we see that, on the one hand, they are objectively different: *the “relations” are different* 288
relations. On the other hand, the different relations enter into a *certain coinciding of identity*: the “state of affairs” (state of affairs here as
 30 much as the “affair”) is the same—here, the “relation” is the same. “ a is similar to b ” and “ b is similar to a ” is *au fond* the same thing. Namely, the same state of affairs is apprehended in this way at one time and in that way at another time, and according to the circumstances, figuring at one time is the relationship of b in relation to a , with a as
 35 the preferred term of the relation, as the subject term of the relation, and b what is in relation to it, is placed in relationship with it. And, at another time, it is the other way around. Every “state of affairs” has different modes, is given in the form of different relations.

- What we have discussed then further holds for relations of any kind. The relationship of part and whole that we have dismembered in a general way can be understood as relationship of piece to whole, but also as relationship of internal, dependent moment to object: moment of color, of spatial form, and so on. From the component pieces and moments result the internal determinations of objects. The external determinations follow in succession and, accordingly, the external relations that, conceptually grasped, we express predicatively in examples like: *A* to the right of *b*, *A* bigger, more intense, brighter, etc., than *b*. Also, *a* temporally subsequent to *b*, *A* linked to *B*, to which, therefore, all inter-relations of parts of one and the same whole belong. Being conscious of two successive sounds does not mean being conscious that *a* is more intense than *b*, not even that *a* is temporally subsequent to *b*. Simple consciousness of succession is not synthetic, relational, consciousness.
- 15 *Following sounds succeeding one another does not mean putting one sound into relationship to another*, as when we say *a* is earlier than *b*, *b* earlier than *a*. Likewise, in experience, *a*, for example, is surely the more intense one. But, what is more intense only becomes an object in synthetic consciousness in which, starting from the standpoint adopted in *a*, the *b* is, as it were, looked at from the other side and the increase or decrease objectified. The what-is-more-intensive-compared-to-*b* then clings to the *a* as a defining moment and yet not as internally proper to it, and likewise in the opposite case.

- All such relationships are grounded in the relational terms, and when beheld adequately are to be grasped as belonging to them essentially in terms of essential laws. The twofold relation's being grounded in the essence of *a* and *b* as they are given in the unity of a consciousness viewing them together does not mean that the consciousness viewing them together contains the relationship really (reell). It contains only the ideal possibility, i.e., just the possibility grounding in the essence. The relationship's belonging to *a* and *b* means that grounded in their essence is the possibility of realizing objectifying apprehending in such and such a way in which the relationship concerned is given adequately. But, only in it is it constituted really (reell) as givenness.

All external relations can be apprehended as objects of thought resulting from the reasoned dismembering and synthetic combination of parts of one and the same whole. Underlying this is the unity of a

combination of *a* and *b*, and the relationship arises in the apprehending of one of the terms given separately in it and brought into combination as the main term, as term-in-relationship-to-which, and of the other term as related. The identity of the underlying combination and the ideal possibility of apprehending it in the twofold way grounds the identification of the state of affairs in both relationships. Both relationships are in essence the same state of affairs. They lay hold of the same thing (*Sache*) in a twofold form of thought. One can, nevertheless, still find a difference there between whole and combination in the fact that in talk of the whole, the accent is placed on an objectivity in which parts can be differentiated, but in talk of combination, the accent is on the terms that figure as objects in their own right that are, however, bound to one another, united through combination.

Oneness of the thing also underlies internal relations. In identity, the thing coincides with itself. Namely, two appearances are united in the form of identification. Likewise, in the relationship of part, the whole coincides with its part, but here the oneness is just internal oneness, the oneness of what is partially or totally coinciding with itself. It is not one thing and another thing combined into a whole, but <it> is united in itself in identification.

<§46. *The Difference Between Objects of Thought and Sensorial Objects, Forms of Thought and Sensorial Forms*> 290

Let us now stop for a moment. We have analyzed a series of closely allied objects of thought and thought objectifications and in so doing familiarized ourselves with them. Now, concerning them, we want to throw open the question as to *what constitutes their particular character and allows them to appear as essentially new in comparison with lower level objects and objectifications*. The following is then compelling:

1. The objects of thought are *well-founded* objects; their objectifications are well-founded.

2. *The lower level objects are sensorial objects*, meaning a certain primitive stuff of experiences, that we call sensorial, contents of colors, contents of sounds, printed contents, etc. and <that> have their sensorial fusions through temporal flow and possibly through pre-empirical extension, that experience apprehending. What is called

apprehending here is basically essentially different from the sensorial material. It gives the latter meaning, an objective relationship.

5 If objects are constituted, higher-level objects can then be constituted by new kinds of qualities of consciousness that themselves again have an objectifying quality. These new kinds of qualities of consciousness do not offer anything that would once again explain any sensorial contents, say, new ones as compared to those of the founding apprehendings, in terms of apprehension. *No new sensory material enters in. It is*
 10 *a radically new objectification* that is based on the simple objectifications given beforehand and that brings its objects, at least in our examples, to a new kind of oneness, to thinking-oneness, to the oneness of identity, of difference, of relation, and so on.

It may perhaps be said that what the higher level brings in newness surely on the other hand already has its analogy in the lower level. What is new is basically essentially different in all its content in comparison to what is sensorial, but not in comparison to what the apprehending of the sensorial brings in phenomenologically. The identifying coinciding is surely nothing basically essentially new, or not basically essentially new in all respects in comparison
 20 to that continuous consciousness of oneness that <reigns> in the plain thing objectification that truly, at least with respect to temporality, has its continuation, therefore, its coinciding. Hence, we have also spoken so far of oneness of identity, although it was not explicit, not the kind that we presuppose in every intuitive identity judgment. It seems that one may say that *apprehending contents may also be given in thought objectification, but not sensorial ones*, rather contents of the kind of moments already occurring on the side of plain apprehending, possibly forms of the combination or fusion of apprehending moments that, however, first stand out
 30 through segmentation and separate objectification and then function as contents of apprehending. In any case, something essentially new also enters in here inasmuch as, on the higher level, with the separate constituting of the objects lying below, the apprehending of the ones in relation to the others also occurs, relational apprehending in a certain sense.² In the transition from one apprehend-
 35

² Predication is, however, not always placing in relation.

ing to another, as we said, one term figures as the one from whose vantage point the situation of oneness is apprehended, and the other term as the one related to the first.

The new object forms constituted here are the thought forms.

- 5 *They are different from the forms of sensorial objectivity*, above all from the temporal form, which belongs ineradicably to the essence of every sensorial objectivity and of every individual objectivity in general, thingness in general, as well as from the spatial form, which is not of such universal significance, is limited to the world of the
- 10 *empirico-physical objectivity that it helps to constitute. These forms are, of course, essentially constituted through <a> consciousness of oneness, through <an> implicit consciousness of identity, and to that extent have kinship with thought forms, but underlying them is apprehending material that is either sensorial, or in a certain way*
- 15 *akin to what is sensorial.*

- Belonging to the primitive material of consciousness is the flow of time. Through it, sensorial contents and all further contents primordially interwoven with them become one and acquire form. This is not objective time, not time in the authentic sense, which first arises
- 20 through apprehending, through conferral of sense, through identification. It is a form i.e., as it were, still blind form, blind just as merely 292 sensorial contents, as they exist impressionally, are still blind. They are experienced, but if they are not apprehended, identified, brought to mind, do not mean anything. They are senseless.

- 25 Likewise for spatial form. The extension of visual sensations of the field of sight is not the spatial extension of the objects of the perceptual field seen. The pre-empirical extension giving unity to the sensations is still blind. It acquires meaning, mental vision, through apprehending and objectifying identification. The combination or
- 30 fusion of visual contents in the visual field of sensation (and so in every field of sensation in general) is grounded in the sensations, namely in their generic quality. For, one will surely have to say that only visual contents with one another, only tactile contents with one another, are and can be combined in this way, but not visual with
- 35 tactile, tactile with acoustical. In the fusions and forms of fusion, we therefore have peculiar blind moments akin to the sensorial contents, in any case belonging inseparably to them, that underlie the objectifying spatial apprehending.

- But, underlying thought objectifications are no blind contents of this kind as representatives at all. They are, as it were, purely mental in nature. Compare, therefore: We attend, on one occasion, to the sensorial unity of a visual display (disregarding what is objectively spatial) and, on another occasion, we focus here and there on sensorial moments and constitute a relation, the consciousness that one thing or another is separated, one thing or another is juxtaposed, and so on. And this: The thought forms do not belong inseparably to the sensorial contents, as if they were already eo ipso there with them, spontaneously! The sensorial form is necessarily there and there really (reell) with the contents sensorially united by it. The categorical form, however, subsequently joins what has been categorially formed. It can be there and does not have to be there. And, that carries over mutatis mutandis to the empirically appearing objects and their objective forms.*

- If the sensations in perception or some other plain objectification are objectified as things, then things arise for the consciousness. The things form units, combinations. In every thing, the pieces differentiable in it are united. Their qualitative moments, spatial (and temporal) material, are combined together, ground overall qualities of similarity, equality, of differences of intensity, etc. But, all that is prior to thought formation. It is all an interfused unit to begin with, and the objective unity of the object contains all the associations and fusions essentially. They are essentially and indissociably grounded in the combined object elements and object qualities, etc.

- In the interfused unit, we first gain a foothold in thinking while we differentiate, place into relation, bring to coincide, or to stand out, etc. The plain consciousness of an object now takes on new forms and with these new forms, new objectifications are realized. New level objects arise and objects that in themselves, in accordance with their objective sense, display forms: the form of the relational term as subject term of a relation, the form of the term related, the form of the relation itself in which both come together objectively, the form of identity and otherness, of equality and difference, etc. In this, we immediately see how, in the new forms, what is new does not lie in anything sensorial. What the underlying objectification has used in terms of sensorial, blind material survives and only just receives a new thought form, the specific thought form.

This thought form is none other than the *logical form*. On the other hand, the forms that already appear on the lower level as, as it were, mental forms (namely, that interpret the blind primitive material and its blind primitive forms to its full unity and produce the intuition or
 5 plain presentation of a spatio-temporal world of appearance) could be called the primordial ontological forms. To them belong the internally connecting forms of time, space, thing.

In the *Logical Investigations*, I essentially spoke only about the first, the logical forms and called them *categorical forms*. If by
 10 *categories*, one understands *the basic forms of objectivity* without regard to its changing matter, *then we have to distinguish the logical categories and the metaphysical categories (the categories of thingness) from one another*. The question arises, though, as to whether or not one still has to place alongside that the categories of
 15 pre-empirical being (what one often has in view under the heading 294 consciousness).

Since objectivity in general must be constituted in accordance with its basic configurations in corresponding basic configurations of objectifying experiences, we also speak of categorial formations
 20 in the apprehending of objectification, by which is to be understood precisely the correlate of the categorial objective form on the side of consciousness.

<§47. *The Function of Universality*>

25 <(a) The Universal as New Objectivity vis-à-vis
 the Individual Objects>

We now continue the study of the categorial of the logical level. I have already included identity, equality, relation in general, in the logical sphere; but the logical in the concise sense, in the sense of the λόγος, and of the κατηγορία, expressed in Latin, in the sense of
 30 predication, calls for an interweaving of the thought objectifications set forth up until now with a new, fundamentally essential form, *the form of universality, of the concept*.

Concepts, people are in the habit of saying, originate in the activity of abstraction. If one compares several objects of intuition that are the

equal with respect to any moments whatsoever, then through abstraction one can bring what is common to consciousness. Abstraction consists in disregarding the differences (abstraction from something) and, on the other hand, stressing what is common (positive abstraction). That is naturally a bad description of what it is one truly wants to describe. If two houses have a wall in common, then, according to this description, the wall would turn out to be what is common and, consequently, be the concept.

The wall is an individual object. The concept of the wall is wall in general, a universal object.³ Of course, I am using here the term “universal object”, which is for the most part abhorred by logicians. A concept, people say, is a universal presentation. Now, we shall readily see that one cannot speak of universal presentations without universal objects and that one cannot in turn manage with just any kinds of activities and results of activities “under the heading of abstraction”, but will have to acknowledge that, here too, it is a matter of a new objectification and a new objectivity corresponding to it, of precisely something that cannot be designated other than as a “universal object”. In any case, it is clear that the presentation of a wall common to two houses is not a universal presentation and it is not itself something common in the sense of concepts.

It would be different if we had houses having the same architectural form or having the same color, and so on, in short, objects having the same properties, or the same combination of properties.⁴ And, it is plainly such a thing that is aimed at in that description of abstraction. To account for it, many say, we have to divorce independent parts of an object, pieces, and dependent moments, moments of it that can be attended to in their own right, but not severed from it, or what essentially amounts to the same thing, cannot be independent in their own right. In comparing different independent objects (another word for this is “concrete”), one or another moment equally common to them emerges. We are then in a position to attend to it also in the

³ We must divorce the universal concept from an individual object in general (as well as, besides, universal concepts from objects in general), therefore, “an A in general” from the ideal object A.

⁴ One proceeds thus, as if properties were already given.

individual object and thus to make it into an object in its own right, while it, though, remains in its formation, is not severed from the object, and only becomes objective through the fixing of attention on it. The attention, the noticing in its own right of what cannot be *in concreto* in its own right is what constitutes positive abstraction. And, negative abstraction simply signifies that, when looking attentively, the remaining intertwined moments just do not enter in, that they are indeed conscious, experienced, but not heeded and referred to in this way.

Yet, this analysis, which essentially goes back to Berkeley, does not suffice either. It does not go very deep phenomenologically. The distinction between being-able-to-be-in-one's-own-right and not-being-able-to-be-in-one's-own-right is by no means phenomenologically elucidated here and is simply accepted in its muddled state. It is surely meaningful and justified, but how is it constituted phenomenologically? Furthermore, is heeding already objectifying? Does not heeding already presuppose objectifying, the intentional object of which then figures as what is heeded? To notice the house, the house must already be objective for me. It can indeed also appear without being what is attended to and, in this sense, referred to preferentially. It should above all, though, be said: If I see a house, or present it in my imagination, then I have the objectifying intuition of the house in which the house is an individual object. If I notice the red of the house that makes its appearance in and with it, then I have fixed an individual moment, a moment of an individual object. That, however, is not a universal. In every piece of the surface of the wall of the house genuinely appearing to me, I can focus on a red moment and in every one another red moment. And, likewise, if I collect several objects that are red, then each one has its red, and it is the same everywhere, but at the same time individually different and separate time and again.

It would be fictional to say here with Mill that I am only noticing the red and absolutely not the house and the other objects that are red, only of it and not of the different things am I conscious and, therefore, not of the individual difference either. The things and the separateness of their moments do not cease being conscious for an instant. That is already implied in the concept of the dependency of the property. There is no inattention to the point of unconsciousness,

or else that would be dissociation. Rather, each red thing figures as separated in actual fact, and a heeding of the red, however specialized and discriminating, would not make it into red in general, into the universal, if I just referred to it as this thing there as individuated. Individuation is, however, not a moment of the kind red itself is, which I could disregard as I disregard the figure in which the red is spread out.

And, it should in fact be said *that present here is a new, namely a well-founded, consciousness that in the beholding of the universal is constitutive of the universal object* that represents a basically essentially new objectivity. In the comparison, the red moment stands out here and there. It does not stand out as what is everywhere identical, what is common in the sense of identity, but as grounding identity and commonness. The red here and the red there are still separated and merely equal, but inasmuch as equal and absolutely equal, as we once wanted to assume, they ground the appearance of something identical particularizing itself in them. 297

We recently said that present in comparisons is a consciousness of coinciding, of coinciding on grounds of separateness. In separateness, several objects figure for the consciousness, each constituted in its own right in presentations. Coinciding, though, is identification, and identification is consciousness of one and the same thing. Consciousness on grounds of separateness signifies that captured in what is separated is something identical, one and the same object, namely, as what is identical in what is separated, or “with respect to which” they are identical. This red moment and that red moment are separated, but with respect to the red they are identical, and that is also what is signified by the proposition: Both objects are equal with respect to redness, to the property red.

The equality once again points up what the talk of both objects establishes, namely separateness as bearer of identity. But, constituted here in the synthesis of equality is the relationship of equality, which of course implies identity in the ways described and, consequently, a new object, the universal one. The separated objects are co-referred as bearers of the relation, as terms of the relation. In the transition from equal to equal (whether two or arbitrarily many, as they are presented in intuition in succession and transition), multiplicity can indeed be given, but only the universal showing itself in them be referred to,

so that the “in them” is not co-referred, as they are not themselves referred to, not set into relief by the singling out attentiveness as the subject matter, as it were, of the objectifying. Then, in looking from one to the other, the universal constantly stands before our eyes as
 5 constantly the same and one. We live purely in that consciousness of universality that holds sway in the coinciding and runs throughout the ever renewed coinciding.

Precisely the same consciousness of universality can also no doubt be constituted on the basis of a particular individual intuition. I see, 298
 10 for example, a red and, in the continuous intuition of this red, I refer to the red in specie, as idea,⁵ the red that always figures as the same in temporal continuity. I do not refer to the individual that appears there. I do not refer to the moment that is new from time phase to time phase. I do not differentiate the time phases by separating and I
 15 do not attend to the moment as such either. It stands out as their common color if I, for example, allow my eyes to wander over the different parts of the object shaped in such and such a way, but the separating and transitions are not picked up with it in the referring. Referred to is the red as such in the consciousness of oneness that is constituted
 20 on the basis of the consciousness of the individual objects that is changing continuously and in terms of content generally speaking. A peculiar consciousness of coinciding is present here, because what it grasps as one and identical, as something objective in identification that is continuous and soon discrete once more, does not constitute an individual objectivity, but a universal. At the same time, it is
 25 clear that as universality points to particularity, so consciousness of universality points to consciousness of particularity.

Authentic consciousness of universality of the kind that constitutes the givenness of the universal is well-founded consciousness.⁶ It pre-
 30 supposes consciousness of particularity, namely, when it is actually

⁵In the course, I have everywhere used and explained the expression ideating abstraction.

⁶But, well-founded in what sense? Consciousness of particularity is not *referring* of particularity. Here referring clearly completely parts ways with appearing and observing, with “giving”. Only the universal is referred to, in contrast to synthetic referring, where referring is grounded on referring.

to be given, an intuitive consciousness. *Of special interest here is that, for givenness, it does not matter whether the individual or particular is for its part given <in> the form of perception or in the form of fantasy and other figuration.* If we place a red in fantasy and a red in perception (and, if we compare several reds in fantasy, or in the imagination in general, it is then the same thing) in the synthesis of comparison, then, despite the different mode of givenness that they constitute, they ground an intuitive consciousness of equality and possibly of universality. And, the latter gives the universal red. We see it. We see it, whether it is a matter of identification on the basis of perceptions or other intuitions. It is the same universal. 299

Our speaking of essence is just a different form of expression, an expression having a primitive relationship to the particular object that “has” the essence. Everything conceptually graspable about the object, namely specifiable by internal predicates, is its essence or belongs to its essence. Furthermore, then, objectively considered, every universal is called an essence, an essentiality (*ein Wesen, eine Essenz*). The expression “universal object” is shunned, because object is a word preferably used for individual objects, even for things.

As for the word “concept”, though, presentation and objectivity are mixed up in this term. The presentation in which the universal or an essence is given can be of different kinds: intuition of essence in which in the givenness of essence is realized, or inadequate presentation of essence, or also universal meaning of words. From the logical point of view, concept does not refer to the particular meaning of the word, but to its specification, or also its correlate.

Naturally, the distinction between adequate and inadequate carries over to this new sphere of objects. If the underlying particular intuition is an adequate one and is based on a consciousness of universality that ideates an immanent moment of the particular, then the universal—the idea—is something adequately given. If it is a matter, though, for example, of an empirical intuition, like a house standing before our eyes, then this can only ground an inadequate consciousness of universality if moments not given in appearance enter into the consciousness of universality in the form of generalization.

Still to be noted is that here we have described the simplest cases in which the consciousness of universality as first level of a consciousness of thinking is directly based upon plain intuition. Universalization,

consciousness in which the universal becomes intentional, can be based over and over on given consciousness of universality. Universal objects can figure as particulars with respect to more comprehensive genera, and the latter again, and so on. Thus, number 3 is a universal, or else number 3 a particular vis-à-vis numbers in general. Quality is a universal vis-à-vis color, color a universal vis-à-vis red or blue. And, red as a specific shade of color is a universal that, as least specific difference, has individual particulars under it.

<(b) The Universal in Its Relationship to the Particular.
Universalities of Different Levels>⁷

With the universal as objectivity, the concept of property first develops. In the consciousness of universality, a new object consciousness is constituted vis-à-vis consciousness of the particular, which at the lowest level is individual consciousness. As it, in general, has the capacity to place object and object in relation, a synthetically relating act can also place the universal and corresponding particular in relation. The objectively constituting relationship is *akin* to that of part and whole and yet fundamentally different. The *universale* is not *in re* (is not *ante* and *post rem*), provided that we understand the *in* in the same sense as in whole and part. The thing does not *have* the conceptual universal *within itself*, but the concept belongs to the thing as its “essence”; the thing has its determination, its properties, in the concept. Plato spoke of the difference between the individual-thing relationship of having and belonging to, of μένεις and κοινωνία.

The relationship between individual object and property is, in this regard, in the old phraseology, essentially different from that between species and genus, like red and color. The involvement of the genus in the species is such that one will not be able to substitute a corresponding part relationship of moments there. An individual object, for example, a red ball has, on the one hand, its pieces, meaning it is open to possible division that in turn produces individual objects that

⁷ Compare Appendix A XV.

in the whole form, however, an unbroken unit. Another approach to dividing is into moments that as a block make up the material of individuality. A universal corresponds to each moment, in the first place, a universal of least difference. The ball's form, the ball's coloration
 5 spread out over the ball's form are interwoven and interdependent moments, *namely they are really to be approached as parts, though* 301
not as pieces.

Here, we have to distinguish a differentiation that is grounded in the interrelationship of moments and that runs parallel to the divid-
 10 ing into pieces. Corresponding to the dividing into pieces of the spatial form, each piece of the ball has its red moment and, on the other hand, its form moment. Belonging to each moment of form is the corresponding universal form, to the whole ball, the ball form that belongs to the ball as property. Likewise, the coloration
 15 which, though, as qualitative covering over of the ball, has and presupposes the property ball as substratum. The property ball essentially presupposes some qualitative covering over, but the coloration of the ball not only essentially presupposes some spreading out over, but precisely spreading out over the ball.

20 Further universalization is present when, instead of coloration, we take color, namely the specific color. If the red is phenomenally "the same" everywhere, then in going from piece to piece, from red moment to red moment, we can capture something identical independently of the shape: the essence red, having one shade or another,
 25 this or that brightness, but all that taken as a unit. Does this factor common in every particular moment have a part moment as correlate that corresponds to it in the way that, say, the moment of shape in question does to two sections of ball completely alike in extension and shape? And, even when we take different shades, or even
 30 colors, one red piece of the ball, one blue, and we form the universal color, then red and blue naturally have something in common, but can we speak of a color moment put in the red and blue that would be of the nature of a part? Surely, the consciousness of universality is grounded in the essence of the red and in the essence of the blue.
 35 It belongs to their essence for both to belong under the genus color, *but the talk of corresponding parts in intuitively given objectivity runs the risk of ascribing a phenomenological atomization to it not to be found in it. We have only to point phenomenologically to the*

- levels of consciousness of universality.* The same intuitive givenness essentially grounds different possibilities of comparison and specific identification. Depending on their orientation, we behold different sides and properties specifically standing out in what is given that 302
- 5 precisely are given and stand out in the consciousness of universality concerned. Ever new consciousness of universality can in turn be based on the universality beheld and thus at a higher level. In this, the individual intuition necessarily remains the substratum, and its object constantly undergoes its determination of essence through
- 10 the higher or lower universal, just as it is looked at and placed in relationship with the universal thrown into relief. The object has the form of a ball, is uniformly carmine red, but expressed in more universal, conceptual terms, the object is also round-shaped, red. More universally, it is colored, sensorially qualitatively determined. And, the
- 15 relationship of that thing to these more specific or more universal properties is different from the relationship of carmine red to red in general, to color, sensorial quality. The classification of species under genus and the determination of a particular through its properties are to be kept separate.
- 20 With the defining universal, the property in the broad sense (whether the characteristic of the individual object, or the genus as determination of the species), we first have the *full state of affairs in the logical sense*. The universal figures as something belonging. For example, this is white, namely this thing has the color white. It
- 25 is *quasi* a partial identification, but yet not in the authentic sense. It is not an identifying of a moment of an object with the whole object in the manner of a genuine relationship of part or a genuine having. *The object does not have the property in the authentic sense as a part within itself*. Within itself, the object has its parts and its
- 30 moments, among them the moment of coloration. In the associating consciousness in which the property is constituted, the universal white coincides with the coloration moment and is associated with the object though the medium of this coincidence, determining it by this means. *Authentic having obtains <between> the object and*
- 35 *its moment of coloration*. This moment is, however, the bearer of a purely conceptual identifying. The consciousness of white, which is a consciousness of universality, lies in the white moment and particularizes itself in it. And, in this particularization, it is associ-

ated with the object. The object is white. It has, to paraphrase, a constitutive moment that is the particularization of the universal white. The referring is not to the object's having the moment, but to the fact that it "has" whiteness, namely has a "particularization" 303
 5 of white in itself.

We have to distinguish between different gradations of definiteness here, though. An ideal case or limiting case would be that in which the moment is a precise particularization of the concept, namely in such a way that it is absolutely a particularization of
 10 it, no longer needing and liable to further determination. Let us take, though, the case in which, say, an object is apprehended as "colored", an object that is, say, red. The color specified, one shade of red or another, is not grasped conceptually with this specification, but as color. And, color leaves open whether it is this shade
 15 of red, or that, and whether it <is> a shade of red or blue or green, etc. The coinciding of the universal with the moment of coloration intuitively present is in a certain sense imperfect here. What is specific about the red is not grasped through the universal color. It underlies it, but it might just as well have been blue. If we grasp red
 20 as red, then the moment is specified in full determination, as it is there. If we grasp it merely as color, then we do so only inasmuch as this red establishes equality and oneness with blue and other lower species. We cannot, of course, divide and juxtapose: "Red is a color, but red is the sum of what is peculiar to red as red and of
 25 a 'color' in addition, which red has in common with blue". On the contrary, figuratively speaking, hiding in the red as red is "color" too, for talk of parts always suggests separation and combination to us, which is not to be found here. Still, we must say that distinctive grades of perfection of conceptual grasping are present here,
 30 depending on <whether> the intuition is associated with a least difference or a higher species and genus.

The more universal the concept applied to the intuitive moment of the object in identifying and particularizing is, the emptier the determination, the less specifically it grasps the moment, the less
 35 specifically the object is characterized by it. Every degree of universality points to other ordered series of possible comparison and identification. Red points to the shades of red, color to the different series of colors, sensorial quality to the different sensory fields. Essential

common factors are always present to be beheld in the specific consciousness of identity that we call consciousness of universality. The concept always finds its particularization in the moment of the intuitively given object, and the particularization is given in such a way that the universal coincides with the moment. But, the coinciding has different degrees of fullness and emptiness and places the moment within a narrower or broader variety of possible identifications. It lays hold of more or less of its full essence. However, a good deal of figurative talk is involved in this. Fullness of the moment does not, however, in turn signify that the moment, for example, the coloration, is a sum or combination, however select, that <it> concerned a great variety of part moments, of which the more universal concept grasped less specifics, the lower concept more, or left its imprint in the form of "particularization".

15 <§48. *Further Functions*>

<(a) Indefiniteness, Particularity, and Universality>

New modes of objectification arise through new functions, thus above all the *function of indefiniteness*, with which the function of universality is essentially connected in a new sense, in the sense of *universal universality*. *Universality and particularity* contrast in a way that is to be distinguished from the contrast between definite particularity and specific universality.

The definite object that figures in intuition is constituted in it, the simply giving, individualizing intuition, as this there. If an ideating abstraction (therefore, the abstraction of some moment and the ideating fixating of it as a specific essence) is based upon this, then we have a new object, precisely this essence. In determination by means of this essence arises the further associating objectivity, this there is white; this figures as determined by whiteness. The object can, though, figure in intuition without being referred to as this there. Of "sole interest" to us is that in general something white exists. In other words, a *consciousness of indefinite apprehension of an individual, the new kind of consciousness of anything whatever* is based on the intuition.

- And, moreover, the predication can change into attribution, both when it refers <to> a definite subject presentation and when it refers to an indefinite one. The object is determined as white. The object in its determination, as the one determined in this way, becomes the new subject-object. The presentation takes the conceptual determination in it: This thing is white, this white thing is round. Something is white, a white thing is round. This modification can always be set up anew: this round white thing, a round white thing, and so on. There, we have new categorial forms forming objects mentally in new ways and thereby constituting new objects of thought. With the "one", "something", particularity enters in, and states of affairs of the kind "something is white", "a white thing is round" are particular states of affairs. The function of particularity contrasts with that of universality. We refer particularly to some thing as being, say, white, to some body as being heavy. Universally meant, however: all bodies are heavy, meaning, a body in general and universally is heavy. A triangle is acute. A triangle in general has as sum of its angles two right <angles>. So far, we have equivalently: there is an acute triangle; here: every triangle, a triangle as such, has as sum of its angles. ...
- Universality presupposes indefiniteness. An indefinite presentation in general necessarily has the form of indefinite individual presentations and that of presentations universally embracing all particulars in indefinite ways. Naturally, that is expressing it in other terms. Already hidden again in "all", in "embracing", is the inexpressible, ultimate thought of universality that is constituted precisely in a basically essentially new consciousness. *This universality that is associated with the indefiniteness and is the opposite of particularity is not to be mixed up with specific universality.*

- The species red is that beheld, or to be beheld, identically in various reds. All connection with indefiniteness is lacking there. If we say, though, a red in general (universally), there we have an entirely different thought, the thought of totality and in that we have a relationship to an indefinite particular. Judging specifically, we can say: Red is a color, judging universally, though: Everything red is colored.
- And, we see that both are closely connected through essential laws, as follows from what we shall say here: Because red is a color (the essence of the red implies color as genus), then any particular that is red must also be colored.

<(b) Conjunction, Disjunction, the Difference
Between Singular and Plural. Plural Universality
vis-à-vis Unconditional Universality>

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Additional functions intertwining with those described are *conjunction*, *disjunction* and the *difference between singular and plural*. Realizing a presentation *a* and a presentation *b* at the same time, or one after the other, does not yet amount to realizing the presentation *a* and *b*. A peculiar synthesis is present here that not only connects both presentations in general, and not only refers to both objects in a consciousness presentationally, but refers to them “together” as “both”. With conjunction, a new categorial objectivity is constituted: the group, the aggregate. Just as all categorial functions can be based upon an arbitrary objectifying lower substratum, so these can also. All objectivities can be collected: independent and dependent ones, individual and general ones, things and states of affairs.

Contrasting with “*A* and *B*” is the disjunctive, one of *A* and *B*, one of the two. Naturally, *A* can have the form α . Therefore, we have an α and a β . Collections can also occur in predicative syntheses. And, two kinds of predications result here: authentically collective ones, where the collective is a subject–object, and distributive ones, where the predicate is not a predicate of the collective whole, but rather is connected to each of its members, but in an act. If we speak of a pair, of a plurality, of an aggregate, of a cardinal number, then those are qualifications belonging to the collection as a whole. Especially important is, though, the plural form that affects predication. For example, Socrates and Plato are philosophers. Implied in this is, Socrates is a philosopher and Plato is a philosopher, but by no means merely this. Both Socrates and Plato are thought as a unit, collectively. And, at the same time, both states of affairs are thought as a unit. Again, both states of affairs are not simply thought collectively, as when we just say, Socrates is a philosopher and Plato is a philosopher, whereby the collective union of Socrates and Plato would be lost and with it the plural too. Rather, we have connected a dual shaft of predication to the unit of the collection. The qualification is multifold, but coherent in its multifoldedness. In a connected dual shaft, it refers to Plato and to Socrates. With it, the forms of indefiniteness are connected together: an *A* and a *B* are α , two *As* are α , some *As* are α .

- The form “all A s are α ” immediately occurring to us here is, however, much more complicated. It includes the idea of double negation: not A may be excluded. In intuitive form, it presupposes a relationship to a complete aggregate of given objects exhaustible by going through and combining collectively, as when, for example, we speak of “the” trees of a garden seen. The multiplicity of trees that are given in individual apprehendings and collectively gathered is grasped indefinitely as a multiplicity, as one tree and one tree, etc., each element of which appears determined plurally as tree, and this multiplicity is determined further on, not as multiplicity of trees in general, but as that of trees of this garden such that no tree of this garden is to be passed over. A complicated predicative determination through double negation, therefore, enters in there, the closer analysis of which would not be possible at this point.
- Essentially different is the meaning, as I must immediately add, of the same form of speech, “all A s are α ”, in cases in which unconditional universality, purely conceptual universality, is present, as when we say that the sum of the angles of all triangles is two right <angles>. The form of speech is plural. The true meaning is, though, not plural. All triangles is not a multiplicity that could be apprehended as a real multiplicity, as a complete collection. The true meaning is this: A triangle in general, as such, has as the sum of its angles two right <angles>, and triangularity excludes not having as the sum of the angles. The plural functions linguistically here and it prompts a thought of multiplicity and it represents the thought in the image of a complete set in which the predicate is always found, and nothing is found not shown by the predicate. But, this is only an intuitive image that has become the etymon of the purely conceptual thought, which refers not to the actual exclusion of the contradictory predicate, but to that grounded in the conceptual essence.

<(c) Negation>

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- Judgments about a totality, or states of affairs about a totality accordingly already presuppose the *function of negation*. With plain identification without conceptual determination, it already enters through conflict, in the consciousness of non-identity. If we grasp

an object of intuition and we identify it with a person Hans known objectively to us in the form of a new presentation, say, a memory presentation, then we have: This is Hans. Coinciding enters in. A tendency toward coinciding, an overlapping, an entering into coincidence may, though, first be present, and then conflict enter in. What is given or posited in another intuition or presentation enters into conflict with the intuited This. Here, the relationship between the object and the one conflicting with it comes to the fore, namely, the latter is not Hans. The latter is the subject term. Likewise for conceptually determining predications. This paper is white, this bench is red, this bench is not green. The property green is linked with the bench means the presentation green is posited there in union with the presentation bench, the bench presented as green, but the green presentation does not fit in with the unity of the intuition in the sense of oneness, simply constituting the object, but in the sense of the conflicting overlapping, in the sense of disunity. The consciousness of universality constituting itself upon the conflicting green moment now becomes negative property consciousness. Green as species does not enter in as determinant in the bench presentation. The bench does not figure as green; rather it is not green. Green becomes the negation of a property, the opposite of a determination. The “is not” expresses this circumstance, the attachment that the subject experiences in this associating consciousness as a result of the “green’s” entering into conflict with it with respect to its color content. So, belonging to every positive determination and predication is a negative one. Both are perfectly equally justified, just like identification and differentiation. Positive classification is preferred as compared to negative exclusion only when the latter presupposes the intention to coincide as classification. The subject captured⁸ in its self-identity, the bench that in the presentation is red bench, is at the same time being presented as green and resists, so to speak, against this through conflict on the strength of its essential content.

To be well differentiated is the negation of an affirmation with negative predicates and, in connection with that, the transformation of the rejection of a predicate into the attribution of a negative

⁸The capturing is to be kept in mind.

- predicate. Or also: To be differentiated <are> the negation of a predicate and a negative predicate. A new well-founded act can be constituted on the basis of a negation. Instead of the bench is not green, the bench is something that is not-green. The red bench is characterized by the fact that it conflicts with green and in indeterminate apprehension is precisely something that is not-green, and in this, the bench itself is determined as being something that is not-green. The predicate not-green is then not negatively, but affirmatively associated with the subject. We have an affirmative judgment (state of affairs) with a negative predicate. These analyses put an end to many false theories about negation, closer criticism of which I cannot enter into here.

- The function of negation can obviously be associated with all the functions detailed up until now. Just as identification underlies all of them, differentiation, consciousness of conflict, can also underlie them. We can, therefore, understand forms like “an *A* is not *B*”, “some *As* are not *B*”, “2, 3 *As* are not *B*”, “an *A* in general is not *B*”, etc.

<§49. *Existential States of Affairs*>

- 20 <(a) Fulfilment, Truth, and Being>

- We shall now look at a new group of states of affairs or judgments: *existential states of affairs*. There is a narrow concept of existence that exclusively concerns what is real, where real existence refers to the actuality of what pertains to things. Otherwise, there is a broad concept that applies to every objectivity, everything that figures as a subject, about which something can be stated as a subject, for which questions about being and not-being can also be thrown open. That is the concept of being in the broad sense. For example, mathematicians speak of the existence of a solution to a given equation, of the existence of a function defined in such and such a way, etc., where it is not a matter of things, processes, of realities in general. Here, we have to reflect upon the broader concept of being.

Let us again start with identification. Two presentations enter into oneness of identity in synthetic identification and ground the

consciousness: that is the same, the object of this presentation and of that presentation is one.

- 5 A special case of identification is *confirmatory, verifying identification*. And, again that identification in which, while coinciding with a corresponding belief by identifying, a presentation⁹ appropriates the quality of validity to itself and the quality of being to its object.

- Belief is in itself is a position-taking, is a valuation, namely valuation of what is presented as being, but without the “as being” being presented in a new presentation. It is a *quality grounded in the presentation*, nothing without an underlying presentation, not conceivable without such a thing. The actual belief is an impressional quality; the valuation is really performed. On the other hand, the experience of the valuation is not givenness of value. In the impression of a belief is value intention, and belonging to its essence is to be open to, or
15 to have to be open to, “fulfilment” or disappointment. Let us reflect upon what that means.

- Belief aims, as it were, at something. How is that manifested? Belief is valuing, position-taking intertwined with the presentation, or better, saturating it. The object is not just presentational.
20 It figures in its own manner, in the manner of being. But, it is not therefore given in the manner of being and is not in general given by it. For, givenness in the authentic sense is givenness of the object itself. And, if we remove the “being”, then only appearance-givenness remains, which is not real givenness.

- 25 Perception is the act that gives the object itself, perception as full perception. The quality of what is self-given characterizes perception, but not yet fully so. Belonging to the essence of this quality is that the consciousness of self-actuality grounds <a> position-taking, namely, that what is given figures in the quality of being, i.e., in the quality of
30 believing, unless a consciousness of conflict “cancels out” the believing, as, for example, in the consciousness of a hallucination.¹⁰ We have already spoken about that. Essentially belonging to adequate perception is the impossibility of a conflict and the necessity of the believing,

⁹A presentation. Here, it is a “position-taking” act, a deliberating question, a doubt, an unwarranted expectation, surmise. And, with that an “intellective, objectifying-position-taking”.

¹⁰But, that too is a “position-taking” and not just the intact belief.

and this belief is not only valuation as being, but also givenness of being. The value is not only valued, but is value that is beheld and given.

- 5 Inadequate perception is different. What constitutes the difference in one case and the other? In inadequate perception, we have interwoven unauthentic and authentic perceptual appearing.¹¹ Belonging to it necessarily as perception is a position-taking, a valuing, that points beyond what is appearing authentically to what is not-appearing. In going from the given perception to new perceptions that are to make
10 the object appear from other “sides”, either fulfilment or disappointment can occur.

- Let us look at the case of fulfilment. With respect to apprehending, fulfilment is an identification, however, not only that, but also a *verification of the position-taking*. The unauthentically presented
15 objective moments occur in the fulfilment process in the quality of givenness, and this quality confirms the original belief in accordance with the intentional moments overshooting the original givenness.¹² In advancing from perception to perception within an essentially coherent context of perceptions, the belief acts or belief expectations
20 are confirmed over and over, and with this an ever more far-reaching consciousness of givenness of the object is constituted, i.e., a consciousness of its being as an ever more fully realized consciousness of being.

- Simple belief is presuming of being. Fulfilling consciousness, 312
25 fulfilment of the belief intention is fulfilment of this presuming, is making full use of “value” posited, is bringing about full, authentic givenness (better, verifying givenness) of the object. The object is then not merely presented, not merely posited with the quality of being, but it is “really” there and given. It is not merely given in the

¹¹ That is not correct. Authentic perceptive appearing is not adequate self-givenness either. It is precisely continually appearing. What is authentically appearing points to the same thing, but something appearing differently, first of all, again to something appearing authentically.

¹² But, not noticed here is that, in going from trace to trace, verification also takes place in connection with the authentically appearing and trailing off moments of the object.

sense of intuited, of appearing, but it is “reality”. It is verified, or figures verified as given reality. The “being-real” is also given in and with the givenness of the object.

- The following is to be kept in mind here: We have consciousness
 5 of givenness when we perceive and have it <to> an ever more far-reaching extent when, fulfilling belief intentions over and over, we advance within the context of the perceptions. When we speak of “reality” or “being-real” (simply of being in the true sense), though, we have *in view the contrast with “merely being-presented”, or*
 10 *merely being-believed*. In this sense, we can already contrast the particular perception and <the> continuity of perceptions in the synthesis of the unitary perceptual complex (in the “context”), so far as we think about the fact that in the particular perception also, only what comes to fulfilling givenness in everything following afterward in
 15 the context is referred to. Or, we have an imaginary presentation,¹³ or a symbolic presentation in view, namely an imaginary belief, an imaginary consideration, or any other consideration, question, and so on, and then think of these placed in fulfilment by a corresponding perception or perceptual synthesis.
- 20 Various presentations can come to be identified, so far as, in terms of their meaning, they refer to the same object, but the *object’s being* does not thereby come to realizing consciousness, its reality. That occurs in full, authentic form *where the presentation coincides with the corresponding perception giving the object.* 313
 25 *In this fulfilment synthesis, the presented object figures as real, as having ontological worth.* And, on the other hand, if we relate the presentation to the perception and make statements about it, then we say the presentation is a correct, valid presentation, the possibility of fulfilment in a perception is precisely its due. In most cases
 30 here, “presentation” does not refer to the contingent individual act,

¹³ Completely free imaginings are, though, excluded since their objects are not to be fulfilled, have no relationship to reality. One could still nevertheless say: Nothing in reality corresponds to them. But, if a similar object is found in reality, can I always say whether it is the same or not the same? But, only if some sort of positing of reality is included or attached can I establish a conflict or unity. Some sort of positing must, therefore, always be there.

the temporally determined particular, but the specific essence: the appearance determined in such and such a way that could be given as the same countless times.¹⁴

5 And likewise, it is not a matter of this perception as a *hic et nunc*, say perhaps in the psychological sense, but in this context, we see the validity “of the” presentation, its cogency. It concerns the object that precisely is figuring, that is itself there, is given in existence (*Dasein*). *Validity of presentation, therefore, has its correlate in the being of the object presented.*

10 Fulfilment can also be quasi-fulfilment. If we make the transition from simple presentation¹⁵ to the belief act, to conviction, then that already gives a consciousness of being “that is real”, but just not authentic. The belief is really mere aspiration. Only its fulfilment leads further and to productive consciousness of givenness
15 and reality.

Memory can also act as fulfilling belief consciousness, so far as it is precisely a question of what is past that is posited in the belief or merely presented. Finally, it must be said that everything discussed holds *for consciousness of objectivity of any kind.*

20 The same objectivity, for example, a universal, can be given adequately or inadequately. It can be presented intuitively and symbolically, presented directly and indirectly, likewise. A universal that I present symbolically proves to be actual in fulfilment by a consciousness of givenness, i.e., ideating abstraction, and constituted in fulfilment with respect to the object presented (presupposed, assumed) is
25 the consciousness that it is an existent, an obtaining universal. And, so it is everywhere.¹⁶ 314

The manner of the fulfilment is, moreover, always prescribed by the essence of the objectifying consciousness concerned, the presentation of an individual object. For example, positioning the object
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¹⁴Then, the whole context would also have to be specifically considered. The individual of the *haeceitas* is naturally not graspable in that, but underlying is a principle of validity. Therefore, this whole remark is too limited, and the matter is not that easy to grasp.

¹⁵What does that mean? Any positing of *Dasein* at all! What kind? Also presupposition, apposition, etc.

¹⁶A presentation as really simple presentation cannot be fulfilled.

in a reality-context or belief it is an object, etc., is fulfilled with the coinciding in a perception giving the object as being. The perception is fulfilled in the context, in the continual synthesis of perceptions that “gives” the same object from all angles. The fixed order sequences in this context essentially belong to the fulfilling. Only by following their lead can the progressive consciousness of being possess and acquire the quality of continuous fulfilment, verification of the “there it is in reality”.

One can perhaps say that a continuous fulfilment consciousness already lies in every adequate perceptual consciousness itself. It is necessarily a continuous consciousness, and *lying in this continuity of identification at the same time is continuity of fulfilment of the belief intention*, which runs through all phases and is verified in all of them.

If the presentation is indirect, then it is fulfilled in the sequence of levels that this indirectness prescribes for it. The act that lays down the “it is really so”, the existing object itself as the same one that was referred to in such and such a way, and lays it down as such in the fulfilment synthesis, is not only the act completing the last level. Rather, the identity of what is referred to and given as the same one that was referred to there in such and such a way runs through the sequence of levels of fulfilments prescribed and is precisely only completed in the last level. So it is, for example, to cite a complex case, with the fulfilment of the thought belonging to a number definition. The simpler cases are already complicated here. $4 = 3 + 1$, $3 = 2 + 1$, $2 = 1 + 1$. The fulfilment must continue following the lead of this sequence. Similarly for abstractions of higher levels.

With these analyses, the essentially interconnected concepts of being, subsisting, truth, validity, correctness are analyzed. The universal concept of being that we have obtained is that of the $\delta\upsilon\ \omega\varsigma\ \acute{\alpha}\lambda\eta\theta\acute{\eta}\varsigma$ in Aristotle’s sense. Being is true-being. Existing in the sense of what is real, of what is existing in objective temporality is *Dasein*, existence in the ordinary, narrow sense. For categorical objects, we prefer to speak of obtaining, especially for states of affairs. Here, talk of truth is, though, also applicable, namely, in the concrete sense. A state of affairs is something true. Corresponding to the state of affairs is the state of affairs-presentation, the act of the judgment that something is this way or that, *S* is *P*, the paper is white,

and so on. We assert its cogency, correctness, namely with regard to fulfilment in the corresponding verifying intuition. This fulfilment is the Evidenz of the judgment. Since this agreement is grounded in the essence of synthetically bound acts on both sides, on one side, 5 the essence of the judgment, the judgment in specie, or the proposition in specie arises through ideation, on the other side, *truth in the sense of the essence of the intuitive givenness of the state of affairs*. That the judgment is true means that *corresponding to it is truth; it accords with the truth*. Therefore, truth also signifies the agreement 10 itself, namely the agreement (*adaequatio*) of the proposition *S* is *P* with truth in the previous sense.

This also sheds light on judgment-forms relating to truth and being. We understand existential propositions, propositions of the form “*A* exists”, “*A* is”. They have their obvious correlate in “*A* does 15 not exist”. For, like every identification, fulfilling, verifying identification also has its correlate in differentiating on the basis of a conflict. Fulfilment is the opposite of disappointment here. So, just as “*A* is *B*” is the opposite of “*A* is not *B*”, “*A* is” is the opposite of “*A* is not”. We also understand the use of the same word “is” in relational and qualifying judgments and in non-qualifying, existential 20 ones. Both cases indicate an identification, something to be grasped in an identification. However, we understand that the “is” does not express exactly the same thing in both cases, that therefore, say, the concept of existence is not contained in the qualifying, the categorical, 25 judgment. We moreover understand the basic error of Brentano who believed that the “is” expresses the belief belonging to the essence of the judgment and the “is not” the unbelief. If we count the position-taking of belief as part of the judgment’s essence, then we have to distinguish between the belief and the what of the belief, the meaning 30 of the judgment. The little word “is” belongs to the latter, though, not to the moment of the belief. The belief embraces the whole content believed there and is not expressed in a special way. 316

Judgment forms very closely related to existential judgments are forms stating truth, for example, “that *S* exists, is true”, “that *S* is *P* 35 is true, is false”. Instead of simply stating *S* is *P*, we can make the proposition itself into an object and state its agreement with the truth, its coinciding with the truth to be seen in the Evidenz belonging to its essence. According to our analyses, Evidenz and truth stand in

precisely the same relationship as adequate consciousness of givenness of an object and the object itself. And, here truth is a universal object, an essence, but Evidenz is an experience.

5 <(b) Consciousness of the “It Is Real”. The Need to Broaden
the Concept of Perception>

In the last lecture, we left off with the analysis of consciousness in which the existential state of affairs, the objective correlate of the existential judgment comes to givenness. This analysis essentially coincides with the phenomenological clarification of the concept of
10 existence and the concept of truth.

We were led back to the examination of a peculiar kind of identity consciousness, consciousness of fulfilling identifying. Not all identification gives consciousness of the “it is real”, consciousness of being-true, of the ὄν ως ἀληθής. It is once again a question here
15 of a peculiar kind of objectifying that, like all objectifying, can be realized in an adequate and inadequate, an authentic and unauthentic form.

Primitive consciousness of the “it is real”, that in which the realness is self-given, perceived, occurs when a simply impressional
20 presentation,¹⁷ whether symbolic or intuitive, enters into coinciding synthesis with a corresponding perception, therefore one spontaneously displaying the same object, namely, a perception the full sense, a perception, therefore, with uninterrupted, undisturbed belief quality that displays the, so to speak, existence-belief belonging to the
25 perception’s essence. In this synthesis, the simple presentation of the object stands in contrast to the perception of the object. In the latter, the object figures as self-given, in the former, as simply thought, simply in mind, simply referred to in some way (δόξα, or something kindred). In the transition, the object turns out to be not simply presented,
30 referred to, but to be as it was presented, really existing.

Naturally, that is, though, simply reflective expression. Living in the synthesis of fulfilment or, what is the same, carrying out a

¹⁷What is a simple presentation? Naturally, an objectifying positing, apposition, claim, presumption.

- cognitive act in the concise sense, we have a presentation of the object, and then take it to be true (*nehmen ihn wahr*) and have the perception (*Wahrnehmung*) coinciding with the presentation, but the presentation is not what we are looking at, no more than the perception and coinciding are. They are objects of our consideration in the phenomenological reflection that comes afterward, at the end. Living in the consciousness of coinciding, the objectivity of the coinciding is what stands before our mind's eye, therefore, the object coinciding with itself, turning out to be reality in the coinciding with givenness.
- 5 It figures as existing in the simple perception of the object, but with that we still do not have any standing out of object and being and, above all, not the "really" that contrasts with "merely presented", "merely thought", "merely referred to". Only when the same object as the same is not merely perceived, but is presented otherwise does
- 15 the quality of being come to the fore in the synthesis of fulfilment as truthmaking, setting forth reality, and intuition bringing. That does not keep the perception that acted as fulfilling from itself admitting of further fulfilment again, from itself acting as mere presentation again, as mere referring vis-à-vis a new perception in which it is
- 20 corroborated, so that a fresh, vaster consciousness of the "it is real" 318 arises. This is the case with the incomplete and over and over again only one-sided isolated perceptions of an external object. In the synthetic context of the perceptions bringing ever new sides¹⁸ of the object to givenness, intention is fulfilled over and over again from a
- 25 new side and in this way sets forth the consciousness of the reality, the existence of the object referred to in an ever vaster degree.

- Besides, the whole discussion concerns not just external perceptions and corresponding presentations, and not just sense presentation in general, but all acts in which objectivity is constituted, whether the
- 30 acts are, therefore, well-founded and the objectivities those of any higher level whatever. For them too, we have, and this belongs comparatively to the idea of higher-level "objectivities", the distinction between merely presenting, merely referring and, on the other hand, the corresponding givenness, therefore, perceiving. And, thereby, we

¹⁸ Not just the "new" sides!

also have for these acts the fulfilment syntheses and in them the consciousness of reality and truth.

- Extending the concept of perception correlatively to extending the concept of object is a move of the greatest significance, but also one
 5 indispensable for understanding knowledge. The narrow meaning is naturally preserved for the narrow perceptual and intuitive concept, but we must recognize and we must see that other things besides
 10 sensible objects, like sounds, colors, and so on, likewise, things and processes, like houses, wind blowing, etc. are also perceptible things, namely perceptible things in the sense precisely appropriate
 to objects of the understanding. A state of affairs, say, an individual, categorially qualifying one like “this rose is red”, can be symbolically thought, as when the expression gives the presentation through
 15 its indicating intentions, the expression can be presented in the imagination¹⁹ and can be perceived. Ordinary language already speaks of perception here: I see that this rose is red. But, it is clear that what
 is indicated in the expression’s constructions and verbalizations, the 319 form of the adjective, the conceptual moment situated in it, the form of the “is”, and so on, cannot be seen in the sense that the rose is seen
 20 or even can be seen in the sense of simple sensing, as the moment in which the redness present in the appearance of the rose is sensed. In the rose apperception, we already have the intellectual form that is not sensible, that goes beyond what is sensed. And, reaching beyond
 simple apperception and the simple act of rose givenness is the intellectual form, the specifically logical form in which the state of affairs
 25 is first constituted: the objective of the expression “this rose is red”.

- The basic error of sensualism, in which all of modern theory of knowledge and psychology is stuck, is that in certain ways it
 30 is mentally blind to the intentional, that it would like to dissolve all consciousness into sensory complexes, that it does not see the authentically intellectual in which all objectification is situated. The categorial form of the consciousness in which objectivity alone is constituted is lost. However, the Kantians, who want to take that into account and recognize its significance, do not know how to do

¹⁹ What does presented in the imagination mean? This! Positing reality and there are no questions.

anything right with it. They do not go back to phenomenological analysis in which the categorial alone becomes intelligible as a mode of objectification that, like sense objectification, can be intuitive and unintuitive, specially perception-like and not perception-like.

- 5 When the rose-judgment is carried out as a perceptual judgment, the forms belonging to logical synthesis, to the predicatively identifying synthesis, are conscious in such a way that the synthetic whole is not merely a presenting of this identity, but a consciousness in which, in its form, this identity is givenness, or is characterized as
 10 givenness. And so, we can speak of perception. If I say, this rose is red and I see it at the same time, then I do not simply realize the symbolic thought as such a thought is, nevertheless, often given and can be given as an empty thought, but I have a perception and, in a way, even fulfilling-consciousness. Step by step, the symbolic intentions
 15 coincide with the perception corresponding to them. In this, the “is” does not merely mean predicative identity, does not merely indicate it referentially, but this identity is self-given. I see, as it were, that the rose concerned is really red. A consciousness of identity grounded in
 20 this way, realized in this way is precisely a consciousness of identity that not merely refers to the identity, but gives it, and that constitutes the universal characteristic that we attribute to perceiving and qualifies it for the function of fulfilling. 320

- Yet, we do not here have the consciousness of fulfilment that we need for the authentic constitution of the “it is actual”. Rather, we have
 25 a *coinciding in fusing*, not a consciousness of transition, an explicit consciousness of identity, a logical one. A *static coinciding-oneness*, a *fusion-oneness in general*, as, for example, also in the continuous flow of perception, is *consciousness of continuous oneness*, but not *consciousness of identity*. For this reason, we also only then have a
 30 consciousness of the “so it is” in the relationship between the symbolic and the intuitive when an empty symbolic thought flows over synthetically into a corresponding perception, or when a symbolic expression of a state of affairs imaginatively borne in mind flows over into a corresponding perception so that the statement is trans-
 35 formed into a perceptual statement.

Let us take another well-founded object, for example, a species. The number 2. We perceive the number 2 (*nehmen die Zahl 2 wahr*) in the transferred sense of talk of perception when in actual collecting

and in actual ideating abstraction based on it, we acquire universality-consciousness of one and one. The symbolic intention is fulfilled when it flows over into this universality-consciousness, which does not simply present the universal and consider it existing, but itself gives it. The “actuality” of the species is naturally not real actuality, actuality of the thing, but for no other reason, because a species is just not a thing. *Every objectivity has its actuality, the actuality prescribed it by its meaning*, accordingly its presentation, also its manner of fulfilment as prescribed by the meaning. And, consequently, every non-actual object has its non-actuality and accompanying mode of disappointment.

There is no even number <2 . It does not exist. One is not talking about a thing in nature, but about a number in the number series. And, the members of the number series are specific units. They exist if they can be given in ideating abstraction. The ideating abstraction is of the nature of a “perception”. If, though, we go from the symbolic presentation “even number <2 ” to the intuition, meaning if we try to realize the thought in actual abstraction by following the directive, then we see the general conflict. That even number <2 can be produced means that the categorial act corresponding to this symbolic sign as an authentically performable, categorial objectivity giving act is actually founded and, consequently, this objectivity is there. It fulfills the presenting intention. So, something “actually” exists. In the other case, though, conflict ensues. The object is intended, but the object referred to is in conflict with the one to be had at any given time. It figures as non-actual.

That carries over to general and universal states of affairs. We say often enough that $2 \times 2 \Leftrightarrow 4$. But, we “see” it only if we actually carry out all the categorial syntheses that the expression, as it were, requires. The actual carrying out is not a precondition of the seeing, but is the seeing itself. I make clear to myself what 2 signifies, one and one, say, when looking at these benches I pick out one and one, perform the apprehending of indeterminacy and the conjunction one and one, and then generally lay hold of the “one and one” in categorial abstraction. And then, I must further make $2 \times 2 \Leftrightarrow 4$ clear to myself, and then in actually identifying transition perform “ 2×2 is the same as 4”. If I do that, then I have *Evidenz, insight*. Now, those are just other words for the *perception of the universal state of*

affairs as opposed to merely symbolic presenting or symbolic judging without insight. If we go from the latter to the former, then the verification takes place: “it is really so”, or the state of affairs, this state bound by essential laws is a reality. In comparison, $2 \times 2 = 5$ is not so. It is not a reality. It is not a truth, but a falsehood, namely the presentation does not agree with a corresponding perception. What is presented does not come to perception (*Wahrnehmung*), but comes to be taken as something evidently false (*Falschnehmung*). It cancels itself out in the intuitive conflict.

10 <(c) The Phenomenological Concept of Truth>

Evidenz is, therefore, an expression for perception of the state of affairs, namely as fulfilling with respect to a corresponding simple presentation of the state of affairs. That $2 \times 2 \Leftrightarrow 4$ is, is evident. In the strictest sense, Evidenz is the consciousness of a fulfilling, adequate perception, as in the example just given. *We only speak of Evidenz for judgments*, or presentations of states of affairs. We shall not say of a simple perception that it is evident, however, but rather that it is evident to us that an object actually corresponds to it, namely when it is fulfilled. And, likewise, with respect to the fulfilling of a simple presentation in a corresponding perception, we shall speak of the Evidenz of the fact that the object presented actually exists. The fulfilment synthesis is truly itself a judgment synthesis. It is a synthesis of identification and, as in every synthetic identification, a state of affairs is constituted in it. If the fulfilment is adequate, we then have Evidenz of the object’s actuality,²⁰ irrespective of the kind of object involved, whether a state of affairs or a non-state of affairs, an object in the narrow sense (a thing, a species, an aggregate, and so on).

For objects in the narrow sense, we speak of existence on the basis of the circumstances of fulfilling, for states of affairs, of obtaining, but also of truth. We call the presentation of the object a correct presentation. In fulfilment, it turns out to be correct, tenable, even valid.

²⁰ One can, however, also say: All fulfilling by perception yields Evidenz. But, the Evidenz varies in completeness.

The believing-intention referring to that object is “verified” in the fulfilling, “is confirmed”. “Unbelief” is refuted, doubt resolved. For states of affairs, we have the judgment, or a modification of judgment as constituting act, therefore, an identification, or differentiation, in any of its forms and conveyed by the quality of believing, or another quality related to the belief, like denial of belief, unbelief, doubt, and so on. The belief is a “correct belief” if it is verified, confirmed with Evidenz. It is not correct to associate talk of truth with believing, with judgment in the present sense.

10 An essential point needs to be discussed in addition here. *Truth*, people say, *is agreement between the presentation and its object*, 323 *adaequatio rei ad intellectum*. Our analyses have taught us to understand what must correspond to this old scholastic maxim: Fully adequate fulfilling-synthesis supplies us with the phenomenological correlate of the “correspondence” under consideration here, only that presentation does not accord with object, but presentation with the “perception” giving the object. This is relevant to all cases, including “agreement” pertaining to judgments.²¹

To be noted everywhere is, then, *that the fulfilling-synthesis is not a contingent event belonging just to this momentary presentation and this momentary perceiving*, as if at the next moment, instead of agreeing, a presentation with the same content could disagree with a perception with the same content. Rather, we see it as a general essence-truth that this relationship, like all the relationships in general considered here, is grounded in the general essence of the phenomena concerned,

²¹That only suits essence-judgments (and meaning-judgments). Absolutely not, though, empirical judgments and empirical truths as a whole. Compare, however, also what the end of these lectures brings, which is truly in contradiction with what is explained here. An *adaequatio rei ad intellectum* of this kind is not possible for empirical objects.

1. The statement fitting the empirical perception, the perceptual judgment’s correctness of expression. During the duration of the appearing perceptual object, better of its appearing-duration, *S is P* really figures appearance-like!

2. That it is objective-actual is not said. *Dasein*-correctness, objective. Empirical perceptual judgment, empirical judgment! Now-judgments of perception and memory (fresh memory) cannot possibly be objectively verified, just objective temporal judgments: At one objective point in time or another, one thing or another took place. Likewise, only objective spatial judgments, not the here-judgments.

in their meaning, especially. Therefore, we are actually dealing with the presentation in specie and the corresponding perception in specie. The object presented in such and such a way is actual, shows itself to be actual in the specific perception with the same meaning.

- 5 Actuality belongs to the object, and the object is identically the same, no matter what presentation presents it. The object is not something belonging to the fleeting presentation, but to its essence, which can be given as specifically the same in countless presentations.

- Objectivity lies exclusively in ideality. Without identity of essence*
 10 *there is no identity of object.* So, “actuality” is not a fleeting phenomenological event like the actual fulfilling. It is grasped in the latter. 324
 It reaches beyond the fulfilling-phenomenon, because belonging to the essence of this presentation is the possibility of fulfilment, or because, when fulfilling takes place, the same fulfilling-possibility
 15 occurs for every presentation with the same meaning. *Accordingly, when a judgment is verified in Evidenz, what is specific in the judgment agrees with what is specific in the Evidenz.* Now, it is further evident that when a presentation is fulfilled, every presentation identifiable with it is fulfilled, *that, accordingly, what is specific in the*
 20 *meaning is alone decisive for the specific possibility of fulfilment.* Accordingly, for judgments, the *proposition*²² is alone decisive for the ideal possibility of fulfilment. Proposition is, namely, nothing other than the specific meaning of the judgment, disregarding the moment of the position-taking.²³
 25 If I judge that $2 \times 2 = 4$, then I may have in mind four balls or four houses, etc. If I do not have any full intuitive presentation, then I may have in mind the 4, say, as 4 balls, but the “ $\times$ ” is meant merely symbolically. In short, there are countless possibilities there. Yet, I am still referring to $2 \times 2 = 4$, and the identical meaning of this refer-
 30 ring is the proposition that, therefore, is a universal object, something specific. Only the proposition, the meaning of the reference count for

²² Indeed, there we have the fundamental difference between essence-propositions and being-propositions.

²³ Is the position-taking not then taken over into the essence? Can it in general be left out?

possible fulfilling. If in the fulfilling, I one day grasp “it is really so”, then in so doing $2 \times 2 = 4$ is really so, and the objectivity expressed in so doing obtains, because each of the infinitely many possible presentations having the same meaning shares in the same possibility of fulfilment. It is generally evident that when two judgments contain the same proposition as meaning, and that when one of the judgments is fulfilled, that the other might be substituted for it without canceling out the fulfilment.

So, here we have the agreement essentially grounded, on the one side, in the proposition and, on the other, in the specific essence of the fulfilling “perception”, i.e., the “Evidenz”, “insight”. So far as the proposition coincides with the specific content of the insight, the proposition naturally is in it too. But, it contains more. *The proposition’s specificity is already in the empty, purely symbolic judgment, but only the excess present on the side of the insight gives the possibility of verification.*

Now, we have different possible ways of giving a meaning to the truth concept. We call a judgment as act, as phenomenological or even psychological act *hic et nunc*, a correct judgment, but not a truth. Judgments pass away; truth lasts. Objective truth, truth not containing any incidental relationship to any individual *Dasein* or the fleeting phenomenon, is eternal truth. That holds of every essence-truth.²⁴ $2 \times 2 = 4$ is something supra-temporal, or better atemporal, an “eternal value”, as people say.

We then call the proposition, which is itself an ideal truth, true. We call it a truth. We call it this, though, because it “accords”, because it is to be made perspicuous. In the actual insight, we grasp its truth, not as something belonging to it in its own right, but something accruing on the strength of its verification (only that the fulfilling is exclusively grounded in its immanent essence). Therefore, we see: The proposition is true because truth “corresponds” to it. The proposition is therefore called truth in the unauthentic sense on the strength of this corresponding, namely, because truth in the authentic sense generally corresponds to it. What is, then, the truth

²⁴Therefore, it is stated here.

corresponding to it, truth in the second, more authentic sense? Well, obviously the specific essence of the insight, what is fulfilling the proposition on the side of the experience of Evidenz, not understood singly, but specifically.

- 5 Finally, by truth one can also understand the agreement of the proposition with what is specific in the insight, this agreement naturally also understood specifically. Truth, therefore, the general property of the proposition of according, of being seeable. Finally, the concept of truth also transfers to states of affairs. Instead of the obtaining of a
- 10 state of affairs, we also speak of its truth, i.e., of its trueness.

<§50. *The Phenomenological Theory of Mind*>

326

<(a) On the Methodology of the Phenomenological Method.
The Tasks of a Phenomenological Theory of the Mind>²⁵

- With that, the analysis of the most fundamental logical concept,
- 15 that of truth, is acquired and, at the same time, a good bit of clarification of the methodology of the phenomenological method itself acquired. For, what does the phenomenological method consist in? Well, in continual analysis of the mental events to be found in pure immanent reflection in which the various categories of objectivities
- 20 are constituted, in continual ideation of them, in the adequate making of judgments and statements that set forth the states of affairs grounding in the universal essence of these events, in authentic identification and differentiation, in authentic determination and substantiation. These general states of affairs progressively come to adequate
- 25 expression through word meanings and propositional meanings orienting themselves precisely in accordance with what is given.

- Through *phenomenological* analyses of the kind we have performed, we thoroughly understand *how phenomenological determination is in general possible* and how its ultimate meaning and
- 30 its claim to validity are to be determined. It aspires to be analysis of essences and to set forth the general connections evidently and

²⁵ Compare Appendix A XVI.

directly grounding in the general essence. We understand, though, how general givenness is possible and how general judgments acquire their correctness, their unconditional justification in relationship to it. We understand that for the inquiry into justification and lack of justification, it is everywhere a question here of whether judgments that we make, statements that we make, are simple promissory notes that we make out on “intuition”, on the fulfilling perception or, as we also say “experience”, simple promissory notes that perhaps cannot be redeemed at all, or whether they are, on the contrary, promissory notes for which we have the cash of intuition directly on hand. We understand that the relationship to a possible experience, to a possible perception, belongs to the essence of every mental act that is not itself already a perception, and belongs to it because it itself is a generally seeable essence-law that every mental act, whatever structure it may have and whatever meaning it may possess, must necessarily admit of either fulfilment or disappointment and that these relationships of fulfilment and disappointment are thereby exclusively grounded in the specific essence of the acts coming to coincide. 327

Every judgment is either true or false. Every presentation either accords with a possible experience adequately redeeming it or is in conflict with the experience. And, grounded in the essence of agreement is the fact that it is incompatible with the conflict, grounded in the essence of conflict, that it is incompatible with agreement. That means that truth rules out falsehood, falsehood rules out truth. And, likewise, existence and non-existence, correctness and incorrectness cancel one another out in every sense. We see all that here immediately as soon as we have clarified the essence of existence and truth, of correctness and incorrectness, of Evidenz as consciousness of givenness, of being and not-being in fully redeeming intuition. (Reflexively: We go from the material relationships to the phenomenological relationships constituting them.) With this, at the same time, we grasp the “ultimate meaning”²⁶ of the basic logical law of contradiction and of the excluded middle, at least in their most universal formulations applicable to any presentations and judgments irrespective of any special form.

²⁶What does ultimate meaning mean? The ultimate source, the phenomenological essence of the structuring relationships.

Naturally, such fragmentary analyses do not suffice to clear up everything that is to be cleared up here in the apophantic sphere. Phenomenological theory of the mind in general has to investigate all the categories belonging in the sphere of the mind one after the other, consequently, all presentation forms and all position-taking modes, especially all judgment forms, all fundamental forms of identification and differentiation for states of affairs in general in their ever new variations, ever new combinations with the functions determining the form of the propositions in different ways. Every new primitive form produces new categories. A whole series of fundamental categories, namely apophantic categories, has already come our way and met with phenomenological elucidation. Tracking the primitive forms in which the function of the identification and differentiation develop, the form of the categorical, existential state of affairs, one meets with identity and non-identity, with equality and inequality, with relation in general, with subject and property or qualification, with the categories of indeterminacy like unit, multiplicity, universality, with the category of specific universality, with the form of conjunctive and disjunctive connectives, additionally, unity as compatibility, disunity as incompatibility. Closely connected to this are possibility and impossibility. 328

The existential judgment and the judgment that assigns the predicates true and false to propositions produced the categories of existence, non-existence, truth and falsehood. To be added would be still other forms and new categories connected with this, thus, above all, the form of hypothetical and causal propositions that lead to the relations of subordination of particular states of affairs under universal states of affairs, isolated case and universal rule, with special mention of the difference between fact and law. In addition, to the difference between presupposition and consequence, or argument and consequence, thereby, to the idea of the inference, and of inferential necessity, to the relationship between necessity and law, etc.

The investigation is guided by grammatical forms throughout. However, its goal is not to make empirical and purely grammatical findings, but to subject the judgment functions, and to begin with authentic judgment functions, the forms of the identifying and differentiating syntheses, to an essence-analysis and in purely seeing procedure in the actual "realization" of the objective forms concerned,

to extricate the structure belonging to their essence and the general relationship grounding in it, independently of whether the empirical language has given the unambiguous expression all the categorial distinctions or not.

- 5 Proceeding systematically, one must step by step track down the essentially new, primitive, logical (here always related to the essence of the judgment)²⁷ forms and primitive categories and then trace the possibilities of systematic involvement as well. For, in that it is objectification, therefore constitutes objectivities, the mental form 329
- 10 can be applied over and over to objectivities once given, and the ideal possibility of collection *in infinitum* arises there. The forms can be applied over and over in the given case. Therefore, the forms themselves can combine with one another over and over in general reflection and build upon one another in infinitely diverse, and yet
- 15 systematically surveyable, entwining. We see this for algebra, which as pure theory of the forms and laws of what is number-like truly belongs in the purely logical sphere. The form $a + b$ begets infinitely many forms. I can just apprehend a as a sum, therefore $(a + b) + c$. That is a new form. Likewise $((a + b) + c) + d$, etc. If by the letters
- 20 we understand, not numbers, but any objects whatever, and by the $+$ collective combination, then at the same time we have a system of collective forms there.

- Or, if we take the form A is α , then we can lay down that $A\alpha$ is β , $(A\alpha)\beta$ is γ , <etc.>; A is a β , A is a β , which is γ , etc. And so, the task
- 25 also consists, not just in putting forward the primitive forms, but in systematically tracing their combination, their iteration, and all possibilities of their modification into ever new forms. And, all that may at first be considered as a systematization of the forms of categorial intuitions possible in general and *a priori*.

- 30 Obviously, this theory of forms is already in itself an *a priori* theory of laws. When, if the occasion arises, we realize a specific

²⁷To begin with, in objective posture, we have forms of states of affairs, meaning-forms in the objective sense. For the reflection, we have judgment-forms, or forms of judgment-essences. Therefore, we go from the ontological to the phenomenological.

collection, then that is a phenomenological fact. That, however, the form concerned is a valid form independently of the particularity of the case in specie, has its ideal existence, and that we can universally say that categorial intuitions in general of this form are possible is already a legitimate generality that we grasp with general Evidenz on the basis of the single case. Therefore, the quest for elementary types of categorial forms and types of progressive complexity already signifies setting forth an *a priori* system of laws holding sway throughout the essence of the mind. Of course, it is not the one we have in view when we speak of logical laws in the concise sense, and especially of formal logical, of apophantic laws. We shall still have to deal with that more closely. However, before we move on to that, let us take another look at symbolic presentations. 330

Corresponding to every categorial intuition as regards ideal possibility is a symbolic presentation, say <a> linguistic expression, exactly adapted to it, exactly expressing it as regards matter and form. Hence, corresponding to a theory of forms of categorial intuitions is also a theory of forms of symbolic acts. We need not, moreover, simply think of empty intentions here. It is enough if we take imperfect, confused presentations of any level whatever, but in any case presentations that can be brought to coincide in total identification with corresponding, fully intuitive categorial objectifications. Then, for categorial, inadequate objectifications, we obtain the same forms as for categorial intuitions.

Let us now drop the restriction, the restriction to intuitively, actually realizable forms and non-intuitive objectifications running exactly parallel to them, coinciding with them. Let us take categorial objectifications in general, whatever their nature, and let us investigate their forms and entwining, ascertaining them in general abstraction. Then, we obtain a universal form-theory of categorial objectifications and a universal theory of their possible entanglements and modifications. In fact, this is a theory of forms purely determined by the meaning of these objectifications. The form is quite unaffected by the difference between perfect and imperfect intuition and between intuition and empty presentation. Therefore, form-theory of "meanings". That the systems of laws arising here are not those that we ordinarily understand by logical laws is at once seen in the examples.

<(b) Epistemological Grounding by Phenomenological Clarification
of the Analytic and Synthetic Essence-laws>

But, where do things stand with our categorical knowledge of existents? If need be, logical form presupposes a content and is based on underlying perceptibility. If we judge purely analytically, then our judgment is a special case of a general logical relationship. The content varies freely then, as when make an inference, for example, apply a universal proposition to a subordinate particular case. We also judge “synthetically”, however. Every judgment has its logical form, but not every one owes its truth or falsehood simply to this form. If it is supposed to be able to be true, then it may not violate the logical laws of form, but not doing so, for example, by not containing any logical contradiction, does not yet make it true, but only logically possible, logically unobjectionable. Only for analytical judgments do logical possibility and truth coincide. But, analytic judgments are simply hypothetical judgments. The existence posited in the content of a judgment is not verifiable purely logically. The logical form of the judgment “the moon lacks an atmosphere like the earth’s” does not violate any law, but the underlying objectification, the positing of the moon as a real object that exists and the real qualities ascribed to it, does not draw truth and falsehood from the essence of logical form. So, this is the way things are for purely logical laws, despite their most fundamental meaning grounded in the fact that all knowing is realized in judging, in predicating, and that the forms of the predications carry with them the stipulation of the possibility of judgment fulfilment. 331

What further knowledge do we possess for which phenomenological elucidation can come into play? The analytical thought-laws are essence-laws that belong to the predicative form. Belonging to them are the systems of laws of the entire *mathesis universalis*. There are still various other essence-laws. *All phenomenological insights* are truly of the kind involving essence-laws. Belonging to the various sorts of phenomenologically reduced experiences are relationships involving essence-laws. *Moreover, belonging to the various levels of reifying objectification and to its different sides are essence-laws, laws that belong to the categories of thing objectification*, the full elucidation of which has, however, thus far not yet been accomplished.

In just a few steps, by analyzing simple objectifications, we were able to establish the possibility and meaning of such investigations and show how the object of empirical intuition is not a simple content that we have but to gaze upon and that, as it were, automatically and simply exists, and nothing else. Rather, we see that the object of empirical intuition, and especially of thing perception, is first constituted in a complex apperceptive act and how it draws its forms from the essence of these apperceptions, owing to which it first is what it is. Vis-à-vis the phenomenological stream of the consciousness, the thing constitutes itself as objectively temporally existing, lasting in objective time, at times maintaining itself unchanged in it, or changing, and yet the same amid the change. And, the physical thing has its spatial form, which is covered over with qualities. The thing's time fits into the one time, its space, into the one space. And, belonging to the essence of the thing is that it is an identical substance, <on the one hand> vis-à-vis the changing intrinsic properties and, on the other hand, vis-à-vis the changing relative properties accruing to it in relationship to other things. Belonging to the essence of time are essence-laws, the time-laws, to the essence of space, the space-laws, to the essence of properties, the fact that they pertain to the substantially existing thing at a certain time, and pertaining at a time rules out not-pertaining at the same time, while the pertaining at one time can be compatible with the not-pertaining at another time. Likewise, the fact that, by its very essence, change concerns the substance in terms of its properties and that by this is linked to the generic essence of the property: Color can change into another color, determination of sound into another determination of sound, but changing color into sound, or sound into roughness, etc. produces absurdity.

There is there, therefore, a wealth of essence-laws. Naturally, they first emerge when the objectivity of the simple intuition is subjected to a sense analysis and the reifying forming seen in adequate intuition actually realized. And not only that. They first emerge with predication in view of that, therefore, when predicativo-categorical formulation is brought in. But, the resulting essence-laws that are given in pure insight are not laws of analytical thinking. They are not analytical laws *a priori*, not formal-logical, formal-mathematical laws. The apophantic form is naturally there, as in every statement, in every formulation of a law, but these laws are not grounded in apophan-

tic forms, but in the essence of the thing, of property, of change, 333
of time, of space, and so on. *They are not analytic, but “synthetic
a priori laws”*, to use the Kantian term. Yet, we see that while all
non-analytic laws are called “synthetic”, under the second heading
5 we find different kinds of laws of essence that can scarcely ever be
put on the same plane. Some concern the essence of “consciousness”
and the essence of experiences in general as regards their different
genera, irregardless of any reification. The others concern the formal
essence of thingness as such and, moreover, the essence of qualities
10 of things that are to be given adequately. In things, we have form and
matter: substance, accident, absence of change and change, spatiality
and temporality. In short, everything that is intrinsically *a priori* in
the universality of the being of things as such can be designated as
form, and as matter, the particular genera and species of what is real,
15 or of its qualities. And with that, matter is automatically limited to
the qualitative essence of the thing, to its perceptible ὄλη. Namely,
the differentiation of all possible spatial and temporal formations is
grounded in the *a priori* essence of space and time. However, the
definite possibility of all qualities is not grounded in the *a priori*
20 essence of quality, of the objectified quale of the perceptible sensation.
That does not, though, rule out that grounded in the generic
essence of color, sound, and pregiven perceptible genera of the kind
are essence-laws that in the categorial understanding of the sensation
turn into the quality of the object, into its qualitative nature, into
25 essence-laws of the qualities of things. These laws are manifestly of
an entirely different nature than the temporal, kinematic, geometric
laws, as well those laws belonging to thing, property, change in general.
They are all *a priori*, but some are grounded in what is generic
in perceptible matter, others in real categories, in the forms, without
30 which thingness is nothing and cannot be anything.

Assume that we had not merely roughly indicated all the investigations
pertinent here, but had thoroughly carried them out. We
would then have at our disposal a store of essence laws, not merely
for analytical thought contexts, but also for reality appearing to us in
35 perception and experience. We would have them at our disposal signifies
that they would be clarified as regards their phenomenological origin.
The correlation between ideality and objectivity would be 334
carried out throughout this sphere and be perfectly clear.

Which sciences would be epistemologically well-founded by this and pulled out of their problematic position?

First, *purely formal logic* and the entire formal mathesis. And, similarly, the associated normative logic, so far as the norm is purely related to the analytic form of thinking.

Second, *phenomenology* itself, the immanent essence-analysis of reduced phenomenal events. The necessary auto-clarification of phenomenology by itself would be realized.

Third, *real ontology*, the science of the essence of real being, i.e., of the *a priori* that belongs to the essence of thing, space, time. The *a priori* of geometry, of kinematics, of the pure theory of time, therefore, finds its place here and, besides, the *a priori* of thing, property, change inherently connected with it.

<§51. *The Phenomenological Elucidation of Natural Scientific Knowledge*>

<(a) The Problem of the Justification of Empirical Assertions of Universality>

Where do matters stand, though, with natural science, the science of matters of fact,²⁸ the science of physical and mental nature? Have they already been cleared up in the foregoing? We have to admit that they have not.²⁹ We have acquired various groups of essence-laws, made them intelligible as concerns their phenomenological origin, therefore, as concerns their absolute content. *Natural laws are not, though, essence-laws*. That phenomenological insights and that purely logical insights, of however little relevance they may be for psychology, are not however knowledge of the nature of the mind, of

²⁸ "Matters of fact" is in English in the original (Translator's note).

²⁹ Does the phenomenological elucidation of the essence of thing, property, causality, space, time, etc., in short, of ontological concepts and ontological laws not lead *eo ipso* to the problems of the how of the givenness of all thingness and, thereby, to problems of empirical substantiation, therefore, of substantiating specific truths about things, specific facts about nature and natural laws. Yes, obviously. Therefore, the entire reflection, however much it may contain that is good in the details, is wrong.

- the nature of human, animal, and other real inner life, we have discussed sufficiently. And, no less are laws of that kind, even including ontological laws as essence-laws of reality in general, natural laws, though they speak of nature. *What belongs categorially to thingness in general, and to nature in general, without which nature is inconceivable, does not yet give natural science in the customary sense of interest to us now.* The laws of mechanics, of acoustics, optics, electrical theory, etc. are not essence-laws of nature, not *a priori*, but *a posteriori* laws. They claim to hold universally precisely as laws.
- 10 And a yet, it is not implied in their meaning that a reality in general and as such in conflict with them would be inconceivable. And, what holds of natural laws holds for all individual assertions about nature. Every proposition by which we state something about given nature, which expresses a specific fact about physical or mental experience, oversteps the sphere of the clarifications realized by us. We
- 15 can indeed ontologically carry geometrical, kinematic insights over to given individual cases of experience, *but the givenness itself eludes geometrical and other essence laws.* The givenness of natural objects is presupposed there. What, though, is givenness?
- 20 Simple perception claims to give the object. But, thing perception is not adequate perception. The individual thing already creates a problem for us. In the perceptual context, it keeps on unfolding. Perhaps, it confirms our perceptual intentions. But, just when that is the case, the circle never closes, so that the natural thing might then
- 25 be an absolute givenness. Advancing in experience not only confirms, but also expands our knowledge of the thing. The thing is ever determined anew. It displays properties that were not known up until then, therefore, not co-intended in perceiving. The thing comes into relationship with other appearing things, is affected by them, just
- 30 as it has effects on them, effects that were perhaps not anticipated. It belongs, we then say, to the nature of the things to affect and be 336 affected in this way. Experience does not, therefore, simply confirm, does not, therefore, simply unfold what was already definitely indicated in the intention. But, experience rectifies too, and when the
- 35 perceptual intention entwined with it counters instead of confirms, the existence of the thing is not handed over without further ado, and at least not necessarily so. The thing is, but is differently than presupposed and experience determines it, the same thing, in a new way.

The perceptual intention hands over partial intentions and picks up new ones in retaining the identity of the thing referred to.

The thing is. What it is and how it is determined in proceeding with the perceptions and experiences is ever determined anew and leaves open ever new determinations. Therefore, the positing of the thing as being determined in one way or another is not to be substantiated by mere adequacy as in the phenomenological and essence-sphere. And, on top of that, then, is empirical generalization, empirical formation of classes, and the constitution of empirically universal judgments, at the very top, of natural laws. General seeing is out of the question there. An essence-law is something adequately given. Any denial is absurd here. But, denying an empirically universal fact is not absurd at all. We can conceive of the opposite precisely because no essential law is violated.

How, then, is an empirically universal assertion, especially one involving natural law that nevertheless claims to prescribe a rule for all future experience and is not, say, restricted to a denumerable empirical extension, supposed to find justification? Assume that an isolated empirical judgment like "This flower is a rose" is not a problem. Then, judgments restricted to a denumerable extension like, "The flowers of this garden are roses", would not be either. I really only need to look them over and eye them one by one. But, what about judgments referring to all gravitating masses, to temperature in general, to light in general, and so on? Those are judgments that make reference to all of nature stretching out into infinity, not simply from the angle of the past, but also from the angle of the future, and make reference to all actual and possible bodies in infinite space and infinite time.

Well, there certainly are statements that concern every possibility, statements involving essence-laws about, for example, spatiality and temporality in the form of geometry <and> kinematics.³⁰ But, assertions involving natural laws do not involve essence-laws. *Despite their formal unconditional universality, in a certain way, they are nevertheless only factual assertions.* Nature as such is not unconceivable

³⁰Yes, if it is empirically established that things are. Is not a coat of empiricism already involved in the fact that existence is asserted of things in space, time and causality?

- without physics being valid. Ontology, not physics, speaks of nature as such. But, experience teaches that nature is *de facto* such that the laws of nature govern it. But, how can experience, which only gives particulars, teach something like that? How can it prophesize? How can universal
- 5 statements of a factual nature be fulfilled? If they are supposed to be unconditionally valid, then they must, this seems to belong essentially to the idea of validity, be able to prove their validity by adequacy. But, adequacy is impossible for them. We supposedly assert these laws on rational grounds and yet do not assert them on grounds of adequacy.
- 10 Were we to do that, then they would be essence-laws. Beholding the universal is beholding the general essence and essence-relationships. And, nothing of the kind is at all present there. So, the *big problem of experience* opens up here, the problem of *synthetic a posteriori judgments*, of singular and general, legitimate ones.

15 <(b) Critique of Kant's Formulation of the Basic Problem
 of Theory of Knowledge>

- Kant contrasted analytic with synthetic judgments, taught that analytic *a priori* judgments and synthetic empirical judgments do not contain any problems. On the contrary, only synthetic *a priori*
- 20 judgments would be problematical. Our reflections show that these formulations cannot be correct, certainly not for synthetic empirical judgments, which on the contrary pose a quite nasty problem if ever one penetrates the depths of phenomenological theory of knowledge. In general, the Kantian formulations of the basic problem of
- 25 theory of knowledge seem incorrect to me. It was very detrimental to the development of a radical, and the only scientifically adequate, critique of knowledge that Kant allowed Hume to be entirely too determinant for him while he was out "to save" the possibility of 338 knowledge from Humean skepticism.
- 30 In the *Essay*, Hume had contrasted knowledge of matters of fact with *a priori* knowledge, knowledge of *relations of ideas*.³¹ *Au fond*, the latter corresponded to what we are calling essence-knowledge.

³¹ "Relations of ideas" is in English in the original (Translator's note).

It is, therefore, *a priori* in the only genuine sense. Hume let this latter kind of knowledge go unchallenged. That certain relations are immanently grounded in the essence of given ideas and the corresponding relation judgments can generally be stated and hold unconditionally is obvious. Any denial would be absurd (a contradiction). Belonging to the essence of isosceles triangles is being equiangular. One idea is given with the other. Belonging to the essence of triangles in general is that the sum of the angles = 2 right angles. It would be absurd to judge otherwise. With propositions of this kind, we do not go beyond the realm of ideas. We state what lies in the meaning of concepts that we have only to call to mind, only to analyze in order to see what lies ineradicably in them and is *eo ipso* given with them. Anyone denying propositions of this kind is in contradiction, is talking about triangles and not adhering to what the meaning of the word triangle, what the idea of triangle as such necessarily carries with it. With all knowledge of this kind, we remain in the realm of immanence, of simple ideas.

However, statements of *matters of fact*,³² especially the universal laws of nature and all judgments in which, from matters of fact, we conclude new matters of fact not included in the original essence-laws are puzzling. They lack rationality. How am I supposed to see that something follows from something else and yet is not contained in it logically or in virtue of a law of essence? How am I supposed to see that a law holds while it is not grounded in the essence of the concepts occurring in the law? Yet, Hume concentrated entirely on this problem. It was so very paramount for him that he did not verbalize any problems for empirical particular judgments that state a simple fact, indeed set forth the facts as if they were ensured by perception and memory. And, Kant was quite sure of this at the outset and accordingly in the problems he dealt with. He understood Humean relations of ideas to be analytic propositions, and that is, therefore, tantamount to saying that analytic propositions do not present any problems, for they have their obvious principle by which their objective validity can be seen, the law of contradiction. Synthetic *a posteriori* judgments do not present any problems, for they are based

³² "Matters of fact" is in English in the original (Translator's note).

- on experience. Experience is what guides us in realizing the empirical synthesis, that means in attaching precisely this predicate to this subject. Synthetic *a priori* judgments do, though, present a problem, especially the principle of causality, the principle that induces natural scientists
- 5 to search for causes everywhere in nature, wherever changes occur, therefore, to assume causes from which these changes are supposed to proceed by necessity, necessity which, however, is not analytic. Kant, of course, did not notice how much of Humean thought was lost on him, how a major part of the relations of ideas was already
- 10 lost on him. Kant's analytic propositions are truly propositions that are valid purely logically on the basis of their apophantic form, that are grounded in the essence of the formal logical categories. Hume did not, though, have the latter exclusively in view, even considered them wholly irrelevant, but rather the non-analytical propositions
- 15 nevertheless immanently grounded in the essence of the concepts.

- Nevertheless, I must not dwell on this long. However, it has to be said as against Kant, but also as against Hume, that no scientific theory of knowledge may shove aside any body of knowledge whatsoever from the start declaring that it is not in need of justification.
- 20 Even the most trivial analytical knowledge presents big problems and hard problems for critique of knowledge. A puzzle is already present in them: How objectively valid knowledge, knowledge of things existing on their own, is possible vis-à-vis the subjectivity of knowing as a subjective activity. Of course, in Kant's time, extreme
- 25 empiricism had not yet made its appearance. Only the 19th century brought theories, and allowed them to become popular, in which people ventured to attribute even the law of contradiction, and thus all of formal logic, to the chance organization of the human mind and to put them on the same level as the empirical laws of the life of the
- 30 mind, like the laws of association.

- Systematic critique of knowledge must shed light on all kinds and forms of knowledge from the bottom up, and if it succeeds in formulating and solving the problems with absolute trenchancy for any field of knowledge, even if we declare it obvious, then infinitely
- 35 much is gained in doing so. In doing so even the key to the solving, 340 and already to begin with the formulation, of the problems in all fields of knowledge is obtained. However great its merits are, however rich in profound thoughts and as thought provoking as it is as

well, Kant's critique of knowledge does not fight its way through to clarity and liberation from all metaphysics. In no area, does it lead to a radical, completely clear formulation of the problems. Thousands of years of effort in theory of knowledge and yet not even a clear and distinct posing of the problems. But here, above all, setting the problems counts as the greatest scientific feat. The path from dark intellectual queasiness, from the sense of unclarity about the facts of knowledge, to the clear exposition of what is rationally to be asked and not to be asked here is incomparably longer than the path from there to the solution.

Needed to begin with, therefore, were primitive analyses, both in the realm of sensory, plain intuiting and symbolic presenting and in the realm of logical thinking, especially of analytical thinking. There, one quickly reaches the insight that provides the springboard for all further setting of one's sights in the critique of knowledge, the fact that *all objectivity has its source in phenomenological ideality*, that, therefore, underlying any talk of correct and incorrect, rational and irrational are certain ideal relations and laws relating to the contrast between clear and confused, intuitive and symbolic, adequate and inadequate, laws that for their part can be seen in general intuition as essence-laws. That must, therefore, also remain the leading idea in every theorization of empirico-thing knowledge, therefore, for the elucidation of all knowledge of nature and of the principles upon which its meaning, its ideal possibility hinges.

25 <(c) The Radical Difference Between Assertion of Essence and Empirical Assertion>

There is a radical difference between a *phenomenological assertion*, which keeps purely to the idea, to the essence, and an *empirical assertion*, which relates to a thing unit and the natural context of things. The idea, the essence, is constituted in an entirely different objectification and with an entirely different meaning from thingness. The identity of the essence is such that it is what it is through itself, that it is given in intuition, or ideation as it is, and that through no other intuition, through no combinations of intuition can it ever be different. It occurs in every combination as it is. It is unchanging. Its

being is “immanent” being, only determinable immanently. A relation of ideas is grounded purely in ideas, immanently. That means that where the ideas are given, the relation is there too in an eternally unchanging way. That belongs to the meaning of “idea”, is prescribed
 5 by the meaning of the objectification constituting it.

Thing objectification is entirely different. Belonging to the essence of this transcendent objectification is the fact that it produces something identical that can be determined anew over and over and can be determined differently *in infinitum*. Though my perceiving opinion
 10 may be confirmed as perfectly as possible in the course of perceptions, as when we imagine a thing absolutely known, the possibility is yet open that, in proceeding on to ever new perceptual contexts, expanding experience will determine the thing in an entirely new way. A thing absolutely known as regards all possible experience in
 15 general is *nonsense*.³³ That contradicts the essence of thing objectification.

And, yet more. The thing is known. We know that seen from this side, it appears in this way, from that side, that way. But, what kind of knowledge is that? The thing really could have changed. Despite
 20 everything known, it could turn out that it is different now, therefore, different than we presupposed. Therefore, adequacy realizes something different here in accordance with the essence of thing objectification than in the case of essence adequacy. In the latter, the fulfilling intuition gives the object, as it is by itself, once and for all. This same
 25 object can never at any time under any circumstances be different. For a temporal thing, identical amid the endless, boundless possibilities of further determination, in the absence of change and in change, adequacy at the very most verifies the still-being-so and continuing being-so under the current perceptual circumstances as the anticipating belief posited it, but not the being-so over and over, the being-so
 30 under all circumstances of perception, the absolute being-so. And, that would even hold, if the thing were something unchanged for all eternity and showed itself to perceivers unchanged. For, that would
 342 just be “chance”, the opposite possibility always remaining open
 35 owing to the essence of thing objectification.

³³ “Nonsense” is in English in the original (Translator’s note).

Connected with that is the fact that just as beliefs and also judgments have different kinds of verification depending on whether we posit essences or things, the meaning and carrying out of verification are something essentially different in each case. Just think of how time plays its role everywhere in the sphere of reality and factual judgments and plays no role at all in essence and essence-judgments. For example, I see a thing from the front and posit it as determined in this or that way on all the sides co-apperceived. If I later see it from a different side, say the back, I do not thereby see how the thing was from the back before, but how it is from the back now. It could have changed in the meantime though. I must, therefore, have reasons for assuming that it has remained unchanged.

Although it is belief that what is real exists in this way and that, meaning is that way now, or was that way, or will be that way, as regards its meaning, empirical belief always leaves open belief possibilities (insofar as we make this meaning clear to ourselves solely on the basis of intuitive apperception), *and that gives it the quality of believing in the sense of considering-probable*, the word of course understood in a quite broad sense.

Here, I must, however, clearly emphasize that talk of considering-probable ordinarily has a narrower meaning. People contrast simple presuming (same as simply-considering-probable) with being certain, while both count for us here as modes of considering-probable in the broadest sense. *Certainty is present where the position adopted in the belief is uncontested*, where other believing possibilities conflicting with the ones given are not at all under "consideration", not competing. In contrast to that, it belongs to the essence of considering-probable in the narrow sense that a preference for one believing tendency as against other conscious believing tendencies occurs. *I can be certain, and yet the certainty has the quality of empirical certainty that leaves open other possibilities of believing, even if they are "empty possibilities"* and, consequently, do not fully rule out differentness. We also express this by saying: *Empirical judgments are only justifiable as probability judgments*. Clarifying for ourselves the meaning of empirical objectivities and states of affairs, we see that *differentness always remains a real possibility* and that the preference for one believing possibility as against another must have its empirical "grounds" that confer upon the believing its value, *the weight it*

5 *carries*. That is obvious for all singular empirical judgments and so all the more so for all general ones. Every natural scientist knows that even the most highly rated laws of nature can only claim validity relative to an index of probability. They are valid on the basis of present experience. Owing to it, they have an empirical basis and are most highly probable.

Experience expands and can bring new empirical reasons³⁴ that bring the law into contradiction with new groups of facts. It requires modification, limitation, or variation, and also then again
 10 has only relative, probable validity. All empirical knowledge is relative. Owing to its meaning to be drawn from the sphere of its authenticity, from actual perception, memory, experience, it cannot be understood as absolute knowledge, as knowledge of some non-
 15 relative being-in-itself. It can only claim to be valid as knowledge of probability. And, that belongs to its essence. It is not some pitiful imperfection “of our mind” that it can grasp natural objects and natural laws only in empirical belief, present them only in imperfect empirical presentations, but objects of the category we call
 20 things are constituted essentially in presentations of the kind we wish to call imperfect and come to givenness in perceptions pointing to new perceptual possibilities with which new possibilities of determination are given. Nature is the world of flux, oneness in the flux of multiplicity. That belongs to its essence. It can only be
 25 posited in terms of “probabilities”, *in a mode of givenness that precisely leaves open differentness, becoming, variation*. And, even the 344
 fixing of laws of variation and laws of functional dependencies of variation can only be probability in accordance with the essence of thingness.

³⁴ New empirical reasons. That calls for yet another analysis that establishes that they lie in different “things”. Therefore, the relativity is always relativity of the being of the thing given and its state compared to other things and states in the same space and the same time. Causality. And, that requires the possibility of the in-itselfness of these empirical objectivities.

<(d) The Source of the Justification of Simple Empirical
Position-takings>³⁵

5 Needed now, though, is a *closer examination of the phenomeno-*
 logical source of the justification of empirical judgments. How is talk
 of justifiable and unjustifiable empirical judgments, of justifiable
 and unjustifiable presumptions to be understood? An empirical judg-
 ment often passes as a certainty, but often also as an incomplete cer-
 tainty, as a plausible presumption, as a slight presumption, whereby
 the opposite itself also makes its claims, carries a certain weight as a
 10 belief and an inclination to believe. How is establishing of norms for
 this area of presumptions to be understood?

 The investigations we have conducted now light our way forward.
 As usual, talk of justifiability and unjustifiability, if it is for its part
 supposed to have meaning and justification, must refer back to a dif-
 15 ference of cases in which, on the one hand, one presumes without
 the objective justification of the presumption's being seen and given
 and, on the other, one presumes in such a way that the justification
 itself is seen.

 Just as in the area of essence-laws, the acts underlying the talk
 20 of justification here are, on the one hand, *simple acts of position-*
taking, simple acts of believing and acts of judgment that seek their
 justification and may have their justification in themselves and, on
 the other hand, acts of a relative position-taking, *acts of believing*
having their rationale in acts of believing, belief claims having their
 25 rationale in prior empirical position-takings. In the field of what is
 analytically logical we have, for example, in order to indicate the
 parallel clearly, independent judgments (as when we say *S is P*) and
 reasoned judgments (as when we say *S is P*, because *M is N*). The
 intuitive givenness of the "because" comes to us in the inference. We
 30 judge the conclusion on the basis of the premises, and by doing so
 the connection is one of logical implication of analytical connections
 of necessity. In the empirical sphere, we also have a "because", also 345
 a rationale for empirical positing by empirical positing and, accord-
 ingly, of empirical predication by empirical predication too. But, the

³⁵ Compare Appendix A XVII and Appendix A XVIII (Editor's note).

connection of necessity is not analytic there, not grounded in a system of laws of essence in general.

- Let us first disregard rationales. Let us consider the, as it were, *thetic empirical position-takings*. Where does their justification come from? What substantiates them? Often, naturally, being motivated by other position-takings that are for their part again connected with others and draw their justification from them. But, that points, on the one hand, to cases of direct substantiation not drawing justification from connections with other position-takings related to other objectivities and, on the other hand, we really wanted first to rule out rationales via connections, as far as possible.

- You will at once understand the difference if I take the simplest cases. Simple perception grounds a *perceptual judgment*. I see it is so. Why? I see it. Now, in what way does a position-taking belong to the essence of perception? We already indicated it once. It belongs to the essence of perception to be either a non-conflicting perception or one “nullified” by conflict. It necessarily has its belief-tendency. If the belief-tendency is not broken by conflict, then it is an “unnullified” tendency, i.e., a simple belief. If the flow of perception introduces a conflict, then belief conflicts with belief. If one is victorious, then it remains unbroken belief, then the one in conflict with it breaks down. It degenerates into nullified belief-tendency, becomes null. It has the quality of nullity. That is the situation.

- Non-conflicting perception necessarily has the simple quality of believing*, and yet the empirical existent is not definitively given by it. The possibility of conflict coming in the course of perception remains open. *It is, though, evident that perception justifies*, that a statement based on perception has its justification, its Evidenz, albeit only empirical Evidenz which, as we can also say, evidently provides a rationale for the perceptual statement that this existent is *hic et nunc* and is as it is perceived there. But, of course, that is how existents are, subject to confirmation by further experience.

- Likewise, it is evident *that memory justifies*. This is the way it is. I perceived it. I am not just saying this, but I recall it. Memory acts as an empirical perception of past being. We know full well that both perception and memory may deceive. We know that, in advancing in the memory context and in synthesis with perception, memory can possibly lead to a conflict between memory and memory, or memory

- and perceptual positing of a present. *But, it would obviously be foolish to deprive a statement based on memory of its justification*, its relative justification, as if it were a statement pulled out of thin air. The quality of belief belongs to memory in the same sense as to perception. It is a consciousness of givenness of what is past, even if it is a simulative consciousness of givenness, a shifting back into the past, a calling it to mind again. But, it figures as a given-again. What is past does not figure in it, as when I think, simply have a presentation of, say, a battle of centaurs, a battle of giants as past. And, this authentic given-againness of the past necessarily brings its beliefs, so long as conflict does not occur with some other givenness, belief in which stands firm, the value of which holds firm. That first given-again then remains simply characterized by a belief tendency and its quality of nullity. Primitive, unbroken belief justifies just because it is primitive, namely as a quality of authentic consciousness of givenness and of that being fulfilled within its limits. Within these limits, just as long as the circle of experience is not expanded, the fulfilment is definitive and consequently confers justification.

- To be kept in mind in this regard, though, is that *perception justifies only so far as it actually is perception*, only so far as the authentic perceptual appearance is concerned, therefore, not in terms of the qualities belonging to the back not perceived authentically.³⁶

- Something similar holds of memory. And, there we also have to take differences between clarity and unclarity into consideration. The more unclear, shadowy, fluctuating, and fleeting the intuition is, especially memory (for which these differences play a much greater role), the less “worth” they have. Belief is impoverished, so to speak, and on the other hand, is enriched with clarity and distinctness. It acquires more richness and with it clearer expression. Or better said, *with increasing clarity, the belief is increasingly fulfilled in the sense of verification of genuine fulfilment*, and that precisely makes up the difference in value. One is, of course, not speaking of differences

³⁶That is not correct. The manner of justification may be different and more incomplete, but the object's existence is also posited with information about its back. Otherwise, how could I justifiably say the thing is there? Therefore, differences of completeness.

between true and truer, but between probable and more probable. Perhaps, one will not wish to use these mathematical terms here. Well, then one must say that *empirical Evidenz has levels corresponding to levels of clarity*.

5 In this way, we therefore already understand talk of *empirical grounds* for small areas. A statement is grounded in experience, more precisely in perception and memory. It carries, so to speak, empirical weight. The more weight the grounds carry, the clearer and more distinct the fulfilling empirical consciousness of givenness is. *Obviously, we are not in a realm of contingent psychological subjectivity here either*. Perception justifies by its phenomenological content, by its essence. Every singular perception with the same essence would justify “the same” statement proper to it in a precisely similar way, no matter where and for whom.

15 Moreover, if we proceed further in the context of perceptions and memories, then it becomes clear *that the empirical weight increases with the comprehensiveness of the empirical context* into which the individual experience concerned fits, i.e., fits without contradiction, therefore, becomes increasingly entwined with its neighbors in the sense of confirmatory agreement.

We see here how perception and memory also derive the capacity to provide a rationale from the empirical context. The same absolutely holds for *expectation*, which must altogether derive its justification from what is given by perception and memory. However, how can perception and memory provide a rationale beyond themselves, 348 not only for what is and was, but will be?

<(e) Critique of Humean Skepticism. Reason in the Realm
of Experience>

30 That expectation judgments are not directly justifiable, that they draw the source of their justification from perceptions and memories is universally recognized. Past experience, i.e., present memory of what is past, can provide a rationale for probability statements that just unfold or describe precisely what is remembered there. But, how can memory accomplish yet more? How is it also to provide 35 a rationale even for statements about what is in the future, not yet

experienced. Along with memory, this very question also concerns perception and the judgments based on it. Perception does not seem to have the right to provide a rationale for judgments about what is in the future either.

- 5 Very closely related to this question is that about the justification of causal judgments and the origin of the concepts of cause and effect. For, inferring from cause to effect is a very common way of inferring from past to future. If we know beforehand that an occurrence of kind *U* necessarily produces an occurrence of kind *W*, that
- 10 it “effects” *W*, then wherever *U* is given, we expect *W* as a matter of course. And, even indubitably justifiably so, since it is a matter of syllogistic inference. But, how do we at any time know that any such bond of necessary temporal succession obtains between occurrences of kind *U* and kind *W*? What justifies the conviction that, given cir-
- 15 cumstances *U*, *W* must necessarily occur? Or, that somehow some sort of causal relationship obtains? Since necessity and legitimacy are equivalent, we thereby see ourselves led to the question as to the source of *justification of universal empirical judgments*. What right do we in general have to assume that any empirical relationship takes
- 20 place universally, that this law of nature or another obtains, and then even the law of laws, the law that all being and everything that happens is embraced in a single, law bound system encompassing all of nature and all of time?

- I have already mentioned that David Hume, who made these problems the object of comprehensive inquiry for the first time, ended up
- 25 with skepticism. He did not find it possible to justify even just the most trivial causal assertion, not to mention any law of nature and the principle of the law bound unity of nature, or as he was wont to say, of the uniformity of the course of nature. He completely rigorously separated the sphere of rational insight from the sphere of blind opinion.
- 30

- On one side, we have the realm of relations of ideas.³⁷ In this realm, the relations are inseparably tied to the terms of the relation, are therefore necessarily given together with them in intuition, and so by generalizing abstraction we can obtain the laws of relation
- 35 grounded in the essence of the concepts concerned. Any attempt to

³⁷ “Relations of ideas” is in English in the original (Translator’s note).

conceive of the behavior of the information falling under these laws as deviant is subject to obvious conflict and therefore impracticable. The negation of these laws means obvious contradiction.

- 5 On the other side, there is the realm of matters of fact,³⁸ of universal assertions about matters of fact and of singular assertions about matters of fact presupposing them, like those about cases of causing. The causal relationship is not a relationship like higher or deeper is for qualities and intensities. The necessity attaching effect to cause, causing and being caused that we so gladly energetically fabricate is
10 nothing that can ever be seen in an individual case. Therefore, there is no room here for generalizing abstraction that allows us to infer universality from the individual case. And, corresponding to this is the fact that nothing in the content of the matter of fact that we call cause and the one we call effect requires a necessary bond between
15 the two, dissolution of the bond to be inconceivable. The denial of a causal relationship, and accordingly the denial of any law of nature, no matter how certain, does not imply the least bit of contradiction. In this entire area, no trace of rational justification in Hume's sense is to be found. All conceivable attempts to produce sources of justification that could accord to any judgments of the kind belonging here a
20 rational preference over the opposing ones miscarry.

- The only thing one can do here is investigate the psychological origin of the judgments and concepts belonging here, therefore, show the psychological sources from which, the human mind being what
25 it is, the semblance of the rationality of these judgments springs and, in the first place, also explain genetically how we in general come to believe what is in the future beyond what is given in perception and memory, how the feeling of obligation to link the effect to the cause universally arises, and how it must be confused with that objective
30 necessity that has its exclusive abode in the realm of relations of ideas. This is, therefore, a summary of Hume's position: The body of empirical judgments going beyond individual perceptions and memories admits of no rational justification, but merely a psychological explanation.

³⁸ "Matters of fact" is in English in the original (Translator's note).

Without going into in a critique of Hume's psychological theories, we can easily see that this skepticism shares the fate of any true skepticism, namely that of becoming embroiled in obvious contradiction. Indeed, it is evident that if empirical judgments do not admit of justification, they do not admit of any psychological clarification either. If our empirical convictions are illusions, then psychology cannot procure us the satisfaction of showing the source of these illusions, or even of helping us just to brand them as illusions. For, psychology itself is an empirical science. If empirical science in general is without rational justification, if empirical science in general is, therefore, an illusion, then so is psychology. Therefore, is it plainly absurd for Hume to rely upon psychology in his empiricistic skepticism and to draw his argumentation from it. All theses about the association of ideas, about habit, about the influences of habit upon the increased liveliness of presentations, about belief,³⁹ and the consciousness of being obliged as effect of habit and association, etc. are obviously not expressions of simple perceptions and memories. They, therefore, belong in the unjustified sphere. They contain statements about causes and effects. In short, we see Hume and the school of extreme empiricists ensnared up to the present day in the most absurd circle.

It will be hard for anyone to be able to accept that Hume, whose phenomenal mental acuity is attested to in every line he wrote, failed to see such a blatant circle. Quite the contrary, he called himself a skeptic precisely because he did not recognize all his theories themselves as satisfactory and yet did not see the slightest way out of their absurdity. He himself repeatedly stressed that anyone who did not wish to trust experience in practice was a fool, and yet he lacked any principle for legitimating experience and consequently also for rating fools as fools.

In his desperate struggle to master the problems, Hume also pondered the idea as to *whether principles of probabilities might be qualified to justify our causal inferences* and, in general, all our empirical judgments extending beyond what is directly given. He rejected that idea. He believed he could demonstrate that probability

³⁹ "Belief" is in English in the original (Translator's note).

judgments originate in the same psychological principles of blind habit and association as causal judgments and so would take us no further. Perhaps, nowhere is the basic sin of the Humean method of critique of knowledge sensed more vividly than in the parts of the

5 *Treatise* just alluded to. It becomes especially clear there that his theory of knowledge founders on the fact that he never himself made clear the essence of pure phenomenological analysis as distinct from psychological analysis and, with regard to that, that he himself did not shed light on the essence of the rational justification possible in

10 the phenomenologically attainable realm of relations of ideas either.

Reason in the area of relations of ideas consists, though, in nothing other than in we ourselves being able to raise the laws of relation there to adequate consciousness of universality. If, as we have done, one has made clear to oneself the meaning of general Evidenz,

15 the Evidenz of the adequate consciousness of law, and then further recognized that the objective validity of the law itself consists in the ideal possibility of an adequately general consciousness of that kind, then one will also search for something analogous within the realm of empirical judgments stating universal, necessary relationships,

20 and where this is given also have the eyes to see it in general. If we know that empirical judgments can only enjoy the status of probability judgments, then we have to abstain from everything psychological, from all inquiry into the genetic origin of such judgments in the empirical I and consider whether the distinctions pertaining to objec-

25 tivity and accompanying principles are not to be grasped through 352 adequate generalization there too, whether reason therefore obtains within the realm of probability just as in the realm of relations of ideas. Or, stated yet better: *We have to look at whether reason may not reign in the realm of experience by the fact that presumptions*

30 *based on experience are subject to principles themselves having the quality of relations of ideas.*

One actually needs <just> to go through Hume's analyses step by step and just cut away the rampant weeds of the psychological interpretation to notice that he himself had before his eyes the

35 distinctions in question and all elements essential for a solution to skepticism and just did not consider them in that way. So, for example, in the chapter about the probability of chance, he wished to investigate how it happens that we give preference to a superior

number of favorable chances. He himself expressed the question in the words: "How does it happen that a superiority of chances influences the mind and begets belief or assent?"⁴⁰

5 That is a psychological question. Let us cast aside what is psychological. We do not wish, therefore, to speak of the "mind" and the influences it experiences through the presentation of various favorable possibilities and of the success of begetting belief. Rather, we simply wish to ask: *In regard to a series of opportune chances, do we have a right objectively to assert probability?*

10 Let us therefore analyze Hume's dice example. Four surfaces of a die are marked with a certain figure. Two are blank. If the die is tossed, we consider it more probable that a figure will appear than that a blank surface will appear. That is, we consider it twice as probable in a ratio of 4:2. There are six equal possibilities. Each has a
15 probability of 1/6, of which four chances in favor of the figure. That comes to 4/6, and 2/6 for the white side. Are not these estimates justifiable by Evidenz?

That in the tossing, if we have no reason to assume it is totally
irregular, the falling die in general first falls on one of its sides, we
20 know from experience. What does this imply? We have experienced time and again that one side comes to lie on top. We assume this also in the present case. Where does this judgment come from in the first place? From where, i.e., by what right? It is, we would certainly say, evident that the judgment that a tossed die falls in the way
25 indicated is different from a randomly stated proposition because it is based on experience, and it is evident that every earlier case of experience that we recollect lends our proposition weight and that it carries more weight in proportion to the number of earlier experiences, memories.

30 Hume would, in general, have had to start there first. He would have had to see the following as something directly evident: The fact that under circumstances *U*, a *W* occurred, in and of itself already

⁴⁰The editor of the German edition here cites p. 175 of the 1895 Th. Lipps German edition of *An Enquiry Concerning Human Understanding*. However, the question does not appear formulated in precisely this way in the paragraphs devoted to the probability of chance in Section VI of the original work (Translator's note).

lends the assertion that in general under circumstances U , a W occurs a kind of weight, and it is evident that this weight increases with the number of earlier cases. If there are no contradictory instances there, no conflicting perceptions or memories or judgments already grounded in experience, then the assertion that it happens in general if U , then W is a justified probability, even though, perhaps, a very slight one in comparison to other probabilities carrying much greater weight. The situation in our example is, then, that memories evidently supply grounds for precisely the indefinite judgment “one of the surfaces comes out on top” because earlier experience showed the most varied cases, sometimes nothing but surfaces with the same color, sometimes surfaces determined differently without favoring any side. What was common to all these changing cases was that precisely “one” side was always on top.

If, though, the indefinite judgment that any of the surfaces must lie on top is then given with a certain weight of experience and as probably founded to a definite degree, then it is further evident that this weight is shared among the six possible cases, that these cases are equally possible, if experience has not favored any one up until then, that means, if these cases are totally symmetrical as regards the grounds provided by experience and do not contain anything that could lend preference to one, or if corresponding to any weight of one is the same weight carried by the others, and vice versa.

Let us then, though, assume a preference. In perceiving, we find the figure on four surfaces and four surfaces only. That, therefore, a figure lies on top is something definite common to four of these possible cases. Then, it is evident that the present perceiving of the figures on the four surfaces lends four times <greater> weight to the assumption, so far as it embraces four of the equally probable cases, that a figure will lie on top, than to the assumption that a blank side will lie on top.

In reflections of this kind, which would have to be polished and made more rigorous correspondingly, it is not at all a question of the human mind and of influences it experiences on the basis of empirico-psychological regularity. Rather, we are simply taking a look at what is given, at the peculiar relationships of justification, at the experienceable quality that the universal assumption acquires from the weight of earlier experiences. And, just as is usual in the realm of

relations of ideas, we then perform a generalizing abstraction there in which we experience a consciousness of law that allows us to see the principle of probabilities involved.

- 5 Every assertion of probability, whether purely symbolic or partially intuitive, is justifiable then. It is a correct assertion of probability if it measures up to the original, authentic empirical data and can experience there the original capacity to provide a rationale of the intuitive situation essentially belonging to it, therefore, if the justification is given in the fulfilment. And, since it is a matter of relations
- 10 bound by laws of essence, a principle can always be formulated here, and we can then also say that an empirical assertion is justified if it can be grounded precisely by such a principle, meaning, if the principle ensures the ideal possibility of the verification of this assertion.

- Accordingly, we understand what a *theory of experience* must
- 15 accomplish and, at the same time, we fully and completely see the possibility of such a theory. In a few steps, we have acquired the clarity that is necessary to keep from sinking into skepticism. What is indicated in these steps now must be accomplished systematically and in its entirety and most rigorously. *This requires a comprehensive phenomenological elucidation of the principles of probability* 355
- 20 (not counting a phenomenological elucidation of the ontological categories) so as to provide the vast realm of experience with that secure epistemological basis that makes an ultimate assessment of the content of empirical science possible and, thereby, at the same
- 25 time, makes metaphysics possible. For, metaphysics would and ought not do anything else but provide us with ultimate knowledge of reality, to the extent that such a thing is attainable.

*APPENDIX I (to §1 and §2): Content of the Lectures
on Logic and Theory of Knowledge 1906/07¹*

- Analytic way.* Topic: the Understanding. Topic for different sciences. Understanding, a faculty of the mind, acts of understanding
- 5 mental acts. Psychology as opposed to logic would be the science of rules, norms of thinking. The “logical” in the specific sense.
- 6.7 <comp. §1>: Animals do not <have>: “logical thinking”.
- 8.9.9 above <comp. §2>: Vague idea theory of science.
- 9 <comp. §3>: *The nature of “the logical”* fundamental for the
- 10 nature of science.
- 9a <comp. §3>: Starting from a high-level science like physics or mathematics.
- 10 <comp. §3>: What is specifically scientific there? Science provides insight.
- 15 <comp. §3 and §4>: Insightful substantiation of its conviction. Certain and presumptive conviction, on both sides: substantiation. Logical insight. Insight in substantiated certainty and probability.
- 14a <comp. §5>: Science architectonic unity (better unity of the substantiation).
- 20 15–23 <comp. §5–§8>: The authentic business of science, the construction of indirect substantiation. Characteristics of “logical substantiation”. Connection with the idea of theory of science. Just as in the *Logical Investigations*.
- 23 <comp. §9>: Added to the difference between authentic substantiation and auxiliary tools is the consideration that logic can be
- 25 defined in different ways as a normative and theoretical discipline.
- 24 <comp. §9>: Logic as theory of the art of: The theory of the art of the science must be dealt with like that of thinking and vice versa. It has its proper justification. The laws of substantiation must supply
- 30 the matrix.

¹ Fall 1907 (Editor’s note).

29 <comp. Chapter 2>: Logic as theoretical science.

- 29 <comp. §10>: *For every logic the theoretical sets of laws “laws of substantiation” claim a central position.* That they are in fact not normative laws as regards their original sense. That, therefore, a logic as theoretical discipline can in fact be defined. 360

- 5 32 <comp. §11>: Science as a system of statements. For statements, to be distinguished: (1) The linguistic judgment; (2) <what is> psychological and social; (3) meaning of the statement (ideal meaning); (4) object. For every word, for every system of statements.
- 10 Inference.

35 <comp. §12>: Shared therefore with the fact of science: (1) Psychology and sociology; (2) grammar; (3) a science of the ideal system of meanings.

- 15 36–42 <comp. §12–§14>: *Science of meanings.* Not Psychology. The world of the mathematical and purely logical a world of ideal objectivities. *A priori.*

- 42a <comp. §14>: *Correlation between meaning and object.* *A priori theory of objects.* Objectivity in general also places concepts and propositions in with a logic as theory of science in the *a priori* sense.
- 20

- 44–50 <comp. §15 and §16>: All of formal mathematics belongs in *a priori* theory of science as *formal ontology*. Compare, though, supplement at 44. The *a priori* laws also hold for absurd objects (round square); therefore, laws of meaning in the better sense? Apophantic categories.
- 25

51 <comp. §17>: Mathematics itself is a science and subject to logic. Logic’s reference back to itself.

53 <comp. §18>: Natural ordering of the theory and discipline of formal ontology.

- 30 54b, 55 <comp. §18a>: “Logical categories”, categories grouping about the category proposition.

- 55 <comp. §18b>: *Apophantic logic.* Two layers: (a) Disregarding truth and falsehood. Morphology of propositions. *Pure grammar* (or pure syntax). (b) The laws of validity. I have said orally that this separation does not merely concern apophantic logic, but concerns all of pure logic. The basic concepts of the mathesis also belong in pure grammar.
- 35

56 ff. <comp. §18c>: Apophantic logic one part of pure (*a priori*) logic as theory of science. The remainder equal to *a priori* ontology.

Including the formal *characterization of formal ontology vis-à-vis apophantics*.

56b <comp. §18c>: To begin with: In virtue of the correlation of meaning and object, apophantic logic is itself to be characterized
 5 *eo ipso* as formal ontology. From the standpoint of the object, we inquire into the forms in which determinate or indeterminate *a priori* and purely formal states of affairs about objects can be enduring. Numbers, aggregates also occur as forms there.

57 <comp. §18c>: But in apophantic logic, set and number function completely differently than in arithmetic and set theory. Numbers characterized as forms, numbers as objects of statements (states
 10 of affairs, universal objects likewise?) 361

58 <comp. §18c>: Accordingly, the difference between apophantic theory, which deals with forms of propositions and states of affairs,
 15 but states laws for objects in general, and set theory, or higher-level ontology that <deals> with sets, numbers, etc., in short, with higher order categorial objects.

59 <comp. §18d>: *A priori* connections between the two. (Here, further reflection is required!)

20 60–71 <comp. §19>: The *theory of theories* (formal theory of manifolds).

71 <comp. §20>: *Metaphysical ontology*. Aristotle's First Philosophy. The sciences of reality (Nature Sciences) as real ontologies. Need for a universal (an absolute, ultimate) ontology.

25 75 <comp. §21>: *Metaphysics*. *A priori* as compared to a *posteriori* metaphysical ontology. (Appendix ad 44, earlier at 79. An important addition: the apophantic laws are object-laws only, if existing objects are simply thought of as substituted, they also hold for absurd objects, therefore, in truth, in their universality
 30 for meanings.)

Up to 83 incl. <comp. §23>: Form and matter. A way of defining formal logic in the broadest sense that excludes metaphysical-*a priori* ontology.

88 <comp. §25–§27>: New step. The science of the sources of
 35 justification and their relationship to formal logic. *Theory of norms of knowledge or noetics*.

From 101 <comp. from §28 on>: *Theory of knowledge*.

102 <comp. §29 and §30>: Macroscopic and microscopic (superficial and deeper) treatment of noetic problems.

102 <comp. §29>: (a) Noetics of the superficial.

104 <comp. §30>: (b) The deeper layers of problems of noetics.
The epistemological problems. Act, meaning, object.

114 <comp. §30e>: Differences in value. Evidenz.

- 5 117 <comp. §31>: Position of epistemology in relation to the logical disciplines defined up until now and to all sciences. It is first related to all sciences through the medium of formal ontology (and real ontology) (Conclusion 121b below). Philosophy of mathematics and mathematics, philosophy of apophantic logic and apophantic
10 logic (according to the *Prolegomena*).

120 ff. <comp. §31d>: *Natural science and philosophical research.*

124 <comp. §31d>: The three connections in relationship to the disciplines different up until now.

- 15 125 <comp. §32>: Psychology and critique of knowledge. How do noetics, and at once in the higher sense of critique of knowledge, stand in relation to psychology? (Only in the sense of whether grounded in psychology).

- 20 126 <comp. §32a>: Independence of the substantiated intercon- 362
nections of empirical individuality. Nevertheless, the investigation at first appears to be psychological.

131 <comp. §32c>: What must theory of knowledge have as tasks. It therefore seems to be grounded psychologically.

- 25 132 <comp. §32c>: No. Psychologism original sin. More careful substantiation.

134 <comp. §33a>: Skepticism.

139 <comp. §33b>: Critical “skepticism”.

140b <comp. §33b>: Critical *epoché*.

- 30 141–144 <comp. §33c>: The difference from Cartesian skepticism as method.

144–146 <comp. §34a>: Question of doubt, how theory of knowledge is then to be possible however. That it is possible.

- 35 148 <comp. §34b>: All sciences harmonized with phenomena. Transcendence what is authentically problematical, for this reason what is to be excluded.

150 <comp. §35a>: Recent consideration of the question “Theory of knowledge and Psychology”. Psychology as natural science.

152 <comp. §35b>: Psychological inquiry into <the> origin of knowledge. Spencer.

154b <comp. §35c>: If not genetic psychology, then surely descriptive psychology as foundation?

5 155b <comp. §35c>: *Not descriptive psychology either.*

156 <comp. §35d>: *Phenomenological reduction*. Appendix: (1) phenomenological perception (different concepts of perception) <comp. Appendix A XI>; (2) concept of “discovering” <comp. Appendix A XI>; (3) different position-takings: natural-empirical position-taking, critical position-taking (natural-critical), phenomenological position-taking, criticizing position-taking <comp. Appendix A X>.

161 <comp. Chapter 6>: *On phenomenology* (to the end).

163 <comp. §37a>: What can phenomenology establish that is authentically scientific? The phenomenological “individual”, not to be drawn from conceptual determination.

166 <comp. §37b>: Remaining are the phenomenological kinds.

167 <comp. §37b>: And, the *haecceitas*. Time.

168 <comp. §37c>: Also imaginary intuitions can serve as bases for beholding essences.

169b, 170 f. <comp. §38>: Also the appearing objectivities (Identity, unity, plurality, whole and part, species, genus, thing, essence of transcendence, etc.). Intentional objects as such (in perception and imagination, etc.).

25 171 <comp. §39>: Independence of essence laws.

172 <comp. §39>: *A priori*.

173 <comp. §40>: Belong in there the “principles” in the genuine sense.

174 <comp. §40>: Ideal of philosophical knowledge.

30 174b <comp. §40>: The phenomenological method the specifically philosophical method.

175 <comp. §40>: Looking back: Decisive meaning of the issue of psychology for critique of reason. 363

175b <comp. §41>: Relationship of phenomenology to the *a priori* sciences <on the one hand> and to psychology on the other.

176 <comp. §41>: That every phenomenological establishing of essence can be transformed into a descriptive-psychological one.

177 <comp. Appendix A XIV>: Important page as appendix with misgivings that were not expressed in the lectures.

APPENDIX II (to §1 and §2): Philosophy <On the Relationship Between Science in the Usual Sense and Philosophy>²

5 1. Efforts aiming at ultimate foundation as ultimate logicization of the sciences. Also ultimate logicization in the sense of a perfecting of each science in every respect. Leaving naive experience behind. Rigorously systematic distribution of the problems of the field, rigorously systematic differentiation of the basic knowledge, of the axioms, rigorous determination of the basic concepts.

10 In mathematics: rigorously “axiomatic” performance, systematic separation of the mathematical fields, systematic determination of their problems in relation to one another. In apophantics, the rigorously systematic separation of the different meaning forms, the differences determined by form and those determined by core contents. The systematic
15 clearing up of the problems of the theory of inference and of relationships between theory of inference and theory of validity in general. Therefore, everything that is directed to the most complete development of the sciences possible and the most systematic, transparent foundation possible. However, this is not sufficiently clear.

20 In the area of general ontology, it is a question of a complete survey of the basic problems and their interconnections, of a complete survey of the ultimate foundations, of the basic concepts and basic principles and the manner in which the essentially different fields
25 proceed from them. Or, starting from the individual disciplines as those that have in fact developed: going back to their main unity and completion through subsequent disciplines, exhibiting groups of problems yet to be worked on and the principles pertaining to them. Further analytical going back of existing disciplines to their
30 ultimate principles. Analytical investigation of their methods, or of the *a priori* principles directing them. In this way, though, for every science. Therefore, for natural sciences: that goes back to systematic ontology of nature. Likewise, for sciences of value, the ontology of values. Therefore, “theoretical” arranging (logical) of all sciences.

² Presumably Fall 1907 (Editor’s note).

What does logically mean here? Surely, scientifically and science- 364
theoretically (namely going back to the principles of the substantia-
tion). Scientific completion: goal of the completeness of knowledge
and of its systematic unity in the substantiation.

- 5 2. The problems of the future, the “critical problems”. The spec-
ifically philosophical sciences. They are then though also sciences.
There must, therefore, also be a “logical” completion here, a logici-
zation, not merely an extensive one, but also the intensive one. *Are*
the critical sciences in the same sense as the non-critical ones are?
10 Or, do we have to contrast science in the concise sense and “Cri-
tique”? All that is not satisfactory.

Science of fact (natural science, science of values)—Ontology—
“Critique”. Lower-level sciences—sciences of principles—critical
disciplines.

15 *APPENDIX III (to §8): <Note to the Concept of Logic>*³

- Since logic has so often been defined as the art of proof (similarly
Mill also, introduction),⁴ in an appropriate place of the theory of the
art of thinking, it would be good to turn to the theory of the art of
substantiating. And then, formal logic is immediately represented as
20 a theoretical discipline of analytical inferences and theories, disci-
plines.

*APPENDIX IV (to §22): <Ultimate Particulars>*⁵

- Everything particular is related to ultimate particulars, unless it is
not already such. These ultimate particulars are individual particu-
25 lars. Are individual particulars, though, necessarily realities? How
is it, for example, with phenomenological particulars and with the
phenomenological “this-there!”?

³ Presumably, end of 1908 (Editor’s note)

⁴ J. St. Mill, *System der deduktiven und induktiven Logik. Eine Darlegung der Grund-
sätze der Beweislehre und der Methode wissenschaftlicher Forschung*. Mit Genehmi-
gung und unter Mitwirkung des Verfassers und mit Anmerkungen versehen von Th.
Gomperz, 1882, pp. XII ff. (Editor’s note).

⁵ Perhaps 1908 (Editor’s note).

Further, property-concept, etc. matter vis-à-vis form, for example, specific quality like red.

- 5 I contrast general metaphysics with natural sciences. Does not, though, what is phenomenologically particular also belong in metaphysics? Are realities (things) not merely a complete manifold of categories and alongside other categories of individualities (material things)? Existence of absolute matter, existence of things, etc.

APPENDIX V (to §24): <A priori Ontology and A priori Metaphysics>⁶ 365

- 10 Surely belonging to this all of chronology (not chronometry and chronology in the usual sense), kinematics, and geometry. The latter presents many difficulties, and it is questionable whether it is *a priori*, like ordinary Euclidean geometry. About, for example, evenness (homogeneity). For, it belongs to the *a priori* metaphysics of the proposition: Every thing is *a priori* mobile, i.e., in “mere” motion.

- 15 Further belonging here: Every thing is *a priori* changeable, i.e., *in infinitum*. Every thing has a space, lasts (endures) a time, and has “matter” filling this space (or, filling this time). As changeable, every thing is subject to systems of laws that the concept of change
20 in general prescribes. Every thing is impenetrable: two things cannot fill up the same space at one and the same time.

APPENDIX VI (to §30d ff.): <Psychological and Phenomenological Subjectivity>⁷

- 25 A point of great importance to be considered in the presentation is how, in the problem “of ideality and objectivity constituting in subjectivity”, subjectivity sometimes differentiates itself as psychological (empirical), sometimes as subjectivity in general, consciousness in general, phenomenological subjectivity. To be reflected upon is how one and the other is to be indicated in the presentation, whether

⁶ Perhaps end of 1908 (Editor’s note).

⁷ From the time of the course of WS 1906/07 (Editor’s note).

as first blending and then having to separate off, or as somehow separate from the start. And, how then the transition occurs by which the “authentic problem” that in itself earlier lay in “subjectivity in general” and then just in “psychological subjectivity”.

- 5 *APPENDIX VII (to §31b and §32): <The Completion of the Natural Sciences Through the Epistemological Elucidation of the Logical and Ontological Disciplines>*⁸

- What holds for arithmetic holds for all formal-mathematical disciplines, for ancient syllogistics, as well. The theories are in general
 10 good and in part even unsurpassed, but the foundations determined more by feel and instinct than by reflective analysis and often not very sound. As a consequence, mathematicians do not, though, know how to provide us with information about which realm of knowledge
 15 their investigations finally concern. With mathematics, are we in the realm of physical nature or in the realm of the mind? Are we in a real or categorial realm? And if in a categorial realm, in which one? Furthermore, does arithmetic have an essential relationship to human beings and their acts of thinking or acts of counting, ordering, measuring? Or, does it have an unconditional universal validity that rules
 20 out any such limitation? About that, we must, though, have information if we want to know what mathematical science accomplishes in our knowledge. 366

- So, it is clear to begin with that, through its elucidations of mathematical science, only critique of knowledge gives final completion,
 25 final conclusiveness: not extensively from the angle of theories that it is the specific task of mathematicians to develop further into infinity, but with respect to the ultimate foundation, clarification, epistemological utilization, without which we do not know what we have in mathematical knowledge in general and in what way we ultimately lay claim on
 30 it, what attainments we can expect of it in the determination of being. And naturally, the same holds for all of mathematical methodology, the word understood, not technically, but logically and noetically.

⁸From the course of WS 1907/07 (Editor's note).

According to our findings, which are themselves already to be characterized as epistemological, formal mathematics is concerned with the realm of formal categories. With respect to all these categories, the problem of elucidation is naturally to be posed and the questions about the relationship of ideal objectivity and subjectivity are to be posed. To be reflected upon comparatively are, on the one side, the forms, and on the other, the kinds of acts in which they can act in conferring meaning and the meaning of the objective relationship pondered everywhere. For this, it is, though, decisive to take into consideration the corresponding Evidenzen in which the givenness of objectivities of correlative forms is constituted and the meaning of the givenness therein is finally revealed and must be revealed. Consequently, the formal logical, or formal ontological and noetical, is always to be drawn into an interwoven investigation.

The same holds for real ontology. And here, where no scope is given to far-fetched deductions, and the main task lies in separating the real categories, sound determination of their content, and in setting forth the essence-laws grounded in the idea of reality, we can flatly say that the main achievement in general is only to be realized by means of epistemological investigation, which is the content of the genuine thing-concept or property-concept, of the concept of cause, of the time-concept, etc., constitutive for all thinking of realities. There, epistemological inquiry can first procure clarity and sound results in deep-delving analyses.

If, however, epistemology has shed light on these logical disciplines, given them absolutely sound foundations, procured absolute clarity for them with respect to formal and ontological categories and laws, if it has further *solved the problem of givenness, the relationship of objectivity, ideality and subjectivity* for all these meaning- and object-categories, then everything is obviously achieved that is in general to be achieved epistemologically. The individual sciences, the extralogical ones then have no more new problems to pose us. In them, then, only occur special complexes of formal thought configurations and particular cases of real categories. By critique of knowledge guided by complete logic, or by epistemological elucidation of everything logical as regards all elements and elementary laws, all matter is completely given in order to be able to realize the ultimate utilization of prevailing theories and disciplines of the natural and special sciences and with that to obtain the metaphysical knowledge sought. Or rather, this utilization itself gives

metaphysical knowledge, since according to our conception, metaphysics is no more than absolute science of being. Of course, I mention besides that we act here as if ultimate knowledge of reality had nothing to do with ethical and esthetic values. We act here as if understanding or reason were everything. But, I shall not go into that now.

*APPENDIX VIII (to §33a): <The Meaning of Skepticism
for Theory of Knowledge>⁹*

Overcoming skepticism is the permanent task of theory of knowledge. Belonging to every essential epistemological problem are skeptical theses and theories. And, belonging to every stage of theory of knowledge is a specific type of skepticism. Every solution of epistemological problems leaves other problems behind that, as long as they are not cleared up, trouble the human mind. With the unclarity, apparent contradictions result that, if they cannot be resolved, set epistemological reflection on the wrong track and lead to convictions that threaten the possibility of one type of knowledge or another.

The confusions into which epistemological reflection has landed are so natural and manifest that basically anyone willing to struggle to attain epistemological convictions must have once experienced them. *All epistemologists must go through the great school of skepticism.* In no other way, can they, in any case, penetrate so deeply into the essence of problems veiling the meaning of knowledge as when studying the negative theories of knowledge, when they benefit from the acumen employed to prove the impossibility of knowledge or the impossibility of rational justification of knowledge.

There is not only conscious, openly avowed skepticism, but also unconscious skepticism. Almost every false theory of knowledge is unconscious skepticism. With the intent of clearing up the meaning and possibility of knowledge, theories are set up that, examined in terms of their consequences, are antagonistic to the possibility of knowledge and consequently, if one persists in their viewpoint, would have to become open skepticism.

⁹ Presumably from *Allgemeine Erkenntnistheorie, Vorlesung 1902/03* (Dordrecht: Kluwer, 2001) (Editor's note).

Hume, the greatest of the empiricists, was an open skeptic. Most extreme empiricists, though, however much they follow in his footsteps, combat skepticism. They claim to have achieved full understanding of the essence of knowledge, but do not notice that they have not in principle progressed beyond Hume and so, without truly having wanted it, are skeptics. The study of such unconsciously skeptical theories is also extraordinarily instructive. Nothing is more beneficial to budding epistemologists than the critical analysis of misguided epistemological attempts of this kind and the proof of the skeptical consequences on account of which such theories inevitably come into contradiction with what they themselves presuppose as theories.

Altogether we can say: Skepticism is highly significant historically for the theory of knowledge, since through it the epistemological conscience was roused, epistemological problems driven to the surface. And, it is furthermore methodologically significant for the epistemologist and initiate, inasmuch as occupying one's mind with it draws attention to epistemological problems or repels false formulations of problems and displacing of problems, teaches avoidance of wrongheaded epistemological solutions. Up until now, talk has been of skepticism as theory. We can say as negative theory of knowledge. We now want to speak of *skepticism as method*, as Descartes wielded it in the beginning to arrive at the theoretical starting points of all clarification of knowledge.

We must in fact begin theory of knowledge as skeptics, as skeptics with respect to all sciences, be they ever so exact, on ever so high a level, as skeptics with respect to all convictions that we owe to our individual perception and experience and to instruction by others, the historical tradition, etc.

APPENDIX IX (to §34b): <The Presuppositionlessness
of Theory of Knowledge. Not All Knowledge Is Burdened
with the Problem of Transcendence>¹⁰

We also arrive at this through the following reflection: Every science states something about objects, that they are of one nature or another. *The problem of the being-in-itself of the objects that we are*

¹⁰From the WS 1906/07 course (Editor's note).

- to grasp cognitively is the sole reason why no scientific proposition may be laid claim to in theory of knowledge.* The problem that we have formulated with regard to the ideality of the meanings has to be ruled out in this regard. All scientific principles and theorems in which the result of scientific knowledge is expounded state something about facts. They have, by doing that, their meanings, but they say nothing about the meanings. They, therefore, prejudge nothing in this regard, which problems we may otherwise find with regard to the meanings. We must make an exception only of formal logic.
- It, of course, speaks about meanings. *But, it makes meanings into objects in themselves. The transcendence*¹¹ lying in the ideality of the meaning first becomes manifest because we, for example, make judgments about meanings, about propositions. And, formal logic does this in general, legitimate ways. *It may, then, not be laid claim to either*, nor may its laws be presupposed as preestablished. But, for no other reason than propositions of the remaining sciences. It also truly states propositions for transcendent objects existing in themselves and their knowledge. By making meanings into ideal objects in themselves, the latter are transcendent to the cognitive acts of logicians. They must truly be what they are, whether logicians think and know them or not. Everywhere, therefore, it is the *transcendence of objectivity* that, as a radical problem, prevents sciences and their findings from being admitted epistemologically: *Science and transcendence belong together essentially.* All natural sciences *eo ipso* aim at being-in-itself, whether at real or at ideal transcedents.

- If, then, transcendency, since it is a problem, must be held in abeyance everywhere, then the question arises as to *whether all knowledge in general is burdened with the problem of transcendence*, whether there is no starting point in thinking and stating that precludes all concern with transcendence, whether perhaps a realm of statements is to be designated that express what is purely immanent, purely immanent in a sense that precisely does not bring the problem of transcendence with it. Such statements realized in Evidenz would not prejudice the meaning of the epistemological issues, they would no longer be concerned by the challenge of epistemological skepticism, we could appeal to them as knowledge, they

¹¹ Better than “transcendence”, let us say “the being-in-itself of the object vis-à-vis knowledge”.

- would not have to be held in abeyance. And, there, we come again upon the *statements of "pure consciousness"*, upon the statements that, purely relative to the realm of the Cartesian *cogitatio*, preclude all transcendence. The objective field of these statements are the occurrences of consciousness, perceptions, presentations, memories, statements, also thoughts and statements, that concern whole theories, sciences, but always taken only as phenomena of consciousness. I can look at each such phenomenon and by analyzing I can bring out what I find in it immanently. For example, I have the perception of this table. The table is something problematical.
- 10 Not the perception. I can then make it into a purely immanent object and study it. I can see that it passes as a perception, for example, of this table, that it in itself is a consciousness of an existing table, a presuming there is a table there. I can, therefore, whether the table is or not, whether it is something entirely different than what I have in mind there in the perceiving, study the perception, as it were, ask it how it presumes the being of the table, what is that in it: this presumed present of the thing, etc. As with the phenomenon and the objective reference of the perception, I can put before me the phenomenon of remembering, the phenomenon of expecting, the phenomenon of the statement in its various forms, in short, every possible event within the sphere of knowledge. I do not use any knowledge of transcendency as regards its validity, let none be preestablished for me. All science, all knowledge is at my disposal, only I may not take it as a premise, but only as phenomenon. I take no finding from any science in order to build upon it, to derive from it. I take, though, or may take from any science what I wish, but as object of investigation, as phenomenon into whose meaning I wish to inquire.

*APPENDIX X (to §35d): <Critical and Phenomenological
Position-Takings>¹²*

1. I judge empirically, in terms of the natural sciences, psychologically, mathematically, I have a perception, I take what is appearing as existing, I reflect then on the judgment, I look at it: this. I am angry and look at it, I evaluate and look at it. That would be *phenomenological position-taking*.
2. *Critical position-taking*: (a) refraining from judgment, when one visibly doubts, doubts whether the things (*Sachen*) judged are in order.

¹² Presumably from the time of the WS 1906/07 course (Editor's note).

Above <(b)> reduction of the judgment to a mere judgment-phenomenon (judgment presented). In the first case of the phenomenological position-taking, I judge again and look at the judgment. In the second case, I suspend the judgment and make it, without even judging, into an object. It is a judgment-intuition, but not judgment-intuition with lasting judgment itself.

3. *The critical position-taking of theory of knowledge*: I really judge, I really take things to be true (*nehme wirklich wahr*). I do not suspend belief. But, in phenomenological and epistemological (critical) meditation, I do not make any use of this belief. My judging does not go on in the realm of the matters believed, but in the realm of the “experiences” to which the belief belongs, that is the realm of the *cogitationes*. It is there that the critical bracketing out is performed.

All objectivity obtained in phenomenological reduction belongs to phenomenology. What is a matter of immanence and what is a matter of transcendence is ascertained in phenomenological reduction. All transcendence is “bracketed out”. It belongs in the non-phenomenological sphere. What is non-transcendent, what is immanent is the sphere of phenomenology.

APPENDIX XI (to §35d): <External, Inner, and Phenomenological Perception>¹³

To secure the clarity obtained in these meditations, it will be useful if we discuss a distinction between “perceptions” quite closely connected with the distinction between natural and phenomenological apperception (or objectification).

Usually, people differentiate between *external and inner perception* and consider this distinction exhaustive. It is supposed to be both a differentiation in terms of possible perceptual objects and a separating in terms of epistemological and noetic status. External perception relates to external objects, to physical things, processes, and so on. As I-experience, inner perception relates to what is mental. External perception is deceptive, inner perception evident (as the Cartesian meditation on Evidenz teaches). The former is epistemologically problematical, the latter unproblematic. All that is

¹³ From the time of the WS 1906/07 course (Editor’s note).

thoroughly wrongheaded, as I demonstrated in an especially detailed manner in the appendix to the 2nd volume of my *Logical Investigations*. I draw attention to the following distinctions here:

5 1. *Natural, empirical perception*: (a) external perception as perception of mental events, for example, the perception of a red thing standing before me. This perception attributes temporality and spatiality to what is perceived, though with some indefiniteness. The thing has its spatiality that puts it in its place in space, namely points
10 beyond itself in a spatial environment that, for its part, in indefinite ways in turn points to a spatial environment, etc. And, likewise for time. Also belonging to external perception is the fact that it is “external”, that it has a relation to me and, more precisely, to my body, which is always a component of the thing-environment “co-perceived” in the thing-perception.

15 2. *Psychological perception* as perception of my I and of my “experiences”. For example, I look at my external perception (not at the thing). I look at my experience of a fantasy-presentation, and so on. What I perceive there is perceived as I-experience, grasped as that, or
20 is the I itself: The I-body that is externally perceived, but also the inner I, that is no more something apart from the I-experiences than the thing of external perception is something apart from a thing’s properties. So, both external and inner perception, therefore, bear their correlation with themselves. External perception bears an apperceptive relation
25 to the perceiving I, inner perception, an apperceptive relation to the I-body and other “external nature”. In both cases, we are operating within the realm of naturalness and objectively within the realm of nature. Everything appears put into its place there within a context that is partially spatial, everywhere and always temporal, and in which
30 temporality is a material (*sachlicher*) context.

35 3. *Phenomenological perception*, an expression that I would now like to accord preference to over the expression “adequate perception” used by me earlier. What is essential is not primarily the adequacy, but the *phenomenological reduction and position-taking*. Phenomenological perception concerns the pure phenomenon of this reduction. What
is perceived in it has no place in objective space, but not in objective time either. Nothing of transcendence is posited with it: the pure phenomenon is a pure, plain This, an absolute givenness and nothing problematic.

4. However, we have another important distinction to make. (a) Phenomenological perception, that is the natural way of understanding the expression, is the being-given as now and “actually real” of, for example, a sound that I hear, of a judgment that I make, a fantasy that I experience in “reduction”. Belonging to that is the “now”, the phenomenological time, the duration, etc. Difference again between *the sound that lasts* and the *sound-phenomenon* as flow of time in which the sound is identically the same. The first, the phenomenologically real one in the genuine sense. But, matter of fact¹⁴ is both;
- 5 (b) The sound and the flow of the sound-appearance can be given again in imaginatively calling to mind or in the form of re-remembering. The opposite of perception is calling to mind. In both cases, the sound, the color, etc. appears. And, even in fantasy, sound itself is “given”, namely in contrast to confused and symbolic presentation.
- 10 This givenness is the *givenness of the essence*. Sound is a given This in contrast to the symbolic presentation that refers to the sound, but does not “give” it. This givenness is the givenness of the phenomenological theory of essence.

- Naturally, these distinctions infect the talk about *finding and what*
- 20 *is found* popular among many psychologists and epistemologists. Naturally, it is by no means sufficient simply to say: We take the contents that we experience, not as a signs for something else, but just as they were found. *This finding must first be characterized as a phenomenological finding by phenomenological reduction.*

- 25 *APPENDIX XII (to Chapter 6): <Phenomenology as Essence
Analysis of the Consciousness. Its Relationship
to the Other A priori Disciplines>*¹⁵

- However, an objection to our idea of phenomenology might want
- 30 appending here. If phenomenology deals with what is specific to consciousness and to the essential systems of laws grounded in it, therefore *a priori* systems of laws, how does it differ from the *a priori* disciplines that have long since more or less purely and perfectly established themselves under the headings of pure logic, pure
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¹⁴ “Matter of fact” is in English in the original (Translator’s note).

¹⁵ Presumably from the course “Urteilstheorie” of SS 1905 (Editor’s note).

mathematics, pure theory of probability, pure kinematics? And, if meditation on essence has not yet secured a place in the sphere of emotional and volitional experiences and not led to corresponding *a priori* disciplines, especially not to an *a priori* theory of values, to an *a priori* ethics, and so on, then performing the corresponding investigations would lead to disciplines that cannot be collected together with the aforementioned ones and put together as a single discipline under the heading of phenomenology. And, all the more, if essence laws are set up in the sensory realm, in the realm of qualities, intensities, and so on, are not these laws completely heterogeneous compared to those that we find in *a priori* logic, theory of probability, ethics, etc.? Are not essence laws of the sensory species thoroughly different from those of the species in the intentional sphere?

The objection is obviously not without a certain justification, and I must expressly retract a somewhat misleading declaration that I made in the past hour inasmuch as I distinguished a descriptive and a nomological part within phenomenology. If we establish deductive theories on the basis of the different specific essences that are to be differentiated in the intuitive analysis of consciousness and on the basis of the essence laws directly belonging to them and to be grasped in direct Evidenz, then *a priori* theoretical disciplines result for us, so we shall naturally have to delimit the unity and particularity of such a discipline through the unity and distinctiveness of its basic legitimacy, i.e., through the unity of a generic belonging together within whose framework direct Evidenz sets up *a priori*-specific connections. The theory of cardinal numbers is one discipline and the theory of probability another, because in both cases, the determining genera and essence laws belonging to them are separated. The arithmetic axioms and the axioms of theory of probability do not overlap one another. They create completely separate theories and disciplines. Only by way of application can pure arithmetic and syllogistic laws function in theory of probability.

However, needed all the same is a *discipline unifying and in a way seeing together everything a priori* that relates to all specific essences and essence complexes. That is phenomenology and, consequently, the critique of *a priori* reason inherently connected with it, therefore, what people call theory of knowledge, theory of values, theory of will or, with Kant, critique of theoretical, of practical reason, or esthetic reason (of the faculty of judgment). Rooted in the need for these critiques (therefore, in the realm of knowledge

for a theory knowledge) is also need of phenomenology. Through phenomenological elucidation, epistemological problems become solvable and, likewise, the parallel problems of the theory of values, or as we also say, of ethical, esthetic, problems etc. skepticism.

- 5 To illustrate the situation, I remind you of an earlier observation. I 374
 said that having Evidenz and having clarity about what one possesses in
 it and with it are two different things. Namely, in determining the axioms
 of an *a priori* discipline, we have Evidenz, see in it a system bound by
 laws of essence. All the same, we become entangled in epistemologi-
 10 cal problems that try to push us in the direction of absurd skepticism,
 psychologism, relativism. How does it happen? For example, that of two
 contradictory propositions one is true and one false, that double nega-
 tion is equivalent to affirmation, and so on. That is, however, given to
 15 us with apodictic Evidenz as belonging to the essence of true and false,
 of yes and no. And yet, we find the errors in theories empirically vapor-
 izing the meaning of such laws and asserting that with the biological
 evolution of human nature the truth of these laws could undergo change,
 that they expressed something belonging to the incidental constitution of
 human nature. If we grasp an essence-complex in Evidenz, how could
 20 we reinterpret it into a factual one, how falsify the *a priori* to make it an
a posteriori? Or, when we think about the axioms of the *a priori* theory
 of cardinal numbers, like $a + b = b + a$. We grasp them as essence laws.
 We grasp the cardinal number in general as the specific essence in the
 act of collection and belonging to it that essential belonging together and
 25 equality in the form of the adding of collections in general. And then
 comes a man like Mill who had the same Evidenz and says numbers are
 expressions of physical facts and the law expresses a common physical
 relationship! And again, if the psychologist says to us that plurality and
 number can only be given to us in collective combination and in count-
 30 ing, equality in comparing, difference in distinguishing, identity in iden-
 tifying, judgment in judging, inference in inferring, etc., therefore, all
 purely arithmetical, purely logical laws must obviously be psychological
 laws, therefore, empirical laws, etc.

- Enough examples. How are wrongheaded theories, how are quar-
 35 rels and the hardest problems possible here after Evidenz obtains?
 In response, we at first say: The axioms concerned and the concep-
 tual essences grounding them are not always given to us by way
 of Evidenz, but only under certain circumstances. If once we have
 clearly seen them, then we operate in symbolic consciousness with

the verbally formulated terms and statements. We make do with a vague understanding of words and rely upon truth without continually looking at it, completely seeing it. In particular, also easily lost in the reflection that attaches to these propositions and concepts and would connect what is referred to in them with very far-reaching psychological and biological knowledge is the feeling for the evidencing intuition, and so the door and gateway to falsification opens up.

- By revealing the essential difference between symbolic thinking and authentic thinking—between givenness of a relationship in the form of essential Evidenz seen essentially and that inauthentic givenness lying in vague symbolic thinking—phenomenology calls our attention to the sphere of Evidenz. It tells us what authentically and truly makes up the content of the disputed concepts and principles. One can and one must grasp that precisely where it is authentically and truly given. Only there is the authentic meaning realized. The interpretation may concern only that. By rising to the principle of adequate analysis of Evidenz and applying this principle everywhere, it *eo ipso* makes the transition to a comprehensive analysis of consciousness and by doing so goes beyond that isolated consciousness of Evidenz that is naively given in the insightful grasping of the axioms. Not only do phenomenologists raise the Evidenz itself and its opposite, erroneous presenting and judging, up to the object of a general analysis of Evidenz and procure for themselves clarity about its universal essence, but also with respect to the definite conceptual essence and essence-connections expressed by the axioms, they achieve more than someone grasping the same axioms naively, though evidently.

- If we see that $a + b = b + a$, then this insight is grounded in the insightful grasping of the essence of number. Why, then, is the way number stands in relation to counting still problematical? Why is there an inclination to vaporize the ideal into the subjective, and then the psychological, and to misconstrue the laws of essence as empirico-psychological? Well, because number abstraction has as substratum a moment of consciousness that is entwined with other moments. The whole concretum, the entire momentary experience together with its empirical psychological apperception, its customary relationship to the empirical I is the substratum of species abstraction, substratum of consciousness of Evidenz. Those who dwell naively in the Evidenz of the axiom look directly at the moment and directly perform the gen-

- eralizations lying in the sense of the axioms. But, those who subsequently reflect upon the meaning of the axioms may readily look at the whole concrete complexes instead of at these moments and follow the course of the empirical apperceptions connecting on to them. And, this
- 5 will have to come about all the more readily since the whole natural course of thinking is aimed at empirical apperception, while it requires particular training to keep within the bounds of pure givenness. So, in that phenomenologists perform purely immanent, complete analyses here, in that they study all isolated moments contained in the concrete
- 10 consciousness, in that they discern the moment of empirical apperception among them, and in that they do not study all these connections and relationships as contingencies of the empirical moment and empirical consciousness, but in general reflection as essence-connections, they make the solving of all epistemological problems possible,
- 15 obtain clarification of the essence of all knowledge. It is not counting as empirical datum of a mental nature that interests them, but counting in general, therefore specifically, and numbers in general, and the question as to how the species number stands in relation to the species counting and, likewise, how meaning in general stands in relation
- 20 to meaning, to presenting, to judging, in connection with which it is again of no importance at all whether the act of meaning occurs in a human or a divine consciousness and is not a question of the act of meaning's being a reality fitting into actual nature. Therefore, aimed at 376
- is a comprehensive essence analysis, or if one wishes, *an all-embracing analysis of consciousness*, but not an analysis of consciousness as a fact of nature, rather of *consciousness in general*, i.e., of the essence of consciousness, of the essence of all essence connections to be seen in Evidenz. Only through comprehensive, complete elucidation do we understand isolated Evidenz and do we remain protected against
- 30 misconstruing that. Only in this way do we avoid the difficulties that isolating and the inclination to a faulty metabasis stemming from confused reflection bring with them. That is indeed the genuine sense of the traditional problem of origins. Phenomenology is the all-embracing theory of "sources". It teaches us to be acquainted with the matrix
- 35 of all principles, to make objectivity possible, the essence of the sensorial species and the essence of the intellectual forms, to which all valid thinking is bound for essential reasons (and not for empirical ones). It does not to lead us into mystical matrices, but its realm is the realm

of pure Evidenz or clarity, the realm of supra-empirical ideas, supra-empirical and yet, indeed precisely for that reason to be given directly, namely in seeing, ideating abstraction.

- Accordingly, it is clear how we *situate phenomenology and the*
 5 *a priori theoretical disciplines in relation to one another*. Phenomenology is all-embracing analysis of consciousness proceeding by purely seeing, i.e., exposition of all species belonging to the essence of consciousness in general and to its primary contents, therefore, naturally also of the species of the relationships and interconnections
 10 that belong to any species that can be given adequately. The study of the essence relationships then automatically also yields the axioms acting as the major terms of the *a priori* disciplines. The deductivo-theoretical extrication of all the consequences hiding in these axioms, therefore, of the systems of essence laws indirectly contained
 15 in them, phenomenology entrusts to the different *a priori* disciplines. Obviously, belonging to itself, to its sphere of direct, purely descriptive essence analyses of consciousness, are all principles to which the theoretical procedure of indirect derivation in these disciplines is subject. While the interest of the *a priori* disciplines of arithmetic,
 20 of syllogistics, of probability theory, of *a priori* theory of values, etc. is systematically aimed at deduction, at the unfolding of systematically deductive theories, phenomenological interest is aimed at analysis and description. While those disciplines start from a point or field laid down in phenomenology and follow a course from there
 25 to unfolding deductions, phenomenology has the interconnection of all such points and fields in view, the combination, the oneness, the interconnection of the whole consciousness, in all essentials, what can be seen in general intuition. *Phenomenology is the science of sources*. Therefore, all the genuine axioms, the sources of all *a priori*
 30 *disciplines* lie in phenomenology. That already means that, if the principles to which any scientific procedure is subject, to which every empirical finding is also subject, are to be able to be objectively 377
 35 valid, they belong in phenomenology.¹⁶

- Phenomenology merges into *theory of knowledge* as soon as interest
 35 est is directed to solving problems lying in the relationship between

¹⁶The entire reflection confuses logical clarification and essence clarification of knowledge.

psychological subjectivity and ideality on one side, absolute normality and objectivity on the other side. The principle of the solution is, though, ultimately this: essence law connections become empirico-psychological as soon as one transfers the universality of essence laws to the empirico-psychological sphere. What is absolutely valid because <belonging> to the ineradicable essence, say, of the judgment, of Evidenz, etc., is valid in every individual case in any empirical sphere, therefore, for the acts of judgment that occur in the human consciousness. And, vice versa, the claim to supra-empirical validity of what is logical, of what is ethical in principle, etc. is elucidated and proves justified by going back to the phenomenological sphere, namely in the proof that logical, ethical law, etc. does not express any empirical generality in the contingent human life of the mind, but that it expresses essence interconnections that can be seen in phenomenological abstraction and intuition as ineradicably belonging to the essence of the corresponding species.

I would like to conclude the general discussion of the idea of a phenomenology with an additional remark about phenomenological methodology. Phenomenology operates entirely in the sphere of intuition, in the sphere of clarity and distinctness, to draw in the terms of old rationalism. It starts with the empirical particulars that in the life of the mind are experienced as self-delimiting individual acts or primary contents of them. Of the existence of these particulars and of their purely descriptive duration, we have, by simply looking at them, Cartesian Evidenz, Evidenz of the *cogitatio*. Therefore, phenomenological investigation takes evident givens as its point of departure. However, it is to be noted that, as already recently mentioned, but perhaps too hastily, the experiences are evident givens, not as experiences of a human individual specified in such and such a way, not as facts of a mental and psycho-physical nature. Rather, they are evident givens as mere This. Empirically apprehended they are problematic, but grasped purely intuitively to the exclusion of all empirico-transcending apperceptions, they are absolutely unproblematic, absolutely indubitable givens. If, for example, phenomenological analysis links up with a judgment that I am just now making, then the Evidenz concerns this *cogitatio*, this experience, not the judgment as my judgment, namely in apprehending that it belongs to me, to this specific person, any more than the Evidenz relates to the

- state of affairs that I judge in it, that I posit as true in it. Of the being of my I, so far as the empirical personality is meant by that, there is no Evidenz, any more than of the being of any other empirical thing. If I apprehend the judgment I am passing as my judgment, then the looking at the as-“my”-apperceiving may bring its Evidenz with it. That is, though, only the Evidenz for the existing of this apperceiving, not though for the existing of the I of the empirical person. If we say, therefore, the experience that is simply looked at and that is laid hold of in pure immanence and adequacy just as it is experienced is an evident given, then even the words “experience” and “immanence” are already laden with redundancy. In being referred to as “experience”, judgment is indeed referred to as something belonging to an empirical I, something judged by an experiencing person and appears mentally determined in relation to this ego. Empirical determination, though, transplants every datum into the system of “nature”, objective-scientific determination into the system of a nature in the strict sense as a theoretical unity of particulars interconnected by laws. *Prior to all determination, though, lies what is scientifically and in general conceptually still indeterminate.* (This is surely what Kant had in mind under the heading “phenomenon”, namely when he said that the undetermined object of an empirical intuition is appearance.) Phenomenology starts with these intuitive givens still lying prior to all determination. It is concerned with them and about them, but not in order to investigate them, in order to determine them scientifically. Were it to do that, then it would land in the natural sciences. For every scientific determination of that indeterminate This-there changes them into determinate facts, and facts belong in the system of nature, of physical or mental nature. Nature is the entire realm of all facts.

- Phenomenology is not, therefore, concerned with the first givens in order to determine them as facts, say, as experiences in the authentic sense, but in order to engage in analysis and generalizing intuition on the basis of these givens. In so doing, it grasps the specific essence and essence connections. It grasps them directly, purely intuitively and generally. It relates to these species, not indirectly, in the manner of symbolic meaning, as when one speaks of the essence of judgments of this or that judgment species without grasping and seeing it itself. Rather, it sees this species in performing specifying abstraction on the basis of those evident givens and so has given and sees the generalities themselves. If several givens are at hand in which the

- universal is isolated in many ways, then, in exchange for the individual data, the universal is seen and grasped as identically the same. It is at the species grasped in this way in general intuition that phenomenological analysis and inquiry are aimed. They aim at the essential
- 5 genera, species, and subspecies of these universal essences, at their possible interconnections, at the species of their elementary forms of complexes, at their compatibility and incompatibility, and so on. The intuition is moreover continuously pure and adequate. Nowhere does generalization reach beyond the actually given content of the pure
- 10 data. Attention is continuously systematically paid to abstract from 379 the empirical apperceptions in which the data are objectively indicated, which are very much more and different than what is present in what was given itself, and not to confuse what is merely apperceptively referred to with what was given.
- 15 What role does the Evidenz of the *cogitatio* that relates to the first undetermined givens then play? We can truly say: The Evidenz lying in the direct seeing of the first givens is in a certain sense a presupposition of phenomenological investigation, although it cannot and should not deliver a single proposition, a single premise for authentically phenomenological findings. Phenomenology is to be a completely independent discipline and the phenomenological method a completely independent method in all critique of reason. That means that it does not wish to presuppose anything open to any doubt on grounds of principle. It is to present the ultimate sources out of which
- 20 all genuine principles can be drawn with absolute certainty, both those objectively valid in the sphere of science and those objectively valid in the sphere of emotional and volitional values. Accordingly, it begins by excluding everything doubtful in the sense of critical skepticism. If it, therefore, goes back to the ultimate givens in order to open up to
- 30 universal essential insights by rising up to the universals to be seen in them, then in linking up with these data, in starting with them, it will assure itself as to whether they retain anything doubtful. Therefore, it will ascertain that they are precisely evident givens, or that, if what was directly given is to count as given, it must precisely be reduced to the
- 35 sphere of pure immanence that is precisely to the circle of authentic, adequate givenness. And, for this narrowing down, in order to obtain universalities on this basis, it needs ones that are also not transcending in any way, but are purely adequate givens. However, it needs to be said that the universalities grasped in the sphere of pure immanence

do not presuppose, say, the existence of particulars, of those givens ensured in Cartesian Evidenz. The adequately seen universal is something fully independent in its own right. It is systematically given on the basis of the particularity experienced. To set aside every doubt as to the worth of the phenomenological procedure, it is good and necessary systematically to say to oneself: The experience that I start with is, if I abstract from the fact that it is my experience as an empirical person, and if in terms of content I understand it in precisely this way, the way it is there, in accordance with what I really find in it, and not in accordance with what, reaching beyond it, I intend in and with it, the experience understood in this way is certainly no cause for possible doubt. And, on the basis of the indubitable given grasped in this Evidenz, I form general intuitions. On the basis of these particulars, analyzing and specifying them in pure immanence, I grasp one specific essence or another. If I proceed thus, however, this systematic procedure no longer has anything doubtful in it and, above all, not in the point of departure that I have adopted. For, the latter is something absolutely given and indubitable.

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APPENDIX XIII (to Chapter 6): <Phenomenology
and Psychology. Phenomenology and Theory of Knowledge.
Phenomenological Description vis-à-vis Empirical Description>¹⁷

In the last lecture, we discussed a series of very difficult concepts:

1. The concept of pure logic as of the science of the ideal constituents and laws of theory in general or, as we can also say, of the science of truth and objectivity in general. To the extent that it is understood as it must be understood, pure logic is identical with the *mathesis universalis*.

2. The theory of knowledge. Clarifying the problems concerning the possibility of knowledge, or elucidating the difficult relationships prevailing between truth and objectivity, on the one hand, and judging, knowing the truth or objectivity, on the other. It is a question, as we also said, of clarifying the ultimate meaning of knowledge

¹⁷From *Urteilstheorie. Vorlesung 1905*, ed. E. Schuhmann (Dordrecht: Kluwer, 2002) (rev. Editor's note).

in general, or of the being in general to be grasped in knowing, and thus of a discipline that make critique of pre-established knowledge and sciences possible, that puts us in a position to ascertain the final significance of the findings of the pre-established sciences. If metaphysics is the science of real existents in the true and ultimate sense, then theory of knowledge is the prerequisite of metaphysics. Theory of knowledge is formal science of being, so far as it disregards being as it shows itself factually in the inquiry into being of the specific sciences and investigates being in general in conformity with its essential meaning. We could directly call the critique of knowledge resting on pure logic *formal metaphysics* (ontology), while, on the basis of this formal metaphysics, metaphysics in the authentic sense establishes what is then factual in the categorial sense, what pertains to real being, not only in general and as such, but *de facto* in terms of the results of the specific sciences of being. With that, the third concept of metaphysics is defined.

4. Phenomenology of knowledge. Here, it is a question of description and analysis of the different genera and species of acts of thinking, of moments and forms of connection of acts of thinking in which logical ideas find their abstractive basis. Phenomenology, we can also say, is the descriptive discipline of the essence of thinking. It is the essence description and essence analysis of experiences of thinking. By comparative examination and analyses, it determines the genera and species of intellectual experiences, the species of their intrinsic moments and their forms of interconnection. It is guided in these analyses by the initially shifting and vague concepts of pure logic, on the one hand, and the psychological concepts of intellectual experiences, on the other. The latter receive their Evidenz, their permanent delimitation by means of phenomenological analysis, therefore, by going back to the given and seen essences of thought acts and species of their moments, and precisely by this means, the sole possible basis is given for solving the problems of theory of knowledge, the problems <lying> in the relationship of knowing and being, of knowing and objective truth.

If we replace pure logic by pure ethics, pure esthetics, pure theory of values in general, disciplines whose concepts, in keeping with the analogy with pure logic, would have to be rigorously defined and differentiated from all empirical, material morality, etc., then corresponding to theory of knowledge or critique of theoretical reason is the critique of

practical, esthetic, valuing reason in general, with problems and difficulties analogous to those of theory of knowledge.

- Added to that are the problems concerning the relationship of being, i.e., being objectively determined in this or that manner, and being of value or not being of value. And, corresponding to these problems to be understood in formal universality, which understand this relationship independently of factual being, of factual reality, are then the metaphysical problems, to the extent that absolute reality is to be understood or not to be understood as something “objectively of value”, to the extent that the value predicates <are> merely subjective and come into consideration relative to the contingent valuing essence or belong immanently to the essence of reality. We have, therefore, a *formal and material metaphysics of values*. And, in the end, corresponding to the pure theory of value and critique of valuing is the phenomenology of ethical, esthetic, and other valuing experiences, the presupposition and the basis for the solving of the problems of critique of valuing. Finally, one can broaden the concept of phenomenology to a comprehensive essence-description and essence-analysis, therefore, to an exhibiting and analytical dissection of all species of experiences, experience-moments and experience-forms, *where the word experiencing is not to express any essential relation to individual, contingent subjects*. Rather, it is to indicate what is given in adequate intuition that is not in any way transcending. It is exactly this, which we are looking at as something given, and taken in the way it itself is, that we dissect and specify and in so doing acquire the basis for the ascertainment of all possible essences and essence laws open to us.

5. We *distinguished descriptive psychology*, and further, obviously, psychology in general, from *phenomenology* and especially phenomenology of knowledge. It is a question hereby of a nuance, of a nuance of fundamental importance. It is obvious that phenomenology does not set out to ascertain natural laws of mental experiences or, let us rather say, of the experiences of experiencing subjects, personalities, human beings, animals, etc., no more does it ascertain the empirical generalities of invariability that do not have any exact nature in terms of natural laws, nor does it want to explain individually ascertained events of inner life by going back to natural laws or empirically universal rules after the manner of a natural science. All that is the subject matter of psychology, of psychology in the

ordinary sense, of the natural science of inner life. What is, though, of importance for us is the fact that, along with all other empirical apperceptions, phenomenology also excludes those by which what has been found by pure perception, adequate perception, becomes
 5 inner experiences, inner experiences of myself, of any other person, experiences of any empirical subjects and consciousnesses. If phenomenologists describe the essence of sense contents, if they separate their essentially different genera and species, like color, sound, etc., if describing the sound-fields leads them to the qualitative ordering
 10 in a sequence belonging to the essence of sounds, to the inseparable association of the genera sound and sound intensity, color and brightness, and so on, or if in the sphere of intentional experiences, they separate the genus of the objectifying act from the genus emotional act, etc., *then all that comes into consideration in psychology and is*
 15 *yet not yet psychology.*

That color, sound, and so on, are classes of content that occur "in" the "souls", or whatever one wants to call them, of humans or other empirical subjects, scilicet, as presenting or representing contents of "acts" belonging to me or to another "soul", etc., that they fall into line as temporal particulars, as facts of nature, in an objective temporal ordering, in a concrete empirical natural ordering is a matter for psychology. *That falls entirely outside the sphere of phenomenology.* It does not speak of the sound that I or anyone else experiences, but, even if a sound-experience underlies the analysis and, thereby, is an experience of phenomenological researchers, they do not refer to this experience as such, but
 25 they only look at it in order to see and objectively ascertain the species red and the characteristics belonging to the essence of red or of color in general. What is phenomenologically ascertained concerns redness in general, color in general, extension in general, presentation in general, judgment in general, etc. And, that is valid in the sense intended. It is, therefore, valid in transference to any not empirically actual, but *possible consciousness*. Wherever something like color, sound, presentation, judgment occurs, what is essential to sound in general, to color in general, etc. must be there to be found. What pertains to the content as content
 30 of this and that species, what pertains to it by itself, through its own general characteristics, by which it is what it is, *concerns precisely the content as exemplary of its species and not as a contingent component of its empirical system.* Of course, that is itself again something else that
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the phenomenological analysis must first make clear: How determinations of relationship and connections are grounded in the essence and are generally circumscribed by the essences, consequently, as necessary universalities and how, on the other hand, the essences leave connections open as mere possibilities—that is then the sphere of the empirical? Connections are found in fact that are not necessarily required in the essence of the contents.

Only through knowledge of the nature of the essences and essential characteristics, essential connections, of essence laws, as distinguished from the extra-essential connections that are subject to empirical rules, did differentiating between phenomenology and psychology become possible and, in the same way, the difference become clear between the kind of going back to experiences that theory of knowledge requires and that which it debar, therefore, that which the theory of knowledge would make dependent on psychology, a natural science.

Physical natural science presupposes physical objectifying. It deals with physical objects, physical processes, and physical laws. Each has its place in space and its place in time here, i.e., in objective space and in objective time, and these objective forms are the forms of all physical connections and embrace all of physical nature.

Natural science of the mind presupposes mental objectifying. It deals with mental objects. People want to prohibit the word *soul* so as to eliminate the mystical spiritual substance. A word expressing objective unity, the unity of the individual experiencing the experiences of consciousness and uniting them into a concrete thing-like unity (naturally not thing-unity in the ordinary sense), one will not be able to avoid. And, with its individual bearer, into whom it fits itself, every mental process receives its objective place in time and, indirectly, its place in space. It is something definite in actual reality. Phenomenology eliminates all this objectifying. In analyzing, it likes to say “this there”, but the objective temporal determination, the fitting into a real natural context, the natural scientific objectifying is omitted. *No fact of nature is ascertained, but rather the essence of a species*, or of a specific law, of an essence law.

On the other hand, phenomenology and psychology are not unconnected. And, one can also designate the former as a basis of the latter. If we assign to psychology the task of understanding the nature of souls (excuse this troublesome word), of ascertaining the peculi-

- arities, the kinds, the forms of connections of spiritual experiences, the laws in keeping with which the inner contents join into units and change the units, then the first and fundamental thing is to become clear about the fact *that every content is in itself what it is because it falls under certain essential genera and species*. Corresponding to them are the universal words by which we mentally define and designate the contents. Therefore, it is above all a matter of the essential genera and species and of the laws belonging to these essences and implying essential possibilities and impossibilities of association.
- 10 The science of essences and knowledge, the fact that in all so-called *a priori* laws, among them also the logical, ethical, etc. (so far as they are in fact *a priori* in the genuine sense), essence laws are clearly marked makes possible in general only a psychology in the full sense, a full, complete understanding of spiritual unities. But, this essence theory receives 384
- 15 a certain twist here. *Psychologists turn it into something subjective. They are not interested in the essence in itself, but in the class concepts of mental experiences*, i.e., of experiences of an individual consciousness. And, they are interested in these experiences, not only with respect to their universal essences and with respect to the legitimate connections
- 20 prescribed by the essences, but they are interested in the spiritual facts, in the nature of the soul, in the inductive laws and rules only obtainable inductively that govern the extra-essential connections and processes of the spiritual particulars and concrete units. *The psychologico-objectifying inclination transforms phenomenology into descriptive psychology*.
- 25 All phenomenological findings enter into descriptive psychology with just a nuance, as it were, with a change in signature. But, phenomenology can and should be considered *pure essence theory*. *In terms of conception, it is neither psychology, nor descriptive*. And, those who have not comprehended this difference at the beginning will never understand
- 30 the essence of an objective theory of knowledge either.

- Let us take another brief look at the relationship between phenomenology and theory of knowledge. Here too, it is useful to have possible segregation in view. Phenomenology can be dealt with without any regard for epistemological problems. It is then pure essence theory, science of genera and species, i.e., essential genera and species of contents (science of species and not of contingent class formations like, for example, Göttingen student). By ascertaining laws grounded in the specific essences, phenomenology automatically enters into a relationship with

- the purely logical laws and laws of value, inasmuch as the latter truly present laws of essence belonging to certain cognitive acts and acts of valuation. The misinterpretation that these laws have suffered and the accompanying confusion into which the questions about the relationship between cognitive act and cognitive unity put us will automatically lead phenomenologists over into theory of knowledge, induce them to shed light on the difficulties and pseudo-problems dealt with under the heading "theory of knowledge". But, it need not do this in and of itself. On the other hand, a theory of knowledge without phenomenology is, though, inconceivable. Starting with false interpretations of what is logical, one can indeed by superficial logical reflection detect the contradictions or absurdities they bring with them, and consequently in such a manner declare the inadmissibility of the interpretations. But, one will not arrive at the ultimate meaning of knowledge by that and by any similar transcending systematic procedure. To understand knowledge, one must just go back to actuality, to the clarity and distinctness that the intuition of the intended species itself and laws of essence themselves offer. That is obvious and requires no further discussion. Critical reflection without recourse to phenomenology is necessary and useful, but it is merely a preparation for the true feat, for phenomenological elucidation. Phenomenology, therefore, acquires an epistemological function here, although it is not itself in its essence critique of knowledge. Whether phenomenology as a special discipline is to be built up completely separately from theory of knowledge is a purely practical question.
- A reservation that I am not entering into further here is the question of the consistency of phenomenology. Can one call it a science, since it breaks down into unconnected fields: sensory essence, categorial essence, etc. (essence of what is mental in the authentic sense, etc.). I am wont to say in this regard: Phenomenology designates more a method, a manner of investigating after the fashion of elucidation, evidencing, than a consistent science.

- As is the case with all these distinctions, I only consider it important here for people to see the essential lines of demarcation, to have a keen understanding of the idea of phenomenology, the idea of theory of knowledge, the idea of psychology, so as not to be pushed in the wrong epistemological directions by confusing the disciplines or their viewpoints and relations of dependency. If one lacks one of these nuances, then one irretrievably lapses into either absurd empiricism or mystical *a priorism*. Precisely because it lacked these distinctions,

the entire development of theory of knowledge has been subject to the sharp opposition between sensualism and rationalism. In both factions, we find the same error, that of psychologism. Both confuse the genuine problem of origins, that of the phenomenological elucidation of knowledge, which they are not in a position to define precisely, with the false, psychological, problem of origins. Time and again, and in all quarters, people believe they can understand knowledge by inquiring into the psycho-genetic origin of knowledge.

Addendum (marginal note to a later page)¹⁸ about description and phenomenological analysis.

Empirical and natural scientific description is description of existing individual things and processes, and the like. This description is the basis for the quest for empirically phenomenal-general propositions and natural laws. So in morphology, so in physical and psychological natural science. In phenomenology, it at first seems that we also have experiences in hand, that is processes in individuals with minds. In a certain way, we do have such things in hand. If I “describe” perception phenomenologically, I indeed have a perception (my mental experience) before me. But, yet again not. Objectively, it is indeed true that these are mental phenomena, but in phenomenology they are not referred to as mental phenomena. In them, mental phenomena are not perceived, analyzed, compared with others, general psychological concepts, morphological and natural scientific propositions, natural laws formed. Given to me are the ultimate “particulars” making up the substrate of phenomenological analyses, descriptions, ideations with the status of modified Cartesian Evidenz as “this”, and “this-there” is not a temporally individual this-there, but already means an ideation, namely, the lowest level of ideation. 386

If in theory of abstraction, one says that every abstraction is necessarily based on an individual phenomenon, then that is not true in the authentic sense. One can say, each authentically (intuitively) performed generalization is based on a particular, empirical generalization on an empirical particular (therefore, something temporally individual), whereas, essence-formation, ideating generalization is based on a phenomenological individual, and that is not something individual in the psychological sense. Naturally, it is always possible

¹⁸To which marginal note and which page Husserl is referring could not be ascertained (Editor's note).

to perform an individualization, an apprehending of what is phenomenologically given in something psychological, something belonging to any empirical I, but this psychological apperception and positing is precisely just a possibility and does not come into consideration in phenomenology. If I look at “this”, this perception, this judgment, etc., then I am purely concerned with this as what it is purely immanently in itself, and belonging to it in terms of immanent content is nothing of space, time, individual consciousness. Therefore, it is already a universal,¹⁹ a universal of least differing. It is what it is independently of whether it belongs to this or that or to “a” “consciousness in general” (consciousness as soul, or the like). Of course, it is not something obtained by generalization. But, ideation is not universalization either. We must keep idea and universal (genus in the original sense) separate. Red is not the same as red in general (belonging to the general judgment), like color in general (in contrast to “the color”), the “universal content” (or object), better the essence red, the essence perception, etc. “This”-there is an essence too, only a concrete essence, an essence of least essence-individualization.

Yet, I am going too far here. If I see this red and this red, “the same” in both cases, or this perception and that perception, must I not there still speak within phenomenology of additional isolated things that are still not yet individually psychologically determined? Or, must I not say that as red they may be completely alike, but in *haeceitas* they differ in phenomenological “time”, in phenomenological position in consciousness, which are again ultimately essence-differences of their own kind and not true empirical individualities, not individualities in the “real” sense. Each individual has its essence, its individual essence that is the least difference, the absolute concretum, as I have called it. That is still not an individual. It is still multipliable. What individualizes is not a difference, not a “quality”, not a content-moment of the “object”. It is the *haeceitas*, but this, it seems, coincides with the nature of the perception (impression and positing as itself, adequately referred to as experienced). And, this nature is not something separable, but content and nature are inseparably one. But, that is still imperfect. For, does the perception coincide with the object “this there”?

¹⁹That is not right! Of course, if I disregard the *haeceitas* and just refer to an idea of this perception, its essence!

*APPENDIX XIV (to §37b): <On Phenomenology's Method
and the Meaning of Its Scientific Intentions>²⁰*

5 In the midst of actual phenomenological work, it is by all means necessary for me to seek constantly to make the meaning of its intention and its method clear to myself through reflection. For, one readily subsequently speaks about the meaning of the work and accomplishments realized at the moment from on high on the basis of vague general reflection, imperfect memory, and token deliberation, instead of from the bottom up and from inside out.

10 It is a science of “phenomena”, of experiences. Within “phenomenological reduction”? Am I not accepting experiences as “existing”, objectified (not realized), that are not given in seeing? Am I not, though, also positing a interconnection “of individually isolated” experiences combining into the unity of the (existing, not “real”) “stream of consciousness”? Am I not also stating propositions that state something about such a stream of consciousness? Well, yes, in phenomenological perception and memory I grasp a flow, in phenomenological reflection and memory I analyze a “background” and I find this and that “objectified” in it. Belonging to the essence of contents of this flow is the pre-empirical temporal extension and the infinity of the extension, namely in terms of “past” and “future”. Therefore, even in the phenomenological sphere, I make “statements of matters of fact” and statements of essence relating to them. I do not merely put forward types of knowledge in essence-grasping, fix and differentiate them, and investigate
25 their possible forms of unity, their teleological forms of fulfilment, etc., but I find and state that, a flow “of knowledge” and a flow of experiences in general and in them the pre-empirical units (substances, etc.), a pre-empirical reification and temporal positing, accordingly simultaneity, lack of simultaneity, qualitative equality and inequality, etc. in a concrete sense. And, I state that belonging to the essence of these “realities” (unrealities of existences) is that they are constituted in a flow of this kind and belonging to the essence of “what is found” in the flow is that necessarily flows, etc.

35 I cannot “determine”, namely, univocally conceptually fix, the individual, but I can nonetheless surely grasp it conceptually, bring it

²⁰ December 1906.

under concepts, and looking at it, affirm something. And, above all, in indeterminate and nevertheless valuable ways, I can say that it is a complex of particulars of such a kind, characterizable in such and such a way. As I see them at the same time here, I can consider this complex in terms of its essence and at the same time affirm existence. And, going beyond the seeing, can I not also say: The seeing “of the moment” has its background too and the flow spreads out while reflectively I grasp only a small part? 388

- 5 It follows from all that that I have not yet correctly determined the meaning of phenomenology. It is an absolute analysis of being that also establishes absolute being and establishes as necessary being, that “constitutes” in itself and bears every being of a different kind, every “transcendent Being”.

15 *APPENDIX XV (Variation of 47b): <Higher-Level Generalities. The Universal as Object and as Property>*²¹

- In the last lecture, we described the consciousness of the ideating abstraction in which the universal essence, the species, is constituted as higher-level object. However, in so doing, we at first only had in view the simplest case in which, as first level of a thinking consciousness, the consciousness of universality, the species-consciousness, is directly based on simple intuition. An ideating consciousness can, though, also be based on a consciousness already bringing a species to intuition. In the universal that is given, a higher-level universal can be given and seen. Carmine red is a universal, a species, vis-à-vis the individually particular moment in the intuition of an individual object. Red as species is a universal vis-à-vis this shade of red. It is the common factor that unifies it and other shades of redness, which all together are already universalities. Color is the universal of red and blue, etc., quality the universal vis-à-vis color, sound, flavor, and so on. That gives, therefore, universalities in ever new levels. *The authentic performing of abstraction*, the one showing us the universal essence as idea seen, *obviously presupposes this graduated structure*. In order to see the essence of “color”, colors must lie before

²¹ From the lecture course of WS 1906/07 (Editor’s note).

our eyes in sensory intuition, but the simple consciousness of red is not enough for the authentic color consciousness that first fully and authentically comes to the fore in the second level when red is placed with a white or blue in a unit. And so it is everywhere.

- 5 The universal always lies in a certain way in the particular, analogously to the part relation. The genus is truly something common in the species, the species something common in the subspecies, the lowest species something common in the corresponding individuals and individual moments. However, “color” is not a part of red in
 10 the sense of something in a whole that can be taken out that would have other additional parts alongside it with which it would be combined. Red is not an amount of “color” and something else. Red is a particular instance of color, and if we ask which particular one, we
 15 can only just say: red. Figuratively, we say with respect to that that precisely identification takes place on the basis of particularizations. Red and blue and yellow have the universal color in them. They have a common “moment”, as it were, a part. But, this involvement is not one of taking out of a whole, of an interrelating, intermingling, or interfusing of moments, a part that then stands in contrast to the
 20 additional moments as something combined with them.

- And, it is all the more inappropriate to understand the genus as a part of the species and the latter as a combination of species and something else. The absurdity of comprehending this inclusion of the genus in the species, of the universal in the special case, and
 25 finally the particular as being a part, follows from the fact that only what is individual can be part of what is individual, and likewise, only what is universal on a certain level part of what is universal on the same level. Especially for the relationship of species and individual particular is it to be kept in mind that the *universale* is not
 30 in re, provided that the *in* is taken in the authentic sense (likewise, reversed *ante* <and> *post* <rem>). Plato spoke of the relationship of the μέθεξις, κοινωνία. That clearly points up the difference vis-à-vis the relationship between whole and part. The relationship between the least difference and the individual particular is,
 35 though, unmistakably essentially different from that between genus and differentia. With that, the differences between genus, species, and least difference are, therefore, also clarified, in which the least difference is the first universal, the lowest, genus and species the

terms for higher universalities that always only have universalities under them.

- An important difference is present between the genuine Aristotelian genera and species and those that are not genuine. The dependent moments that can be separated in the concretum ground ideations individually and in their intermingling. If we take out a simple moment, like the red moment or the form moment, then in ideating we rise up to Aristotelian species and genera. In a clear course of simple ideation, each term is a simple one. Quality color, red, each is simple. And, everything more universal clearly lies in the special case. If we take a horse, though, then the universal horse is a complex of universal moments, each of which is then differentiable and specifiable in its own right, and accordingly makes different ways of differentiating the whole possible.

- The universal in the sense of species is a new objectivity, an object.
- 15 In the relationship to the particular that is subject to it, it receives the character of the qualification, of the property. The consciousness in which the qualification is constituted is not without further ado of the same kind as the consciousness of the universal as what is specific. If we say, this is white, then implicitly expressed is the relationship of the species white to the object that has whiteness or is white. It would be false just to say that the white moment pertaining to the object would come to the fore and be placed in partial identification with the object. The word white has a universal meaning. If we say this is white, and in seeing we realize the meaning of this talk, then the white is not simply taken to be identical for its own sake, as object, 390 but in the relating (predicating) consciousness (namely, that in which the property constitutes the predicate white), the universal “white” coincides with the coloration-moment, and by means of this coinciding is related to the object, determining it by this means. The thing is white. It has whiteness. Having is here naturally not to be understood in the sense of authentic having that designates a real (*reeles*) part-relationship, but in the relationship of the particular and universal becoming clear through that coinciding and in which the particular as particular of the universal and the universal as the particular figure as qualifiers. If we say: x is white, then this relationship is apprehended from the standpoint of the particular. And, that belongs to the essence of the qualification. x figures as the subject of the qualification. The “is white” expresses the distinctive predicative identification that in

the adjectival form indicates the uniting of the universal with the dependent moment of the *x*. Of course, linguistic functions still come into play here, the intentions that as meaning intentions of words intermingle with what has been realized intuitively. We still have to
 5 leave this out of consideration up to this point.

Still, it already emerges from our earlier expositions *that we are operating along the lines of the so-called theory of judgment*, in which a phenomenological elucidation of predication, therefore, in the first place and at the lowest level, a kind of identifying, relating, determining thinking is
 10 aimed at. We see how ever new categorial objectifications are based on simple intuitions, objectifications that intermingle with one another and in their intermingling present additional new objectifications, therefore, do not simply conglomerate. Identification, or differentiation, intermingles with abstraction. The mistakenly “relating” thinking arises that not
 15 merely relates the part or the moment to the whole, but then relates the qualifying property to the subject qualified.

*APPENDIX XVI (to §50a): <The Objectivity of Knowledge.
 The Ideally Legitimated Fulfilment-Relationships>*²²

Discussed in the last lecture was: If the problem of objectivity is
 20 solved for any type of thought-acts, and of categorial thought-acts especially, the form of the solution at the same time gives the key to the solution for every other type of thinking.

What does the *problem of the objectivity of knowledge* signify? What does this talk of objectivity signify to begin with? Going into the
 25 question in more detail: How is it that our thinking aims at an object, that as correct thinking, it belongs to the object, suits the object? How is it that correct thought operations, however entwined they may be with the states of affairs to which they relate, necessarily have to meet
 391 together, and what makes knowledge possible in which precisely it is
 30 “known” *that what was thought in such and such a way truly is?*

The talk of thought- and cognitive-object, of truth as agreement between subjective thinking and objective being requires, I say, that

²²From *Allgemeine Erkenntnistheorie, Vorlesung 1902/03* (Dordrecht: Kluwer, 2001) (Editor’s note).

- qualifying dwell in subjective thinking, whereby it is more than any merely subjective experiencing—qualifying that carries with it the fact that all thinking in general determined in this way, because of this determination, relates to the same object and that in this way it
- 5 partakes in the same truth. Necessarily belonging to the so-called thought-object itself is agreement of the thinking determined in this way. The object itself is the binding unity between this subjective thinking and any other random subjective thinking, between the contingent thinking of this moment and that of any random moment,
- 10 between the thinking of this contingent consciousness and that of any other actual, or in general possible, consciousness.

- At first, the object is, though, generally speaking, not something really (*reell*) dwelling in the thinking. It does not belong to the essence of thinking and to its relation to the object to grasp the object as a
- 15 real part in itself, as if the necessary agreement of any correct thinking with the object consisted in the fact that all correct thought-acts relating to the object contained the object as identical part. Thinking can contain the object itself in itself, but generally speaking it does not do that, and yet the objectivity of thinking consists in necessary
- 20 agreement of correct thinking with the object. How is it therefore possible and how is it explained?

- Well, on the one hand, by the *contrast between inadequate thinking, which is merely having in mind, and adequate thinking as seeing the self-given object*. On the other hand, by the *ideality* of the relationship
- 25 of thinking to the object, i.e., by the ideal possibility of the agreement of inadequate, but correct thinking with possibly adequate thinking. Belonging to the universal essence of the intention of correct thinking is that it can be fulfilled. *The necessary agreement of all thinking objectively directed at one and the same thing in general consists in*
- 30 *the fact that dwelling in any such thinking is a content, a meaning in which, in conformity with its specific character, the possibility of a synthesis of identifying is grounded and the possibility of fulfilling such thinking with adequate perception is eo ipso the possibility of any such thinking in general*. Precisely because the possibility of adequacy
- 35 is purely grounded in the specific content or meaning of thinking, it is the same wherever thinking having the same content may at any time be present, no matter when, in which consciousness-context, for which actual or fictional thinking being, we may imagine this thinking.

The opposite of fulfilment is conflict and the ideal relations corresponding to it and belonging to its relationship to the possibility of fulfilment. For example, the possibility of fulfilment excludes the possibility of conflict; the impossibility of conflict includes the possibility of fulfilling, etc. In short, belonging to these ideal possibilities and impossibilities are laws, purely logical laws, like the law of contradiction, of double negation, etc. They are laws that belong to the specific meaning or essence of thinking and that consequently legitimately define the universal meaning of the objectivity of thinking. By having elucidated them phenomenologically, we have in so doing *eo ipso* shed light on the universal meaning of objectivity or ideality of thinking. 392

We understand the necessary relationship of thinking to the object because, by means of phenomenological and abstractive analysis, we have obtained the distinctions between intention and fulfilment or disappointment, the distinctions between immanent meaning of presentation and that of the object referred to by it, and so on and so forth, have recognized the ideal laws belonging to what is specific to these distinctions precisely as laws of such immanent moments of acts and relationships of acts. And, precisely with that, all doubts are cleared away that would limit the objective validity of thinking to the contingency of human nature.

The laws of thought about which we have just spoken belong to the more broadly comprehensive sphere of the laws grounding in possible pure “forms” of thinking: clear laws whose truth we fully and completely penetrate. The general states of affairs, which state ideal connections between the moments realizing themselves in possible thought acts, are given to us in the strictest sense. Then, it holds of all so-called thought forms and the units formed by them that they are only constituted in categorial acts: identity only in identifying, difference only in differentiating, collection only in collecting, etc.

The entire objectivity of what is purely logical or purely mathematical then consists in the fact that categorial acts can, so to speak, be performed in a dual form, in authentic, adequate form, in inauthentic, inadequate form, and that correspondingly this contrast and the ideal laws for possible fulfilment and disappointment belonging to it make categorial objectivity possible in the same sense as simple real objectivity. Here, we learn to understand how, in general, objects not having

- the character of givens of possible sense perception are possible. We learn to understand how acts of a completely different kind than sense perceptions can give us an object itself, and how acts of a completely different kind than inadequate sense intuitions or sense signs are can
- 5 make objects indirectly presentational to us. A relation, a difference, a plurality, a number, a necessity, a possibility, a conflict, etc. are objects that cannot be given in any sensation, and yet they are objects. They are so, because of the ideal legitimate relationships that belong to the categorial acts concerned. They are so, because by their nature these
- 10 acts are subject to the opposition between referring and fulfilment of referring and to that then belong all the laws required by this contrast in the most universal universality.

- And precisely by that, we come to comprehend how matters must stand in the sphere of the empirical sciences if it is true that the think-
- 15 ing of the empirical sciences is also thinking that brings us to knowledge of an objectivity in the unity of experience. If all the acts and act-forms we have become acquainted with up until now cannot suffice to make empirical science comprehensible, then yet more acts must simply be producible that also, even if perhaps in another way,
- 20 constitute objectivity, and that means that that contrast between presumably and actually, between inadequate and adequate, must also obtain for these acts, and that belonging to the meaning of these acts must be a system of laws that gives necessary unity, unity in the object, to all possible acts having this meaning or content.
- 25 That here it must be a question of a sphere of new acts is clear. All of nature, the sphere of thingness, the sphere of the existence of things, of thing connections, of thing processes, of thing laws, of "laws of nature", is not given to us by acts of the kind we have become acquainted with up until now. Of course, naturally, we have presentations, even intuitions of things,
- 30 but never and nowhere do we have adequate intuition of that. Hence, none of our presentations relating to the natural domain can be seen, nor, as a further consequence, can any natural law be seen in terms of its objective validity. Here, therefore, measuring up to adequate perception cannot be a cognitive principle. Ideally speaking, what the law of contradiction states
- 35 is of course valid: Every statement, therefore, also every statement relating to things, is necessarily true or false, every real thing, therefore, also every thing, exists or does not exist. Therefore, one of the two: Adequate perception is possible, or is excluded. But, with that, we do not have anything that

could be of use to us, since the case of adequate perception really never occurs in actual fact.²³ We, therefore, do not have a principle for deciding whether an assertion about a thing is true or whether it is false. There is, therefore, no principle for deciding other than measuring up to the perception and for that, if really necessary, purely logico-mathematical deduction. Then there is no question of a justification of natural science. Therefore, we would then in general not have any right to accord the natural sciences any special right regarding any interventions with regard to nature. Or, what then signifies: We would in general not have the least right to speak of nature, indeed, even just to speak of any random thing, and to accept it as something objectively existing.

Now let us, though, make it quite clear to ourselves that we do not actually have that absolute justification that only evident givenness in adequate perception confers and that we know quite well that we do not have it, while this does not cancel out the objectivity of our assumptions about nature in our eyes. No empirical assertion, I mean by that no assertion about thingness, is to be justified as a sound assertion of what it signifies. Therefore, its justifiable meaning cannot lie in what it merely signifies. And, it is not implied in it either. It lies rather in the *assertion of probability*. In the strict sense, I cannot know that the sun will rise tomorrow. I could only know that if I could actually see the rising, and that is really out of the question. And yet, I am convinced that the sun will rise. This conviction is, though, only justified as one not meaning to exclude the possibility of the contrary, therefore, in other words, as a presumption, <not> as a considering-as-certain-and-true, but as a considering-as-probable.

*APPENDIX XVII (to §51d): <On the Theory of Probabilities>*²⁴

Can one call the thesis implied in simple perception a probability thesis (presumption thesis)? Can one say of this that it is improbable that these things perceived round about me here, this table, this paper, do not exist? In the context of prior experience, in the continuity of perception, everything speaks in favor of it and nothing against it. On

²³ In actual fact? Essentially!

²⁴ Perhaps 1910 (Editor's note).

the opposite side, though, figuring here is the reasoned possibility of an empirical course justifying abandoning the positive positing of these things there. Hume is, therefore, right when he finds it wrong to speak of probability in the circle of uninterrupted experience. It is a certainty, but of course of the kind bringing real counter-possibilities of the kind having nothing speaking in their favor, but yet not empty possibilities in the sense of free fantasy.

- This certainty is distinct from the certainty of *a priori* Evidenz. However, completely good reasons may indeed speak in favor of certainty in the sense of firm conviction that remains firm, even when on behalf of grounds for not-being. Conviction is the “position-taking” belief proceeding from the I. To be examined here is the strange discrepancy between noematic certainty, probability, etc., and the position-taking of conviction, of decision, of accepting certainty, <of> grasping being, of accepting overwhelming probability (presumption). However, planting-oneself-in-firm-conviction-in-the-terrain-of-one-side, taking-a-position-with-certainty for something merely overwhelmingly presumable—that is something odd. Here, let us recall Descartes’ subsumption of conviction (“judgment”) under the Will!

APPENDIX XVIII (to §51d): <Memory’s Attainment of Fulfilment>²⁵

- It is in any rate certain that we are going beyond the sphere of direct memory, that we have *intuitions* concerning the distant past, that we consider what is past as truly having been, that we continually pass judgment concerning it, and allow ourselves to be guided practically by these judgments. We know full well that memory often misleads us. And yet, those who wanted to distrust memory altogether have seemed foolish, truly crazy, to us. We cannot measure these judgments of memory up to adequate perception. The perception of what was as such is, if we make an exception of the indirect temporal field mentioned before, obviously impossible. It is, therefore, certain that no such temporal judgment is justifiable as an absolute certitude, that

²⁵From *Allgemeine Erkenntnistheorie, Vorlesung 1902/03* (Dordrecht: Kluwer, 2001) (Editor’s note).

when it in general is justifiable, it is so only as a probability judgment. Now, let us all make a distinction between wavering, unclear memories and unshakeable, clear memories. The clearer the memory is, the more “value” it has. This is an accepted phenomenological distinction. One can simply not doubt it. Unclear, wavering memory—unclear memory <is> ultimately an empty intention—occasionally flows over into clear memory. What have we experienced here? Obviously, the consciousness of fulfilment, of corroboration, of confirmation. And this increasingly in proportion to the greatness of the memory’s vividness or clarity.

To this corresponds our valuation of statements on the basis of memory. If we make a statement about past facts, then this statement seems justifiable if a memory is possible that calls to mind for us what the statement sets forth as having been. But, the ideal possibility of the memory does not justify the judgment’s intention in the sense the possibility of an adequate perception does, for memory does not exclude the fact that, for all that, what we remember there has not been. Memory merely gives statements weight of experience. Despite the possibility of the not-having-been of what was asserted, the statement differs in an evident way from a randomly invented assertion. It precisely has weight of experience or “basis in experience”. And, the more vivid the memory is, the more basis it has.

Now, the experience that we call weight here is an example of insightful presumption. Every memory in general has the property of making a presumption referring to what was remembered into a justified presumption. A presumption directly based upon memory is experience of this justification, experience of objective probability, of actual weight of experience, and it is at the same time evident that this objective weight admits of gradual differences. The weight of experience can be negligible, it can be more considerable, and very considerable. And, parallel to this, we also speak of the value of experience or probability for assumptions or contents of judgments that are not directly related to memory, but are only symbolically related to it. It is indeed evident: If I have a clear memory—a memory that is all the clearer the fewer the number of elements having the quality of free imaginative contents we find in the whole—and at the same time express in a statement in one categorical form or another what is given in this memory, then every random statement having the same content is justified no matter who may have made

it. And, its being justified means precisely that it tallies with what was remembered. The ideal possibility of fulfilment by a memory makes up the justification, and the justification is that of the *ideal possibility of an insightful presumption*.

- 5 Likewise, one could point to the following. The more comprehensive the memory context into which I can fit this memory, the more weight the memory carries. Occasionally, a memory occurs to us, but figures in isolation, an isolated intuitive image with the quality of something past and as something believed in the past. Occasionally, 396
10 though, the intuition unfolds on one or both sides. Memory continuously attaches to memory and the corresponding state of affairs fits itself in with the actual unity of our experience.

- It is evident that the weight a memory carries is greater when the memory fits into a memory context and we can even follow the context up to what is now experienced. In this way, the force of experience increases all the more. The individual memory refers further on to ever newer things, and if they really occur, then the reasons for believing are naturally more forceful. There we, therefore, already have a way in which empirical judgments can be reasonable, and yet 15
20 not reasonable as certain, but only as probable judgments.²⁶ However, with this it is a question merely of single experiences.

²⁶How is this, though? Are the memories themselves the seeing of “probabilities”, really probabilities of pastness? Something is not right there. What is seen are perceptions. Are memories regarding some x adequate perceptions? In naive memory, I have “perception”, just as in naive perception of the present. But, this belief is not an adequate one. It carries weight. That means it is reduced to an assumption that is asserted in a way carrying some weight and the weight it carries is seen. The assumption is the basis of a presumption.

*APPENDIX I: <Theory of Knowledge as an Absolute Theory
of the Essence of Knowledge>¹*

- The sphinx of knowledge. The perplexity in which the human mind*
5 *lands through reflection on the possibility of knowledge, plunges it*
into skepticism, or plants the inclination toward skepticism. Knowledge
becomes something mysterious and ultimately something completely
impossible. Therefore, people deny the possibility of knowledge.
Now, one can easily show the absurdity of unconditional skepticism.
10 It is self-contradictory. Naturally “in knowledge”.
- Skepticism as earnest skepticism is, though, not extreme, but limited.
It is directed at the possibility of specific kinds of knowledge,
especially knowledge of the natural sciences. One can also demon-
strate here the errors of particular argumentations or the absurdity that
15 all genuine skepticism incurs, especially the empirical skepticism of a
Hume, and so on. *However, “refutations” of skepticism, showing the*
contradictions hiding in the theories (insofar as explicit in the thesis
that is contested, what the theory in question presupposes as theory
of its type and presupposes in accordance with its meaning), showing
20 particular flaws, errors, confusions, and so on, *are not enough*. They
indeed have their good points, insofar as they, for example, attract
attention to certain *a priori* conditions of knowledge (or, conditions
of possible truth, possible theory, and possible science) as conditions
of their “meaningful” possibilities. But, needed obviously is *a positive*
25 *theory of knowledge and theory of science. To what extent does the*
latter have to take skepticism into consideration and is it hindered by
it? The possibility of knowledge is its problem. Skeptics say there is no
knowledge. Are we ourselves so bewildered by the unclarity surround-
ing the essence of knowledge (or, should we suppose that we are) that
30 we grow doubtful about the possibility of knowledge, say, even entirely
lean toward skepticism, toward the denial of knowledge, or even decide
to that effect that there may not be any knowledge? Are we looking for
the *medicina mentis* that could cure us of this illness?

¹ September 1907.

Why should that not be possible? I can begin thus. I am mistaken, 398
 am inclined to consider all knowledge impossible. If I reflect on one
 thing or another, then I arrive at the conclusion that there is and can
 be no knowledge whatever. Indeed, therefore, there is none. This is
 5 how I judge now. But, can I remain with that? That is a contradiction.
 And, even this train of thought requires knowledge, and it is unclear
 to me how it is to achieve what it achieves. And, it really sets out
 from points of departure. I see that to me this seemed indubitable. I
 see that there is knowledge that I cannot doubt, that is presupposed
 10 in my skeptical reflections, indeed in reflecting, in doubting as such:
 the Evidenz of the *cogitatio*.

The transcendence of knowledge is what perplexes me. Therefore,
 in the first place, knowledge of the natural sciences, then psychological
 knowledge as well, finally mathematics as tool, logic as judge. The
 15 possibility of norms, finally phenomenology and the possibility of
 phenomenology. On the other hand, what is immanence and “tran-
 scendence”? What is not problematical for me, what presuppositions
 have I tacitly made, what mistakes, etc.

It is, however, better to say: the reflection about knowledge and
 20 its relation to what is known brings confusions, unclarity, inclination
 to skepticism. *It is not skepticism that is being targeted* in order to
 cure me or others of it, but knowledge is. I am making the *essence*
of knowledge into a problem. The “possibility” of knowledge, the
 “meaning” of knowledge. What does that mean? I am not disavowing
 25 the natural sciences, I am not disavowing mathematics, I am not dis-
 avowing logic, but *I do not understand how they are possible*. Nor, am
 I disavowing perception, experience, and the particular achievements
 of thinking. I just do not understand how they are possible.

For me and for thinking people, natural science is a system of
 30 affirmations whose cognitive value I acknowledge. I judge and
 see that this holds and then something further holds, etc. And, so
 with every science. How can knowledge, though, the particular act,
 the particular series of acts “reach beyond” and grasp, posit, know
 something that is valid independently of the individual act. What is
 35 that? How is it to be understood? Therefore, for example, I do not
 disavow natural science. It is truly valid for me. And, so is psychology,
 mathematics, logic. But, the essence, the meaning *of this validity is*
now in question.

The inquiry is directed toward the relationship between natural scientific knowing (perception, remembering, conceptual thinking, judging, inferring, inducing, etc.) and natural science itself and nature itself. It is a system of propositions that are “valid”, and nature itself is that to which these propositions or acts of natural sciences “refer”. I do not want just to prove the validity of natural science, of any propositions, proofs, theories occurring in it and, thus, of all of it in its entirety, as if I could meddle in the affairs of natural scientists and possibly teach them something better. It may be that I can do this, but then I am myself a natural scientist. It may be that natural science is still an imperfect science. But, supposing it to be absolutely perfect, the problems we are now dealing with remain the same. We have by all means reason enough to presuppose that natural science is on the right path and that by <and> large its theories are well-founded and valid. But, we need not worry about that, for what we want is the investigation, not of the validity of natural science, but (even though it is an ideal) the investigation of the possibility of natural scientific knowledge, or light shed on how, in knowing, an objectivity existing in itself can be known, here “nature”, a world of things that are subject to laws valid in themselves, a world of minds that relate to a bodily nature, etc.

Now, if it rested entirely upon the given natural science, my investigation might be dependent upon its imperfection. I would do better not to meddle with that, though. However, if I investigate <the> essence of knowledge of nature and natural scientific knowledge from the angle indicated, there is surely enough of what is independent of all “contingent” natural science.² Already, the most primitive thing of all: In perception thingness figures for me and I have continuous experiences of these things. What is “implied” in this? In the ever new experiences, the thing appears in one state or another. The true qualities appertaining to it emerge for knowledge, or it emerges that the thing is different or that it does not exist at all, is a mere hallucination. What is “implied” in this? Or else, things are in space and what geometry teaches about space is necessarily valid. What is “implied” in this? It can be that I make a mistake in the geometrical proof, but

² Compare once more and closely following page.

it becomes apparent in the contradiction with the axioms, and again if I carry out the proof correctly, then the correctness shows itself in the Evidenz that for its part hinges on the logical form. What is implied in this?

- 5 However, we remain with knowledge of nature. I look at nature and knowledge of nature and inquire into its possibility. *I take nature as what is given by perception, by common experience, by the natural science based upon it, just so and not otherwise.* I engage in no psychomonistic, idealistic, materialistic, and other sorts of inter-
- 10 pretations. All these interpretations, metaphysical ones, result from certain theories of knowledge. Here, though, I am looking just for theory of knowledge. Theory of knowledge presupposes knowledge, the essence of knowledge I want to investigate, and objectivity of knowledge I want to investigate, and how the objectivity of knowl-
- 15 edge stands in relation to knowledge and what appertains to it in virtue of this relationship. *What is given in this is the objectivity, the way it is referred to in knowledge and knowledge as something referring to this objectivity. That is prior to all theories about possibility and essence of knowledge and their correlations.* Now, the question
- 20 arises: Must I have real knowledge in sight everywhere? Do I not in that way land in the river of the changing sciences often overturning their entire theories?

- One could perhaps say: *I can surely also study the essence of per-* 400
ception in my imagination. I place myself in the land of centaurs and, in
- 25 seeing centaurs, I produce experiences of them in my imagination, correct the experiences, or confirm them by means of new ones. In my imagination, I meditate upon the essence of the objects that are given in experience and the meaning in which they are given, etc. Likewise, in imagination, I imagine that I remember, that I expect, that
- 30 I draw conclusions, etc. I imagine that under similar circumstances something similar was often experienced. I find then that in this way probability is founded to varying degrees, etc. That is surely right and it is indeed connected with the fact that logic as science is possible (and, more precisely the logic of experience) without previously assumed
- 35 specific natural science. I can <obtain> epistemological insights in the reflective attitude just as well as I <can> obtain logical insights in the objective attitude without, as it were, thetic-logico underpinnings.

On the other hand, on both sides, I can also take the thetical as a basis, therefore, for example, specific trains of thought of the natural

sciences. In doing so, I do not presuppose their thetic validity, but certainly, if it is to be a foundational system, then I must have Evidenz of this system, or else I cannot investigate the essence of the foundation that I would also really have to have as an Evidenz in my imagination.

- 5 *Therefore, an inquiry directed toward the essence of knowledge and objectivity of knowledge does not presuppose the assumption, namely the thesis, of nature and knowledge of nature.* Although, we shall continuously look towards nature and knowledge of nature. It is also not a mistake if one begins as Kant did, knowledge of nature
10 is there, natural science is given, how is it possible? For, it is not a matter of grounding natural science anew, and the possibility that is investigated here is not settled logically by the reality of knowledge of nature, just as vice versa clarity, to the extent it may be possible, eliminates no unclarity of the natural sciences. That is not the way
15 it is, as if I no longer had natural science since I am not clear about how it is possible.

- The main thing is to be clear about the fact that the present inquiries lie outside the domain of all objective science and in a certain sense of all science in general. The phenomenological reduction amounts*
20 *to being constantly conscious of this fact and not passing between with naturalistic trains of thought where theory of knowledge is under investigation.* It is not because I am not certain or not clear about the existence of nature, the sense in which it exists, that I may not make any thetic use of it, but because the most beautiful and best “clarity”
25 is of no use to me here.

- Naturally, one can, though, also say: In epistemological reflection that is directed toward a certain possibility of knowledge, toward a correlation of a specific type, for example, of the type natural-knowledge of nature, I may obviously bring in nothing of assumptions
30 already presupposing the solution of the problems being inquired 401 into. Now, one cannot without further ado say that claiming the existence of nature sins against that. But, *existence is of no concern to me here*: only the *essence* of existence. This is entirely obvious when one has clearly formulated the epistemological problem.

- 35 Are false, wrongheaded theories of knowledge then rooted in the fact that they do not clearly formulate the genuine problems of knowledge and mix with other problems, or in the fact that they have epistemological intentions, but fall into thetic-objective trains of thought? One perhaps asks: How is the objective validity of logical

- laws to be understood? It is only to be understood as appearance of appropriateness, etc. To be noted is that *the initial question is empirical*: How is it to be explained that, when it proceeds in accordance with logical methods, *human thinking* meets with a thingness existing in itself, nature or an existing itself of mathematics? Logical knowing is a matter of human reason. Does human reason prescribe laws for nature? Since one is inquiring into human thinking, knowing, into the human faculty of reason, it is understandable that one easily falls into the trains of thought of the natural sciences. Then, from an objective perspective, one can in the first place show: *logical laws are absolutely valid*, without their validity every statement loses its meaning, so far as it is a matter of formal logical laws. And, so far as it is a matter of ontological laws, the assumption of nature loses its meaning. *What must be valid for me to be able justifiably to set myself up as a reality and to set myself into nature cannot be derived from facts of reality.*

- Now, it is, though, a question of human thinking, knowing. How is it to be explained that in their thinking humans encounter “reality”? Now, in the formal sphere (formal, purely mathematical truth), everything is clear. Logical laws are absolutely valid. So, every affirmation is true, to the extent it follows them, i.e., says something that is subject to them. But, how is it possible to recognize a logical law, an axiom? Something valid in itself? Something evident? Is that not a merit? And, how is the being of an “ideality” like a “law” to be understood? Do we first arrive at what is epistemological there?³ And, how in general is the grasping of a “being” to be understood, how in general is Evidenz to be understood? And, proceeding further there, one sees *that the question is a radically universal one excluding “human beings”*. And that humans must remain excluded, apart from the fact that it is also a question of how the knowledge of human beings is to be understood. It becomes apparent *that the problem must be posed for knowledge in general* (apart from the fact that, considered empirically, it is human knowledge) and that what holds for knowledge in general

³ Presumably meant is: Are logical laws not laws of thinking? How can they be absolutely valid? Furthermore, they are something, something atemporal. What kind of being is that, and how can such a being be given in the mental act of thinking? Likewise for numbers.

(perception, judgment, etc.) must by its very essence also hold for human knowledge. 402

If I have solved the radical problem of essence for all types of knowledge, then I also understand the knowledge that secures for humans their existence, their strengths, capacities, states of mind. But, that is irrelevant when it is a matter of understanding how human beings can encounter truth, naturally through their cognitive acts. For, *plausibility is grounded in the essence of these acts*. However, though, if the knowledge and objectivity of knowledge correlation is metaphysically meaningful, I can give the “ultimate interpretation” of what is scientifically proven everywhere just on the basis of theory of knowledge. Therefore, *I may not intend to engage in any metaphysics prior to theory of knowledge*. Now, in a certain way, all metaphysics implies theory of knowledge, but I must see that chance epistemological reflections are useless, rather that a radical theory of knowledge fully aware of its goals is needed as an absolute essence theory of knowledge. That is, therefore, to be pursued still more closely. What is especially needed is obviously this: to show in detail by examples that temptations persist to mix natural and philosophical position-takings, to allow essence theory of knowledge and empirical theory of knowledge to run together, to draw natural scientific theories into problems only solvable by an essence theory of knowledge. Dogmatic metaphysics, dogmatism persists precisely in that. Dogmatists want a metaphysics, a science of the absolute. In addition, in conformity with training in the natural sciences, this metaphysics is not simply supposed to be the natural sciences as a whole, their consummation. The absolute is supposed to lie behind nature and not be nature itself. How does one arrive at that? Only through epistemological reflections. The state of epistemological problems has already determined metaphysics (the Eleatics) since ancient times.

Dogmatism does not, though, recognize that only a consistent, completely independent essence theory of knowledge, a phenomenology of knowledge is what yields metaphysics as the genuine and only possible metaphysics and that the latter develops through epistemological interpretation of natural science. Absolute knowledge is not acquired by spinning thoughts out of empty concepts of being, the absolute, thinking, truth, science, and so on, but the material is, on

the one hand, the absolute givens coming under the heading knowledge and, on the other, their correlates in accordance with rigorous methods of the developed sciences, critically verified and checked. The epistemological interpretation of these sciences produces the genuine interpretation of being, the absolute.

For the time being, I am not yet completely clear about the order. But, it is certain that when sciences correspond to the main fields, we shall actually also be able to formulate the questions thus: How is natural science possible? How is physical natural science possible, how psychology or psychophysics, i.e., empirical science? How is the science of the objective conditions of the possibility of natural science possible, how is the ontology (of empirical objectivities) possible (pure natural science)? Belonging here: How is geometry possible, how are chronometry and kinematics possible? How is science of the formal conditions of objectivity in general (empirical or non-empirical) possible? How are pure logic and pure mathematics possible?⁴ How is noetic logic possible as a theory of norms of empirical and *a priori* thinking? How is phenomenology possible?

We have, though, yet other disciplines that cannot be found within these ranks because they have their place before formal and noetic logic. Namely, apart from nature, the world of reality, stands the world of values and goodness. Nature is the objectivity of experience (sensory perception, etc.). The world of values is the objectivity of valuing, the world of free personalities, universal humanity.

25 *APPENDIX II: <The Task of Theory of Knowledge>*⁵

The possibility of any essence insight is given with the essence insight, the possibility of any essence with the essence. But, here too, we have to investigate the *correlation*, therefore, another position-taking. Not that the essence “exists”, a valid essence, an existing possibility, not that the essence proposition holds, but what belongs to the essence of such validity in general (essence type, essence categories). The essence “is constituted”. Knowledge correlatively

⁴ Compare about this <Appendix II below>.

⁵ September 1907 (Editor's note).

belongs to it. *What belongs to the essence of knowledge in which the “essence” proves itself to be existing, as givenness? How is essence “constituted”?*⁶

- 5 Differently for the existence of matters of fact. If I bring their essence to givenness to myself through an example, then the example does not need to be any real existent, but the presentation of an existent. For example, the existence of a centaur: I present a perception to myself and the sequence of the unfolding perceptions constantly further confirming themselves. Naturally, I must see the confirmations.
- 10 Imaginary confirmations, modifications suffice, though.

I study, therefore, in phenomenology the “phenomena” and the correlations belonging to them. The procedure is purely “seeing”, I do not presuppose anything, I only draw from the phenomena given in Evidenz.

- 15 Why should I then not also be permitted to make inferences?⁷ Perhaps, because I transcend givenness? Or, because as long as the essence of the inferences has not been investigated, <I> may not use them? But, perhaps I may not engage in pure expressing and expressive judging either as long as its essence has not been investigated? Then I could, therefore, by no means begin scientifically. But, we are of course not skeptics because we say we do not understand knowledge. 404

- In the first place, one can of course drop all skepticism and simply say that *knowledge is a word for different phenomena and phenomenal correlations, whose essence, whose necessary connections I want to study*. I am not skeptically placing knowledge into question, but directing scientific questions to it. A person who does not understand an electrical system studies it, questions it, but does not disavow it. So, phenomenology is also a science that asks its questions and answers these questions in conformity with its method. And, this method is
- 25 the phenomenological method. For, the nature of these questions rules out presuppositions being made from the natural sciences. And, does it not also rule out making presuppositions from geometry or integral and differential calculus, from algebra? That must naturally
- 30

⁶The full concept of the constitution of objectivities, also of “essence”, was therefore already present in 1907.

⁷May one make inferences in theory of knowledge (phenomenology) before one has elucidated their essence?

be systematically investigated and established. So, one can therefore set out directly in search of a phenomenology of knowledge (and of a phenomenology in general), without having the point of view of theory of science and the scruples of skepticism to start with. That is valuable and to be put into action. If I start with theory of science, after that I must also develop phenomenology independently from it, and vice versa. If I do the latter, I must show how the problems of theory of science find their ultimate clarity by means of it.

- I also contrast natural and philosophical knowledge in mathematics.
- 10 Why? Well, *because performing mathematics is not yet understanding mathematics* (understanding its essence, how it is possible). Mathematical thinking also has its puzzles. For example, are not numbers, as it were, “objects”? Is not the series of numbers of the nature of a series of objects, though not thing-objects? And, if the theorems about numbers, as arithmetic states them, are partly propositions about properties of these objects, partly propositions about combinations of particular instances of these numbers in general (these universal objects have particular instances and relate to them as to a “universal extension”), how can knowledge say something about instances that are not in it and about universal objects that are surely not “immanent” to the knowledge?

- Therefore, once again, *how is mathematical knowledge possible?* How is purely logical, purely ontological knowledge possible? Can I also be a skeptic here and deny all of logic and mathematics? And doing so conduct epistemological inquiry all the same. But, that is not the point. But, I call “in question” logic. I do not “understand” it. I do not disavow it. But, I inquire into its possibility.

- The task of theory of knowledge is not to refute skepticism*, but to put an end to the predicaments into which knowledge lands in reflecting on its own possibility and to elucidate this possibility, the essence of knowledge and the correlations with the object belonging to it. With that, the reasons that urge skepticism are, of course, eliminated, while skepticism is absurdity for those who see it, which does not stand in the way of its not being refutable.

- 35 Finally, the question: How is phenomenology possible? How is phenomenological critique of reason possible? Here it is, therefore, a matter of the essence of phenomenological knowledge. Essence of knowledge in general encompasses phenomenological, logical

(analytical), natural scientific (psychology) knowledge. *Phenomenology, therefore, elucidates itself.*

APPENDIX III: Phenomenology

- 5 <(a) *The Course of Inquiry into Phenomena. Phenomenology as Absolute, Not Objectifying Science*>⁸

Why is any mixing of “objective” premises into theory of knowledge prohibited? One starts with the question, *what is knowledge and what can it accomplish*. How can people know existing things external to them, how far does this knowledge extend, what is the
10 meaning, what <are> the limits of the validity of the laws known by them and, above all, also, of that of the logical laws to which human science as such is subject?

One, therefore, meets with difficulties in knowledge, the alleged obviousness of which vanishes upon reflection. One falls into obscurity, contradictions. For example, thinking is a subjective process
15 of individual people that is given in human experience, in which they acquire so-called knowledge of objects existing independently of them and external to them, of laws valid independently of them. Thinking is a kind of mental process, obviously bound to human
20 nature, its patterns obviously psychological and like all psychology having their place in biology. The source of what is distinctive to human beings: the biological principle of adaptation, and so on. Naturally, inner qualities that adapt to human beings best of all will be of the most comprehensive validity. The most universal validity of
25 logical laws is explained by the fact that they express the most comprehensive conditions of biological adaptation. Obviously, these laws are valid for nature, as it is, for human nature and external nature. For
30 other beings and for a different nature (and nature is surely a fact), other forms of adaptation and laws of adaptation would be produced. What kind of problems are these and what kinds of ways of solving them?

⁸September 1907.

- Naturally, one can also justifiably raise questions such as: (a) How does the human cognitive process come about? Psychological questions. In which psychological phenomena does knowledge flow into reality? How do they appear, so to speak? What are their genera, species, changing features? (b) How is it to be explained that human knowledge knows transcendent objectivities, things, properties of things, laws of things, logical laws that are valid for things? To what extent can it do this? c) Is human knowledge, and to what extent is it, conditioned by the particularity of human nature, and to what extent must this conditioning set limits to the value of the validity of what is known? In consequence of this, is the being of human knowledge merely phenomenal being, i.e., can human beings, since they can only know being as “it appears for them”, since they can only know it in its psychological forms, in accordance with psychological laws, in principle, never know how it is in itself? Are the things known, the whole world and the infinity of its events only human presentations? A play of shadows in the dark cave instead of the original light itself? One can completely justifiably ask such questions.

- In response, the following is known: If one understands human knowledge just as a human, psychological process, then it seems obvious in terms of the findings of general biology that it partakes of the special features of human nature that have taken shape exactly this way under biological, natural circumstances. And, once more, it appears obvious that in consequence of that human knowledge could not be absolute knowledge. On the other hand, such a relationship of logical laws to human nature leads to absurdity, namely, this does not hold only for formal logical laws, but also for the logical laws of experience (for talk of a nature first acquires its justification by following them). If the logical laws and norms are absolutely valid, then, insofar as it is really constructed in conformity with them, human science is absolutely valid (only limited, so far as, in conformity with logic itself, the empirical proviso obtains in empirical science and the limits of probability, therefore, valid in conformity with its meaning). If, though, human knowledge is merely a product of the “contingency” of the biological nature of human beings, then no absolute validity can be assumed.

We land, therefore, in predicaments, in contradictions. Something is wrong there. We sense that talk of psychological laws, of human

nature, of biology, etc. already anticipates a transcendent validity (namely, actual, not merely human, validity) and that if, for whatever reason, the transcendent validity is questionable to us, we cannot anticipate such validity and posit it as present. Therefore, transcendent validity is the first problem, that which at first alone is perceived here as a problem. 407

To come to some clarity now, let us investigate the essence of knowledge in the most general way, that is, naturally, in such a way that we presuppose nothing, namely none of the questions as decided, of what we first want to answer. We formulate the problem in this way: We do not understand whether, and how, and in what sense knowledge is to encounter something transcendent.⁹ We may not formulate that in the way it was originally formulated: as human knowledge, etc. For, in so doing, we presuppose that there are human beings, because we naturally know this beforehand, or assume being able to know it. But, that is itself transcendent knowledge. We do not, though, understand whether, and how, and in what sense in general knowledge meets with something transcendent, therefore, not in this case either. *We must now hold all transcendent being in abeyance,* and generally understood also the being of one's own I in the sense of one's own self that according to our beliefs exists there among the things of the world and among fellow human beings. But, in so doing, have we not entirely lost our footing? In the sense of the problems in question here, transcendent, not immanent, knowledge is questionable. But, is immanent knowledge not my knowledge, that of the person thinking and epistemologically reflecting? Empirically speaking, yes. But, does anything then remain when I question my empirical existence itself? I try this with *the Cartesian meditation on doubt*. Properly modified, <it> yields the absolute being of the *cogitationes*, of the "phenomena". What do I have in doing so, and what kind of "phenomena" are these? What does "not-puzzling" immanence mean? Only now begins a clarification of givenness as immanence, of the sphere of absolute, directly evident judging. For example, the house standing opposite that I now see. I may not make any use of the existence of the house as something "transcendent".

⁹For the time being, transcendence still completely unclarified, just as is immanence.

What is the immanent thing of which I become absolutely certain? (1) perception; (2) that the perception perceives this house and no other, this Renaissance-style brick structure; and (3) what I have there before my eyes as an object (my existence and my eyes as realities set aside) can be expressed by the word Renaissance, etc., so far again as all transcendence remains set aside in doing so, for example, the fact that by Renaissance, people understand one thing or another, under which this falls as an particular case, etc. Implied also is that in this perception, the object's existence is posited as real, just that I do make not make any undue use of this existence. It is what is to be elucidated, the problem, not presupposition.

If I experiment with a thing-object, run through scientific thought processes, ascertain something, for example, a law of nature, or the explanation of a matter by means of laws of nature, then all of this is now "phenomenon" for me, I meditate on the thought process, *I meditate on the absolute consciousness and, on the other hand, its "content"*, the proof, the substantiation, what is substantiated in it, but as "phenomenon", it is again object of investigation, but not presupposition. 408

Here, I do not limit myself, say, to the individual phenomena that I had and that I am now really having, but I take the unity of the thought process, of the consciousness-system, in which the idea of proof is consistent, and the proof process itself and the system of states of affairs ascertained there. And, if in repeated reflection, the consciousness-system is new again and again, many an empty thought also refers to what was earlier, and I remain in the sphere of "phenomena" all the same.

Likewise, if I take *science as phenomenon*. A theory as phenomenon, any proof whatever as phenomenon. I do not contest science; I let it be valid *privatim*, so to speak. Only, here it can provide me with no major terms. I do not know what "objective validity" of the science is to signify, I do not understand whether it is valid, or in what sense it is valid, since it does seem to be meant to be valid transcendently. I do not rely upon theory, as if I wanted to further it or further the science. I take the theory-knowledge and study its "essence and <its> meaning". I do not want to derive new conclusions from those of the science, but I want to understand the possibility, the meaning, the nature, the limits of its claimed transcendently objective validity.

Namely, of the science, as it is “product” of acts, a stream of experiences referring to things, properties, relations, to their laws, at times disconnected, then connecting again through identification, referring back to “earlier” things, and in so doing still “directed” toward these
 5 same things, etc. So, I want to understand the transcendental essence, the transcendental meaning of truth and error, the essence of scientific methods, of logical patterns, etc.

What kind of course of inquiry is this one toward “phenomena” (“immanent objectivities”)? Various things obviously fall under the
 10 heading phenomenon¹⁰: the contents that make up the stream of consciousness, the “experiences” and the objects of experiences, i.e., the “objects of consciousness” “as such”, and once again their possible “reality” or “non-reality”, their mode of being or mode of not-being. The objects are to be “fictions” or “real” objects, namely, as objects
 15 of these acts of theirs: In the acts they are “referred to” as realities of “nature”, or as products of the imagination, or as “perhaps not real”, as “possibly real”, etc., as the case may be.

We are now standing at a lofty height of reflection, we regard this play of ordinary and scientific knowledge in its relation to positing
 20 of reality, or mere holding reality to be possible, or holding it to be probable or holding it in abeyance, etc. and ask what all that signifies, above all, what it signifies for a reality to be indubitable, justified, well-founded, a proof to be correctly conducted, etc.

We find acts and objects, we find that acts refer to something,
 25 merely present something, posit something in one position-taking manner or another, that acts see something, etc. We want to study that. These “correlations”. We study acts as essence, but not <as> psychological processes. We are not in psychology. *All objective science is our problem.* For all objective science, we want to achieve
 30 the same thing: The elucidation of the possibility of knowledge, therefore, of scientific knowledge in general, in so far as it knows, “encounters”, intends to reach what is transcendent, really in general what is objective. It would be a metabasis, were we to let ourselves become involved in investigations of objective science. It may be

¹⁰ (a) stream of consciousness in the deepest sense; (b) the lasting or changing perception, memory, the judgment-, wish-phenomenon, etc. (c) object “as such”; (d) mode of reality, etc.

- that objective science still needs much investigation, is truly capable of unlimited extension, but even if it may be complete, it does not encounter our problem on its path. *The problem belongs to a new dimension*: How does knowledge's reference to a known objectivity, so to speak, "happen", how do knowledge and objectivity belong together, how is one's relationship to the other to be understood and, with that, the validity of knowledge to be understood, or the being of what was known as such? Objects, transcendencies are not given for us as realities here and as realities to be posited (supplying premises), and just as little are "mental phenomena" there for us as realities.

- In Cartesian meditation, the experiences of consciousness are posited as realities.* With that, they experience transcendental objectification. As that, they are problematical for us, and the theory of psychological knowledge has to solve the problem regarding them.
- There is only one being for us, the being of the phenomena, and the being is not real being.

- What are they, what are presentations, judgments, etc. in theory of knowledge? They have no place, they have no time, they have no reality.* Likewise, as they appear, the "appearing things" do not have place and time (NB, as appearances) in any genuine sense either, and even things, as science posits them, of course, have place and time, but for phenomenology, they are also just "phenomena", namely scientifically thought as such, "something definite and substantiated in accordance with the scientific method as being in space and time", but in quotes precisely.¹¹ That means we reflect upon it in a completely different way than objective researchers do. We as epistemologists are not objectively scientifically judging subjects, but subjects reflecting objectively upon scientific judging and its results and determining the meaning of that in the correlation. And, that means that we judge epistemologically, not scientifically. We are epistemologists, not natural scientists. It is not as if mathematicians are just mathematicians and not natural scientists, and vice versa. Mathematicians do

¹¹That is not correct. We have as this-there, and possibly as empirical this-there! acts of judgment, perceptions, etc. And "in" them, appearances, imaginary appearances, perceptual appearances, etc. Furthermore, things, natural forces, etc. posited in scientific substantiation. And, all "the same" matters (*Sache*) stand opposite them in the essence attitude, in quotes. We do not make any use of existential positing.

not deal with nature. On the other hand, when natural scientists use mathematics, they are mathematicians. They like having shoved the work in the direction of professional mathematicians, but in making use of their results as helpful premises, they judge mathematically.

- 5 That they are not mathematicians only signifies that they do not see mathematics as their life's work, which lies along entirely different lines. In comparison, epistemologists deal with nature and with natural science. But, they are not, for all that, natural scientists. They do not deal with nature <in order> to investigate it, i.e., to discover
- 10 theorems of natural science, and not with natural science in order to appropriate it and not with natural scientific thinking in order to engage in psychology, but they inquire and investigate in order <to understand> the meaning of nature as content of natural scientific thinking, of natural scientific "consciousness" and the "possibility",
- 15 meaning, "significance" of the objective validity of natural scientific thinking¹² as thinking of a nature existing "in-itself". *The "phenomenological reduction" accordingly signifies nothing other than the requirement to remain constantly within the meaning of one's own investigation and not confuse theory of knowledge with natural*
- 20 *scientific (objective) investigation.*

- Constantly to keep in mind is that we are not dealing with the sphere of "transcendental" essence, "transcendental meaning", and not with that of actual nature and the idea of nature, whereby precisely the investigation of the "meaning" of nature does not itself belong to natural
- 25 investigation.¹³

Obviously, one can also say that investigating nature is determining nature in natural scientific thinking, and investigating nature in general in essential universality is ontology. Theory of knowledge, though, recognizes that nature is the *meaning* of natural scientific thinking (valid, that is) and determines it as such validating

¹² Natural scientific thinking, better: natural scientific consciousness.

¹³ One could object: One thing is existential positing of nature and accompanying existential research (science of existence, 'matter of fact' was originally in English (Trans. note)). In opposition to this, it is a matter of investigation of the essence of nature in general without existential positing of nature. But, would phenomenology not be ontology then? No, for in phenomenology, it is a matter of <the> relationship "nature in general" to knowledge and <to> consciousness in general and vice versa (the existent as the existing posited thing).

meaning.¹⁴ It also demonstrates, though, what lies in the essence of natural scientific thinking (and of objective thinking in general) and what lies in the essence of having meaning and having-a-valid-meaning. And, what is consequently implied in nature's being validating 411 meaning of one kind or another. That is "meaning of nature", meaning of its being-in-itself, etc. There, different concepts of meaning are at play that have not yet been clarified enough here.¹⁵

And now phenomenology! It is an absolute, not objectifying science. It is not a science of matters of fact, science of empirically "objective" 10 existents. What distinguishes its "objects" from the objects of such "objective" sciences? It has to do with "phenomena". With phenomena in the sense of experiences and phenomena in the ontic (noematic) sense.

As regards sciences, we have the natural sciences of physical and mental nature, the mathematical sciences, logic, including formal 15 logic, the sciences of value, ethics. None of that is phenomenology.

Phenomena would be:

1. Everything found really (*reell*) in the stream of consciousness. I meant, then, an essence theory of the consciousness' being possible. Essence 20 (*Wesen*) equals essentiality (*Essenz*). Perception, imagination, memory, etc., can be studied and studied in terms of universality, i.e., immanently graspable universality. I meant also the sensory contents that act as sensations in perception can be regarded in this way. Color manifold, sound manifold, and the "having of these contents in the consciousness".¹⁶

2. There can, though, also be an ontic phenomenology with regard to transcendent "objects". The perceptual objects, objects 25 of naive perception, objects of imagination, memory, as such, etc., "as they are referred to",¹⁷ phenomenal space, phenomenal time.

¹⁴ Meaning equals presented, judged, thought, substantiated object or state of affairs as such.

¹⁵ Meaning is here naturally what is referred to as such, or what is posited and validly posited as such. Empirical being as validating meaning of empirical knowledge, of the manifold of experiences, etc. is, though, such that nothing is without consciousness, etc.

¹⁶ Everywhere the distinction is to be carried through between the last stream of consciousness and the really (*reell*) immanent phenomena (*cogitationes* lasting and changing) constituting themselves in it.

¹⁷ What are referred to as objects (*Die gegenständlichen Gemeinheiten*) are "meanings" (*Bedeutungen*) in a certain sense (*Sinn*), a sphere that lies prior to being in the sense (*Sinne*) of the real: the "senses" (*Sinne*).

Universal descriptions. The appearing objects “in themselves” and their trailing off, their sides: the objects as they are intuitively “given”, clearly let themselves be withdrawn (as object-phenomena), the presentation objects (presented), in terms of what does not “appear” “of” them, their “indeterminacy” and determinations. Therefore, that is obviously inseparable from the analysis of the acts (act-essence) as “phenomena”. A phenomenology of acts must describe the acts in terms of “what they intend”, what they “make appear”, what they “mean”, etc. And, the “ontic” appearances are only determined in relation to acts. Likewise, for empty presentations, for thought-acts of the higher (analytical) sphere and their meanings and essences. 412

There is, therefore, no properly ontic phenomenology, and the phenomenology of “reality” as objectivities constituting themselves in esthetically, logically coherent acts is not, say, merely a morphology and physiology of nature as developed in the objective sciences, just everything “posited in phenomenon”, but a morphology and physiology of “appearances” in which nature appears in the different kinds and forms of experience. Only in reference to “sensations”, or (when one distinguishes between sensation and sensation-content) to sensation-contents, does a “color geometry” seem to be inseparable, and so on. However, the question arises as to what conscious-like actually is, just as the question arises as to what geometry and chronometry and kinematics are.

25 <(b) Color Geometry and Phenomenology>

Are colors and other qualities moments of the stream of consciousness? In terms of time and place, it is certain that they are nothing of the kind. In the stream of consciousness, we have experience of color. *Color is perceived as now and, at the same time, it is fading away.* 30 *Is the fading away a change of quality?* Is it a change of intensity? Is it graspable, determinable? (What kind of change is it when I hear a sound, and it suddenly stops: the consciousness is still there as sound consciousness? However, the question is whether that is to the point.) On the other hand, if a sound lasts unchanged, then I can fix it, namely 35 attend to its identically continuing quality (though small variations

- can remain imperceptible, something by and large identical is produced, a quality-species, though “roughly”). Sounds in this sense, as something temporally identical, I can put in order. I can recognize them again in memory, but only roughly and, consequently, only put them roughly in order. Of the flow, though, I can only say that it has phases of “sounds”. I can catch hold of differences in them, but I cannot put them in order and fix them like the *immanently objectified sounds and, in any case, sound geometry only relates to the latter*. Likewise, color geometry does not relate to the colors of the “flow”.
- 10 There, there are no colors, but rather fading colors or color sensations in the genuine sense.

We have, therefore, in general to distinguish (and not simply in the sensory sphere) between:

- 15 1. The moments of the flow and more precisely those that constitute the consciousness of color, of sound, and so on. These are sensations. They are not fixed units. They are “ἄπειρον”.

2. In the laying hold of the sound as it is given, the color as it is really given, etc. by abstracting from all concrete (*dinglichen*) meaning, we have lower-level objectivities. This sound is an object having its existence in “subjective” time. This time is not the world’s time. Of the world, nothing at all needed to be known. This sound is, therefore, what is existing in this time, lasting in it, and perhaps “changing”. In the case of changing, corresponding to each phase is a possible extension of duration of an unchanged sound: an *idealization* that we proceed with here. As, idealizing, we then in general posit identical sounds that differ in their identical ideal species, or come to agree in it, etc.

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- There is nothing scientific to say about single sounds when we limit ourselves to this sphere. That a sound was before, another after, one lasted longer, the other was shorter, etc. yields no “scientific” statement. In contrast, consideration of the ideal species, namely, identification of the species time-filling “quality” (or better time-filling “content in the primary sense”), its order and accompanying laws of essence, those of order among them. *The laws of essence are, therefore, species-laws of what can be exhibited in the flow: not laws of sensations*, and this is so everywhere. It is the same for colors, not understood as concrete colors, but as colors as they are “immanently given”. And, this is so in general.

- Of course, this sound-, color-, etc.- law then at the same time further holds for color sensations of perceptual objects or for imaginary colors of objects of imagination and memory, therefore, for colors of appearing and *quasi*-appearing empirical objects. For, the object-appearance, or the appearance-manifold in which the object appears, is obviously such that in the manifold of color-givens that we take it from and that belongs to the very same concrete color (e.g., the color of some face of a cube), *one is favored, in whose meaning the whole is apprehended*, meaning that a normal perception belongs to each object with regard to each of its sensorial qualities (that is with regard to sufficiently small parts of surfaces; it is, therefore, again a matter of an *idealizing view of limits*) in which the immanent sensory given gives the “individuality” with respect to which all other sensorial givens are “versions” of the appearance manifold.¹⁸ For example, a thing smells a certain way: It has the smell, but in each objective state of the object we have shades of smell, smell versions. In the state in which we smelt best, we have “the” smell. Likewise, and more especially, for colors. I see how the object in the corresponding “place” is “really” colored when I hold the object in a certain normal position. (A cube frontally, so that I see best, for example, if it is colored evenly without blotches, etc.) *That is all fluid and relative, but sensorial qualities are fluid and relative in just that way*, and we have ideal determinacy (but only intuitive, not logical) in the sensory givenness, not of the property, but of the individual, immanent given.
- Now, it should be mentioned, though, how far what can be stated *a priori* about the “immanent” givens of a sensory nature like sound, color, etc., namely sound quality, sound intensity, reaches. That any two intensities found a one-sided relation, that for any three intensities an intensity sequence (the law of transitivity) holds, etc. How do things stand with sound and *color geometry*?¹⁹

To put the “available” colors in order, we must first be able to capture them as identical and identify them over and over. They must

¹⁸ It is obviously not that simple. For scientific things it does not hold, only for things of the practical world outlook that always, as regards practical interest, after all have a different practical meaning.

¹⁹ Compare the “appendix” seven paragraphs below.

be objects for us which we can come back to at any time, that we in some way determine, capture, which we can go back to again and again.

- We can indeed compare and order the “immanent” colors of the
- 5 moment that are actually “given” to us. But, to what extent do they stay fixed? Well, if the external object stays fixed, its lighting, our position in relation to it, and we can really perform the immanent reduction well (i.e., phenomenological reduction without further ado). And, if we can reproduce the conditions identically and main-
- 10 tain normal sense organs, then we shall have the same givens over and over. Namely, we shall have empirical grounds permitting us to presuppose them. In this, we limit ourselves not to identification of the memory or what is remembered with what is perceived again with respect to “the” quality. We know that memory does
- 15 not admit of any absolutely sound basis for comparison. We waver about whether one or another nuance presented to us was the same as the one we had earlier. We even say that memory deceives us, which presupposes, though, that we have the right to assume that under “the same” objective conditions the appearances are the
- 20 same and consequently the givens to be “drawn” from them of that “immanent” kind. By means of this objective mediation, spectrum, etc., we then construct a continuous continuum for ourselves and investigate its dimensionality, etc. We take psycho-physical paths here, and on these paths, which are empirical, we ascribe to perceiving
- 25 empirical individuals possible sensory data as ideal unities that we could mentally construct. And, corresponding to them is also an empirically mediated insertion of the phenomenological. Namely, belonging to the same “quality” is also the same ideal mode of time consciousness, of consciousness of change, etc. and also of
- 30 absolute <consciousness>, so far as corresponding to each mental experience is an absolute experience, an absolute moment of consciousness. It is clear, therefore, that here we *are not in a sphere of the pure a priori* and so not in a sphere of phenomenology. Rather, we are dealing with a unique group of ideal objectivities constituted through mediation of the natural constitution: belonging to
- 35 the essence of sensory object-consciousness is a kind of “reflection” (if, one wants to call it that) to be brought about, in which, not a concrete, but an “immanent” color is constituted, an “appearance-

color”, since it is to be drawn from appearances, or has its individual instances in appearances. For, it is itself a species. And, so far as different empirical individuals can have empirically the same appearances, they can also find the same appearance-colors (which, though, are no more mental than the appearance is). And, since the appearances can be determined intersubjectively in keeping with the principle that under the same circumstances, normal individuals “have” the same appearances, then appearances and appearance-colors, appearance-sounds, etc. can be objectively determined by means of nature objectivity itself and then ordered in terms of their species, the various forms of these species investigated. *In this, the laws of ordering are a priori and phenomenological because drawn from the actually given appearances.*

It is to be kept in mind in this regard that appearances themselves are objectivities in precisely the same sense, namely, in the first place, not concrete, purely immanent ones like those colors, sounds, etc. Also, they are in “subjective time” and only given in it and not absolute consciousness, but constituting themselves in absolute consciousness. They are, therefore, also from the standpoint of genuine psychology (and, likewise of its colors, etc.) no more mental phenomena than are the sensory qualities of the appearing things completely coinciding with them in content, or than the appearing things themselves that “just as they appear”, namely with their sensory qualities, are called “merely subjective”, are considered by many to be merely psychological products, therefore, even psychological, while they are anything but psychological data. There, the question arises as to how one determines the “psychological”, the object of psychology (see below).

Naturally, in a certain sense, colors, sounds, etc. belong to phenomenology, namely as objectified (or, to be objectified) in subjective time. But, the scientific objectivity that we constitute in color geometry is no longer the original one. Now, this means: *all colors that can be “sensed” by me and other people, by humans and animals, can be determined and ordered in such and such a manner.* This concerns, of course, the color that I now “sense” (equivalently: constitute in subjective time), but the identity of this color is an identity presumed through those empirical mediations. Under “the same objective circumstances”, any other person would “sense” the same color. In relation to the world

of human beings and to the world in general, the identity of this color is something to be established with probability, within certain limits, is to be established precisely in idealization.

- But, what does it matter? It is, nevertheless, the same color that I
 5 find, and that is, nevertheless, a phenomenal color. It is, therefore, nevertheless, a matter of a science of phenomenal colors, even though of an empirical science based on natural science (or, on psychology), and more generally a science of the appearances of things (shades of things), of appearances in the way painters roughly capture them in their identity
 10 and also in empirical mediation. They know the extent to which that depends on external lighting, etc. Concrete appearances are indeed made up of sensory components, and these components are “the” color sensations, sound sensations, etc., each a “transcendence in immanence”. *If* 416
 15 *one understands psychology as the science of all “subjectivities”, then this theory of appearances also belongs in psychology.* But, of course, in what way does the “subjective” yield a unit? That would be something to take into consideration and also has yet to be taken into consideration.

- For the time being, I add: If phenomenology intends to be a science that includes all empirical suppositions and can provide critique
 20 of knowledge with a foundation, like the critique of reason in general, then what figures here as empirically mediated color geometry, etc. and general theory of appearance is not phenomenology. On the other hand, it is *also* a phenomenology and, consequently, we have to distinguish *between “pure” phenomenology and phenomenology*
 25 *of empirical mediation*, or absolute phenomenology and empirically mediated phenomenology (mediated through relation to nature and empirical human beings, empirical beings with minds).

APPENDIX

- If the colors in the color manifold (color geometry) are ordered,
 30 then the objects ordered therewith are not the sensation phenomena of the stream of consciousness. But, they are precisely objects constituting themselves foremost in consciousness. They are not concrete objects. Are they concrete colors, objective in the sense of properties like the color of this wall? Or, the species corresponding to them?
 35 And, are we not speaking, on the one hand, of immanent, sensed

- colors and, on the other again of property-colors? Is it correct to speak of sensed colors? Instead of color sensations, or how else? Color moments as contents of the flow of sensation? In the stream of consciousness with its now-point and its time-trail, we have the phase of the color experience corresponding to the now and the flow of the “fading” phases. If “I attend” to the immanent object, then I have a constituted “time”, the color red now and the color in the past corresponding to the fading phases. And then, the color red now, and now over and over, lasting. If I reflect in this way, I have the phase-manifold, and *what is fading does not belong in the color manifold*. An individual color, i.e., the color that is now and was possibly the same as earlier, that lasted, etc., but “unchanged”. The lasting, unchanged object color, the one having possibly lasted, the object that is in time, that fills time, in longer or shorter stretches, but irrespective of this time and span of time. Time-filling matter in terms of its essence or content. If we take the time span *limes* = 0, then we have a phase, an “objective time phase”. The time-fullness as thing-object and the concrete red related to a preferred appearance-phase. *Can we in turn say of the moments in the flow itself that they are colors, or even just of the moments belonging to the now?*

- It seems clear that the objects, reds, blues, etc. that color geometry 417 deals with are not moments of the flow, but are also not, without further ado, immanent experiences (sensations), but concrete contents, just taken independently of real existence and of individuality. Indeed, red sensations correspond to every objective red. But, it is to be noted in this regard that belonging to the sensation manifold are differences that are not in any way viewed as facts about the objective colors and do not receive their proper place in the ordered color manifold. Belonging here are differences of vagueness and clarity. If I look at an object without fixing my sight on it and attend to what is immanent, for example, this green, and then fix my sight, are these differences that condition differences in the color body? Are they two different shades of green? One will be hardly able to say that, in any case, not with certainty. It seems that sensation colors indeed correspond to certain “colors in themselves” in a kind of sameness, but, nevertheless not, without further ado, colors in themselves to all sensation colors. In any case, that is something to be reflected upon earnestly, and it certainly seems to me that colors in themselves are unique objectifications.

<(c) *A priori Objective Sciences vis-à-vis the Science
of Constituting Consciousness. The Time Problem*>

- Is the case the same in geometry, kinematics, chronometry? If we use the word “sensory-given” for those immanent objectivities mentioned earlier, then we also have to speak about what was sensed with respect to time and space. Namely “subjective” time, time in which “the sound” that is “sensed” is itself sensed time. (Of course, whether the word sensation is suitable?) Likewise, we have a sensed “extension”. With the constitution of the thing are constituted the planes, surfaces, the body that is filled with colors and other “sensory qualities” (not qualities in the psychological sense, but sensory qualities), and of all of space. The appearing thing with its appearing body, its extension, belongs in phenomenology, if we consider it precisely as “appearing”, as pure “phenomenon”: in the phenomenological attitude. And, likewise the temporal duration of the thing and its qualities, the temporal duration of the concrete processes, the temporal extension (this “appears” as the same for the sensation as for the corresponding property). How do I arrive at geometry then? Do I also need empirical mediation here, i.e., mediation by nature and the human world? Is space an empirically mediated unit related to the objective world and the world as an intersubjective unit? *Do empirical assumptions lie hidden in geometry just as in color geometry*, where I require the spectrum, color wheel, etc. to determine the identity of colors (which I need anyway if I want to order them from every angle), and in the assumption that I and everyone could and must “sense” the same thing under the same external and psychological circumstances? I see the things and find them spread out. I have a presentation of the things extended and dispersed in space. I have a presentation of them moved, etc. Each is divisible, measurable, etc. For me to think that, do I need an empirical assumption and empirical relation to actual persons? Certainly, if space and, especially, the extension of the thing at hand are to be the same for all people, for all empirical humans, and if for all people my thing is to be able to be their thing, then I am talking about strangers, etc. *But, no geometry speaks of that*. Naturally, no geometrical axiom is a statement about “sensations” or sensory-givens. We are now in a new sphere. Nor, about qualities that as such are spatial-fullness and certainly presuppose space. The qualities, apart from spatial ones, agree

with the sensory-givens. Through spatial objectification (that “makes” thing-objectivity), a sensory-given truly represents the objectively concrete quality as the same. The surface is colored thus and all other color appearances are precisely just appearance-colors.

- 5 However, the geometric axioms are not statements about natural objects as really existing objects either. They are ontological so far as they concern the mere “essence”, the mere “content”, the mere “phenomenon”, whereby, though, phenomenon is now the thing-essence. Judgments are made about “possibilities”, about “ideas”. And, here as
 10 everywhere, “idealization” is something belonging to the essence. In “approaching the object” and its surfaces, points separate from one another. Approaching is “possible” *in infinitum*. This “*in infinitum*” is still very much in need of investigation.

- 15 Therefore, geometry holds in the pure sphere so far as is does not require any empirical assumptions. Likewise, the theory of time, the theory of motion. *But, is geometry now to be claimed as belonging to phenomenology?*

- 20 That is also to be considered. These sciences are *a priori*. On the other hand, they are certainly “objective” sciences. I can, on the one hand, practice empirico-objective science. Things are there, they change, move, and interact. How is that to be described and made subject to laws? On the other hand, apart from positing experience, I can reflect upon what belongs to the essence of thingness in general and especially what belongs to the essence of spatiality, temporality,
 25 of ways of moving, to the essence of color, sound, etc. To the essence of thing and property in relationship to one another, to the essence of concrete changes and changes in general. One can also engage in *a priori* reflections about conditions of the possibility of a nature in the meaning: What must be fulfilled for many things in the manifold of
 30 what is unchanging and changing to be bound to one another in such a way and related to one another in such a way as to be able to constitute a nature that is self-identical and stays the same. Of course, what kind of identity is that? An individual “thing” is also self-identical, even if we think that it changes anarchically;²⁰ only that it changes in
 35 general (as the same thing). Or, only partly anarchically, not perfectly 419

²⁰ But then, it is not a thing, has no material “nature”, is a mere phantom.

- regularly. A thing partakes of a nature when it has a determinate, set “nature”, and many things form unity of nature when they are determined and harmonized with one another in the meaning (or, when they each have a nature in the meaning), that in this context,
- 5 under these circumstances of their being, the nature of every other moment is absolutely determined beforehand out of what is proper to a moment, or a moment’s change differential. Nature practices a kind of “self-control”. It changes its states, but retains its “essence” in doing so. It is also no mere aggregate of things, each one of which
- 10 in its own right with its changes is subject to laws (monads), but there is the greatest coherence in the manifold. The concrete changes are mutually interdependent and dependent in a regular way.

- If one keeps an idea of “nature” in sight, one can, therefore, presumably scientifically determine it and investigate the conditions of
- 15 the possibility of a nature *a priori*, and in applying <that> consider what in the actual nature is *a priori* in the meaning for it to be required by the idea of nature in general, and what is actual. *Kant’s transcendental method* (see also below).

- In all of that, it is only a matter of objectivities and not of knowing and
- 20 self-constituting of objectivities (compare later the A pages <Appendix B IV>). Investigation of the *a priori* of nature! What belongs to the idea of thing as something self-identical amid what is unchanging and changing? What belongs to the idea of space as prerequisite for the possibility of identical thingness? Belonging to the essence of the
- 25 thing is that it has a body, that this body can remain unchanged and simply can move. Homogeneity of space in itself, etc., idea of time as a form. Can one also add: idea of the regularity of nature? Idea of causality? Of course, naturally, but in any case also: thing and qualities. Most universal formal ontology: object and properties, relation, possible forms of relations, whole and part, number, state of affairs, in
- 30 short, the formal logical that does not presuppose any thingness as objectivity. In all of that, therefore, nothing about knowing. Nothing about “subjectivity”.

- Cannot one then also study the idea of I-subjectivity in objective
- 35 science? Plurality of egos. Plurality of egos connected with understanding. Conditions of possibility of communication. Plurality of egos for which one and the same thingness exists. Idea of a nature for many egos and of egos related to one nature. Conditions for the possibility of a world as psychophysical. Everything *a priori*.

5 *Objective science!* Does not all science investigate objectivity? Where would one draw the line? However, are we not speaking about absolute consciousness and the constitution of all objectivity in it? And, if we are not doing that in a science, do we not want to make scientific findings about that?

One thing is certain. There is an *ultimate science of consciousness* and of objectivity of every kind constituting itself in consciousness. And, no less certain is that in this regard, consciousness is not an object (*Gegenstand*) in the sense of things, minds, world: not *Objekt*.
 10 I ask, for example: What belongs to the essence of “perception”, to this consciousness of self-present, “temporal”, now existing objectivity? What belongs to the essence of perceptual contexts, so far as
 15 and its relationship to perceptions, memories, etc. To begin with, is not perception also an object, like color, sound (*concretum* as a given that is not a thing), therefore, temporally lasting, constituting itself as a temporal object? 420

Perceiving a thing, I can reflect and refer to the perception as such,
 20 the consciousness of the thing, the perceptual consciousness. I wish to find in this the perceptible *concretum* that becomes a given of its own (facet of appearance, the appearance apart from meaning) and a duration-given, change-given, etc. And, a given of which I see that it lies in the thing-perception. Reflecting upon past thing-perception
 25 I find it “implicit” in it. It was already there, but not as something referred to. And, I can find the meaning, the being referred to, the belief. Do these also have authentic duration in time, and would this only be in “subjective” phenomenal time? Or, do they owe the temporality only to the core of constituted originally temporal objectivity?
 30 This itself “dissolves” in the flow of color sensation phases, sound sensation phases, i.e., of non-objective ones, but better in the flow of the sensations. Echoes of sensations, in short, in what constitutes time flow.

Referring, heeding, meaning, believing, and so on are not new
 35 “primary contents”. Are they perceptible things in the authentic sense? Were one to decide that they were atemporal, then they would not have earned being called this in the authentic sense. But, they are indeed temporal, and one could only ascribe the atemporality to the absolute consciousness constituting them. But, how do they become

objective? What does investigating their essence mean? Is essence to be understood in their case in the same sense as essence of color, of shape, etc.?

5 Now, all investigation of essence refers back to ultimate particulars that must be given as “contents” (not as essences), so that the “universal” can be grasped in them. May one say: the ultimate particulars are either constituted, namely as enduring temporally or changing particulars, as identities (though not always real in the sense of thingness, even of a nature), or as constituting, not real?

10 But, how can one seriously say of the constituting consciousness that it is a particular: for reflection on essence! Then, it would have to be truly given. Is, though, absolute consciousness given and ever to give? Is not everything given perceived, everything perceived not objectively in subjective time, everything temporal constituted, there-
15 fore, just referring back to an absolute consciousness?

In facing this problem, this is to be held fast to in any case: There is in any case a “constitution” to investigate in the sense that, starting with the empirical objectivities as given by perception, memory, etc. and scientifically known by natural scientific thinking, one traces
20 back to the perceptual contexts, memory contexts, etc. and studies them in their essence within the form of subjective time. 421

What still remains is the time problem. For, if the phenomenological I, so to speak, meaning, <if> all these consciousness-phenomena in their intertwining, in their unity themselves are “mere phenomena” of an
25 “absolute I”, then the constitution of these phenomena (of these phenomenological objectivities) is everywhere the same. The big problem of time consciousness is not only the problem of objective time for the one objective world, but the problem of “subjective” time that is a form of everything “inwardly” perceived. This problem, though,
30 is a unique one. It does not differ in accordance with the different inwardly perceptible things.²¹

If we leave behind theory of knowledge and proceed to psychology, then what empirico-psychological objectification experiences is not absolute consciousness, but perceptions, memories, expectations,

²¹ But, we must separate the time of constituting consciousness and the time of constituted phenomenological objects (the time of the intentional as such).

- etc., what is “inwardly perceptible”. It has its now, its subjective time which, though, like subjective time in general, is objectified into a world time. The whole unity and ordering of the psychophysical world only deals with “phenomena”. Everything that is posited there as reality refers back to subjects and their appearances. The subjects are the empirical subjects, and empirical subjects “have” their appearances, their mental appearances. The perceptions, etc. of the individual egos form a complex, the complex of phenomenological consciousness. That means that from the empirical I as psychophysical, we can detach
- 10 an I-consciousness of inner perception, namely the I-consciousness that is found in inner perception as unity of perceptions, presentations, judgments, etc. The I that in the flow of subjective time has its life in these acts. (Of course, that is a big question, that I have evaded too much, the Evidenz of the I as something identical that, therefore,
- 15 of course, cannot be in the bundle.²² Must we not acknowledge that I find “myself” as something absolutely certain, as having the acts, living them to the end in the various acts, but as one and the same? I is not a content, not anything inwardly perceptible. Then, it would truly be something had by me. But, do I not find myself and do I not find
- 20 myself in subjective time? Am I, therefore, not something perceptible? And, is it not a matter there of an apperception of everything inwardly perceptible, i.e., of the kind that includes everything inwardly perceptible as phenomenologically evident, but an apperception that precisely contrasts with something empathized, with another I.)²³
- 25 The I of inner perception is objectified in psychology by the relationship to the body. The real world, a world of things and beings with minds. However, this world dissolves into a plurality of not “real” egos, of those egos, each of which has its inner perception, each a stream of perceptions, presentations, judgments, etc. Is this
- 30 I-plurality, which of course is not directly given as a plurality, then not yet the ultimate one? Not yet the absolute one? Therefore, in

²²The mere bundle gives a complex, but no I. The I that experiences is that which has knowing, character and lies in every act that senses, thinks, etc. that, now this and then that. Therefore, an intentional unit. That is I of inner perception in the authentic sense.

²³Compare also Pfänder <*Einführung in die Psychologie*, 1904>, Introduction.

consideration of the enigma of the constitution of subjective time consciousness, I end there with a question.²⁴

*APPENDIX IV: <A priori Ontology and Phenomenology>*²⁵

- 5 There has been talk of a *color geometry*. Can one also speak in the same sense of a geometry of perception, geometry of memory, and in general of a “*geometry*” of experiences? It is indeed a matter of an essence theory. And, is it not also at the same time a matter of propositions that are indirectly inferred? Must everything actually be directly grasped?
- 10 As far as authentic geometry is concerned, it is based on directly evident theorems and is indirectly derived from them. The axioms of geometry do not belong in phenomenology, *because phenomenology is not an essence theory of shapes, of spatial objects. It is in general not ontology*. Naturally, in a certain sense, in addition, “experiences”
- 15 are also objects, and the essence of these objects truly ought to be investigated. If, though, we start with the fact that objects in general and of every kind are objects of knowledge, that it belongs to them <to> be able to be thought, perceived (to be given), remembered, etc., or to be able to be thought, beheld, etc. in some other way in
- 20 acts, then this correlation between object and “knowledge” or “consciousness” (in consideration of the fact that experiences themselves are and can in turn be objects of knowledge) produces a *division of objects into objects that are not knowledge, not experience, or not consciousness, and objects that are*. Accordingly, a difference would
- 25 also be produced between essence theories of “objective” objects and essence theories of non-objective objects. But, is this distinction the main thing or does it bring the main issue into prominence?

²⁴ Much is still unclear there. Inner unity is naturally the unity of a stream of consciousness and thereby unity of everything perceptible in immanent phanisiological perception. Belonging to the essence of the I apperception is that it grasps everything phanisiologically perceptible in the unity of the flow as “experience” actually belonging to the I as its sensing, or sensed, etc., as its appearing and is appearing, perceiving and perceived, presenting and presented, and to which corresponds an imagined different I and an empathized different I, etc.

²⁵ Presumably, September 1907 (Editor’s note).

I spoke of phenomenology of knowledge (and, furthermore, phenomenology of consciousness²⁶). “Knowledge” is our point of departure. Of knowledge, we study its “essence”, namely its relationship to objectivity in its different manners and forms. 423

- 5 We can also study essence of objectivities not in relationship to knowledge. That yields ontology for its own sake. Then, though, it is apparent that also belonging to the “essence” of an objectivity is its knowability and the fact that belonging to its possible knowledge is in turn a manifold of possible cognitive acts, of “experiences” that
- 10 are of a determinate essence, therefore, *that the essence of the cognitive experiences bears an essential relation to the essence of the objects that are known there*. That means, though, that it bears a relation to the essence of these known objects. That an object, not only in general, but an object of which this or that content or essence is
- 15 presented, perceived, thought, known, to which cognitive acts and complexes of determinate essence belong and *to every variation of the object-essence, a variation of the cognitive manifold regarding its essence would correspond*.

- The essence-propositions about objects, therefore, do not belong
- 20 in the phenomenology of knowledge, so far as they are objective truths and, as truths, have their place in a truth-system in general. The geometric axioms belong to geometry, not to phenomenology. But, on the other hand, *in a certain way all theoretical axioms belong in phenomenology*, namely all categories of objectivities belong in it.
- 25 Again, objects belong in object-fields, and belonging to every category of objectivity is a field (spatiality, temporality with its configurations, quality, etc.). But, all objects also belong in knowledge; they are constituted in knowledge. So far as knowledge is studied in its essence, the how of the constitution is also studied for each object category.

- 30 If I unfold what belongs to the essence of an object of any category in general and what holds of it, if I state axioms for objectivities of any category, then this can: (a) take place in the interest of the knowledge of these objectivities, then I practice objective science and objective ontology; (b) or, I do this in order to study the cognitive
- 35 formations belonging *a priori* to these objectivities, i.e., to this

²⁶ Here, consciousness is equivalent to “inwardly perceived” experiences.

theoretical state of affairs, then I practice phenomenology of knowledge or theory of knowledge.²⁷

There, the correlation between cognitive object and knowledge is therefore studied, knowledge in terms of its essence is studied, on the strength of this correlation. Likewise, one can study the valuating experiences in their relationship to value, experiences of wanting in connection with what is wanted.

One can, then, though, it seems, study experiences in general without regard for the objectivities to which they relate. Is everything “experience” (meaning, everything graspable in immanent perception) either intentional experience or fastened in intentionality, analogously to the way, say, sensation-experiences have their function as “representatives”? Does everything have its objectifying function? *Does the phenomenology of knowledge, therefore, embrace the whole of phenomenology?*²⁸

I say phenomenology of knowledge. We indeed separate things and values and requirements (oughts from wishes). But, are these not categories of objects in the broadest sense (i.e., of “individual”, singular objects)? We are wont to contrast knowledge, feeling, volition. To knowledge belong the “theoretical objects”, to feeling, the value-objects, for example, esthetic objects, to willing, the practical objects, especially moral duties. Perception belongs in the theoretical sphere, sensation, apprehending. Indeed, though, is something beautiful as such not given in a certain sense? Do I not see a duty as such? I perceive not only the landscape (as thing), which is beautiful, but also beauty. I do not only think of the deed that I want to perform, but in so doing I perceive that it should be.

²⁷ Every objective truth truly prescribes a rule for the consciousness in which the objectivity concerned is constituted. And, there the theoretical truths naturally have a superior meaning.

²⁸ Important problem: All that is fine. But, why is there not an essence theory for perceptions, judgments, etc. such as there is for spatial quantities, numbers, etc., a theoretical *a priori* science? Or, where would such a thing be? Are cognitions objects that can be studied essentially as well as other objects? I still sense problems there. But, are they not simply solved by the fact that only such essence-genera make a “geometry” possible, a deductive theoretical science particularized in mathematical form as “manifold” in the mathematical sense? This explains the possibility also of (no longer pure) color geometry, because colors precisely form a manifold.

One will, therefore, have to say: *It is a matter of different objectivities, i.e., of objectivities of different "categories",*²⁹ that are constituted in fundamentally different ways. Of course, there, one may not have the Kantian concept of knowledge that relates to things beforehand.

5 Must one not place side by side: object as actual, real, object as beautiful, object as supposing to be for the will. But, then, I still remain in knowledge. Many big problems are, therefore, there.

One could remark here: All objects are constituted in knowledge (i.e., all singular objects; we naturally leave general ones out of account).

10 *APPENDIX V: <Transcendental Phenomenology <as the> Science of Transcendental Subjectivity and of the Constitution of All Objectivity of Knowledge and Values in It>*³⁰

The *Logical Investigations* let phenomenology pass as *descriptive psychology* (though the epistemological interest was decisive in them). 425

- 15 One must, though, separate this descriptive psychology, i.e., understood as empirical phenomenology, from *transcendental phenomenology*. Descriptive natural science is description of concrete natural objects, natural processes, and so on. Descriptive psychology is, therefore, limited in this sense, not merely to psychological experiences, and
- 20 their content to the content of kinds of actual consciousness-processes of experiencing human beings and animals, but a descriptive, experiential description of associating types, of temperaments, characters, etc. would also belong there. What was called descriptive psychological phenomenology in my *Logical Investigations* concerns, though, the
- 25 mere sphere of experiences in terms of their real (*reellen*) content. The experiences are experiences of an experiencing I, inasmuch as they are empirically related to natural objectivities. For a phenomenology that aspires to be epistemological, though, for an essence-theory of knowledge (*a priori*), the empirical relationship remains, though, ruled
- 30 out. In this way a *transcendental phenomenology* arises that was genuinely the one that was realized in fragmentary form in the *Logical Investigations*.

²⁹ Now: domains.

³⁰ Presumably summer 1908 (Editor's note).

In this transcendental phenomenology, we have then no dealings with *a priori* ontology,³¹ none with formal logic and formal mathematics, none with geometry as *a priori* theory of space, none with *a priori* chronometry and kinematics, none with *a priori* real ontology of any kind (thing, change, etc.).

Transcendental phenomenology is phenomenology of the constituting consciousness, and consequently not a single objective axiom (relating to objects that are not consciousness) belongs in it. In it belongs no *a priori* proposition as truth for objects, as something belonging in the objective science of these objects, or of objects in general in formal universality. The epistemological interest, the transcendental interest, does not aim at objective being and at laying down truths for objective being, consequently, not at objective science.³² What is objective belongs precisely to objective science, and what objective science still lacks for completion is its affair to obtain and its alone. *Transcendental interest, the interest of transcendental phenomenology, aims rather at consciousness as consciousness of objects.* It aims only at “phenomena”, phenomena in the twofold sense: (1) in the sense of appearance in which objectivity appears and (2) on the other hand, in the sense of objectivity merely considered insofar precisely as it appears in appearance. Namely, “*transcendental*” to the exclusion of all empirical positing, as correlate. This is not to say that the special interest of transcendental phenomenology does not lie in the theoretical concepts and laws to which the sciences are subject, or in the objective categories and the categorial-ont <ological> laws. 426

Every perception places an object in view, brings it to self-givenness in the now. Every fantasy calls an object intuitively to mind, etc. *a priori*, what belongs to the essence of the object can be stated as it is visualized there. There, in that perception. At the same time, though, the *a priori* lies in the essence of this (species) perception, while the absolute *haecceitas* is in general undeterminable, and every statement to be made about this perception in the singular sense is grounded in the essence of this perception in the specific sense. The thisness does not really bring any content with it.

³¹ Compare P Bl. 10 <above Appendix B IIIc>.

³² About this P 10 f. <Comp. above Appendix B IIIc>.

A priori, judgments can be made about these perceptions, presentations, etc., i.e., be stated about them that they present objects of such and such a nature in conformity with their essence. There is *a priori* knowledge, therefore, in relation to consciousness-formations of such and such a nature with respect to the objectivity that presents them: namely that an objectivity is presented in them and that in their “meaning” such and such thing is to be determined; that these qualities or others are attributable to “their” object, to their object, to this perception, to this presentation. (And, the individuality, the *haecceitas* is always irrelevant, therefore, we remain in the essential.) And, on the basis of these particulars, we can grasp evident generalities, like thing-perception in general (or also, visual thing-perception, and so on) with the correlate thing in general, etc.

Naturally, a *science is not possible that is a matter of the ultimate specific differences of these kinds of knowing*, namely describes, scientifically fixes them, and is a matter of the objectivities belonging to its essence as what is given, referred to as such therein. These ultimate differences are not to be fixed any more than the absolute, individual, particulars are to be fixed.

However, we can scientifically deal with the universal essence of perception and of the different kinds of perception and thus for all kinds and varieties of configurations of consciousness. And, with the universal essence of different categories of objects, so far as they are perceived, thought, “conscious” in the constituting configurations of consciousness.

To be noted in this respect is: With respect to a kind of perception, we can describe what it perceives an object as (what kind, in what state, of what category, etc.), what it considers the object as, what it refers to the object as. That is describing the perception’s “meaning”. Likewise, its “meaning” (which here is not something appearing) in a symbolic presentation.

It belongs evidently to the immanent essence of an act for it to refer to an objectivity, for it to have a “meaning”, and for an evident way of judging to be possible that “describes” the object referred to as such. However, this predication on the intentional object as such is not a description of the act in the meaning, as if <a> component of the act were enumerated. It also becomes evident that the same object <can> be intentional in different acts, that in this sense, different acts

can have the same meaning. These intentional objects, these “meanings”, are not “realities”, not true objects. We are not talking about truth and falsehood, being and non-being here (being in the sense of truth). No more than talk of veritable values is about actual things (in the sphere of reality). If we then enter into authentic “knowledge”,
 5 into the “teleological” relations of the act from the angle of validity and invalidity, then we come upon veritable being as regards the different categories of being.

The essence-theory of physico-real being (concrete being, being
 10 in the sense of physical nature) is pure natural science. While we perform the acts in which we perceive or intuitively present things, while we are considering what belongs to such things when they are to be able to be proven to be actual, and in so doing, we try to understand all the kinds of proving thought processes (experience
 15 them actually or in a modified way), we see the *a priori* propositions concerned without looking at the “constituting” acts and phenomena and making them into objects of investigation. A step further and we engage in reflection. We know that belonging to the essence of the thing-objects, so far as they are veritably able to be, are not only
 20 these truths or others, but that it belongs to them to be apparent in one manner or another, to show themselves in some proving acts or others, that where acts are meaningfully directed towards them, only then can they veritably be actual objects, when the acts can be fit into one fulfilment-complex or another, etc.

25 To elucidate these connections between veritable being and knowing and so in general to investigate the correlations between act, meaning, object is the *task of transcendental phenomenology* (or transcendental philosophy). If we are not interested in the transcendental task and we remain in pure theory of meaning and being, then we practice logic,
 30 natural scientific ontology, pure theory of space, etc. These need not concern themselves at all with cognitive formations, with consciousness. Likewise, if we practice ethics as pure ethics (or logic of morality), esthetics, or logic of esthetic appreciation, axiology or pure logic of values.³³ Yes, I do well to leave out the relationship to the acts here. Just

³³To be separated are formal logic (formal ontology) and material ontology, formal logic and mathesis in the narrow sense and in parallel fashion also formal ethics and axiology. Why is this not taken into consideration in what follows? Formal and pure are not the same.

- as corresponding to knowledge of reality is natural science, and real ontology is the specific logic of natural science (pure natural science), so corresponding to ethical behavior is the idea of a thoroughly morally behaving personality and a thoroughly moral human, individual and social, existence, idea of a proper state and a proper community: an idea that is not as objectified and developed as science. But, perhaps one can say, corresponding to nature as to the unity of veritably existing things and as correlate of knowledge of nature (“theoretical”, sensorily objectifying) is the ideal (full) human community, the ideal state, as the correlate of practical knowledge as knowledge of practical “being”, namely of what should deliberately be. Just as, then, the logic of nature (or natural science) is real ontology, so the logic of the ideal state or of the ideal world government as a system of cooperating ideal nation states (or the science of the ideal state) is pure ethics. The parallel ideal in the sphere of values is the ideal of a valuable existence (ideally valuing and valuable human beings aimed at an ideally valuable nature accommodating their values), and the logic of this ideal is pure axiology, and for ideal-esthetic existence, pure esthetics.³⁴ We can also call all these logics ontologies. Ontology of nature, ontology of minds, ontology of ethical personalities, ontology of values, etc.

- Belonging to all of them are transcendental phenomenologies.* The valid objects of different categories, the objects of these ontologies, are investigated in relationship to types of consciousness (acts) essentially belonging to them, i.e., transcendently investigated. And, it becomes necessary to investigate the meaning sphere, the presumed objects as such, of the acts of different kinds and to place meaning and veritable object in the proper relationship.

- What is the object of a sense perception perceived as? What kind of existent is it described as being in the perceptual judgment? What is it determined as in natural scientific thinking? The true object as “appearing” in such and such a way, as merely presumed in such and such a way, as opposed to actually determining itself in such and such a way in the systematic work of science, in demonstrating thinking. Those are already investigations of the transcendental layer.

³⁴I have not held on to this passing notion that perhaps was colored by individual reports of a series of ideas of the Marburg school.

Everywhere, it is a question not of bringing the different “cognitive-
 formations”, the different features of the consciousness, to the fore in
 an arbitrarily disconnected way and investigating transcendently with
 respect to their meanings, but rather the highest goal is the understanding
 5 of veritable being in its relationship to consciousness. And there, the
 teleological connections of the consciousness must be attended to.
 Parallel distinctions recur in all main fields. First, as the lowest stage,
 the “mere” perceptions, and then in general the mere “positing” acts
 (and their modifications), in which the “existent” is directly given,
 10 figures as directly grasped. Additionally, the possibilities of conflict
 between such acts, the suspension of positing, the negation of positing,
 and so on. Then, the stages of such perceptions, the perceptual mani-
 folds, and what corresponds to them in the parallel fields, the empty 429
 intentions, etc. Then, the “thinking” that, on the basis of mere intuition,
 15 works out the true existents, the true nature, the true value, the true
 state, etc. as correct thinking.

Starting with the different existents, we can always ask the other
 way around: How is such an existent given? How can it be given as
 the existent of a category of this kind? And, to what extent is it at
 20 times imperfectly given? How does it arrive at full givenness, and to
 what extent is absolute givenness an infinite task?³⁵ And, how does
 thinking think the existent and determine it on the basis of imper-
 fect givenness, and to what extent is the process of determination
 in turn infinite and ever incomplete, to be revised over and over, or
 25 circumscribed more precisely, and yet in the infinite process pro-
 duces “approximation of truth”? Is that accurate merely for objects
 of nature? Or, also for objects of valuation? Yes, those are already
 problems situated on too high a level.

First: Pursue the process of knowledge step by step and describe
 30 and make known as such the necessary stages by means of which the
 intentional object (in these different stages of positing) progresses
 toward the true object.³⁶ (In doing so, truth, veritable being in the
 sense of the different reality sciences will be taken into considera-
 tion, for example, truth and being in the sense of the morphological
 35 sciences, of descriptive natural history, biological theory of evolution,

³⁵Transcendental clues.

³⁶That is determined by means of the objects themselves.

and so on, and being in the sense of “abstract” physics.) Naturally, the issue concerns all kinds of objectivities and the constitution of states of affairs, therefore, the axioms stated in the principles. Everywhere, the problem is that of the “constitution” of objectivity of every kind
 5 in transcendental “subjectivity”, in the transcendental consciousness, transcendental “I”.

A reflection is required: Can one reasonably constitute a science of one’s own that would have to do with the *a priori* relationships between the different types of objects and the knowledge related to
 10 them and to the corresponding types of knowledge (types of presentations, etc.)? For example, the fact that therefore, in accordance with its essence, a thing is given in “sensory perception and, then, only from the front, and so on. The next step is transcendental phenomenology that throughout presupposes investigations of the kind
 15 just indicated and pursues them further in the sense that it studies the form of the perceptual contexts in which a thing step by step comes to givenness and thoroughly investigates the essence of all of these “transcendental subjective” phenomena, and in so doing explains that the thing is nothing apart from these phenomena, but that correlation
 20 to being, therefore, necessarily belongs to their essence.

One could say that “presenting-an-object” belongs to the essence of intentional phenomena. If one studies them, therefore, and their interconnections, one comes to that whole *a priori* that then for its
 25 part as implying transcendence presents the problem of looking in immanence for the source of the transcendence revealing itself in immanence: therefore, going back to the “unity” of consciousness. 430

Essence-analysis of all phenomena in the sense of actual data of “consciousness” belongs in phenomenology therefore.³⁷ And with that, everything *a priori* belonging to the consciousness-
 30 object relationship belongs in it, and finally all transcendental inquiry into everything *a priori* in general.

Whenever there is talk of consciousness, one is always concerned with “the subjective”. One inquires into an external object’s way of being given and comes to “phantom” (sensory appearance), to appearing
 35 in shape, appearing coloring, etc. In addition, to “sensation-color”,

³⁷ But, what does “data of the consciousness” mean?

sensation-diffusion, etc., or to the unit “statement” with “the referred to as such”, to the unit “the” judgment that is stated in the statement. To the stated, judged state of affairs as such, etc. In doing so, one also comes to acts, acts of referring, of judicative referring, of presuming, of wishing, etc. Finally, one comes to time consciousness as the last thing. Between it and the object posited, and justifiably posited, in knowledge lies a series of “ideal” objects. We could say of meanings in the broadest sense and of “appearances”. The object known is perceived, i.e., over and over, “differently perceived” and remembered.³⁸ We have here, therefore, a manifold of “appearances” that belong together in a certain way. And, in this, in turn, appearances in the narrow sense and things referred to going beyond them. The appearances form an ideal combination, but independently of other such combinations, of such manifolds. “Visions” stand out, not identically with the “real”, but making up a “layer” of the constitution of reality. *Phantoms, visions, appearances of every kind belong in the sphere of “transcendental subjectivity”*, in which the sensation-contents also belong and specific “consciousness”, apperception, and everything essentially belonging to it, attention, etc.

20 *APPENDIX VI: <The Difference Between Logical and Epistemological Clarification>*³⁹

The goal of *clarity and distinctness*. Tracing back from muddled presentations, concepts to clear ones, tracing back to Evidenz: (1) with a logical *aim*, aiming at logical perfecting, highest ideal logical perfecting of science and (2) with an *epistemological aim*.⁴⁰ 431

ad 1a) For example, I want to make clear to myself what “thing” means, what belongs to the “content of the thing-concept”. There,

³⁸The individual perception has a “perceived object as such”. Several perceptions can presumably have the same object as perceived. In a continuity, it can clearly be the same sense.

³⁹From September 1908.

⁴⁰(1) Clarification as logico-methodological clarification of concepts and (2) elucidation of the essence of knowledge equivalent to the study of the essence of knowledge as such.

I must trace back to individual cases of the concept. Example of a thing, namely, back to the case of thing-givenness, that is first of all back to perception.

- b) But, is the thing “really” given in that? Indeed, perception is
 5 an Evidenz, but imperfect, incomplete. I ask to what extent it is sufficient. Or rather, I ask practically, what is given to me there of the thing. I proceed further to a full Evidenz, I trace back to a perceptual complex and in general to the action of various perceptions and perceptual complexes in which the thing “shows” itself in terms
 10 of its different parts, characteristics, objective moments, therefore, comes to givenness. More precisely: I trace back to the perception (“impression”, says Hume), meaning, I position myself perceiving, I fantasize, and (intuitively) try to fathom perceiving. I now engage in this fathoming of the act-complex, look at the appearing object,
 15 and continually ask what is given of it.

- I then realize generalization, thing in general, something of this kind. I “see” what belongs to it in the generalization on the basis of givenness, which is realized to the extent that I can behold the essence of the thing-unit and everything that belongs to it in authentically realized consciousness of generality, or have in sight the fully
 20 realized meaning of the word thing. Naturally, the description that we have realized here goes back reflectively and thematically to knowledge, grasps it with noetic concepts that may be determined by means of reflective investigation.

- 25 In the actual clarification procedure, it is enough just merely to say: A thing is given to me there (in the perceptual complexes fathomed), what does a thing in general then mean, something identical, having spatial extension, remaining self-identical in its combinations, etc.? The essence of thing in general is clearly given to me there, and
 30 there I find it evidently as one thing or another. Likewise, if I want to clarify what belongs to the meaning of an existential judgment, of a universal judgment, etc. and want to distinguish different concepts that these expressions designate (in different contexts), I make these contexts clear to myself, go back to examples, and from empty presentations to clear ones, so that I can “see” it.
 35

Of this clarifying is to be said that it has noetical-logical goals. *It is the great concern of the ultimate substantiation of the sciences.*

This requires making the foundations and methods absolutely evident, 432

the ultimate determination of the basic concepts by means of their elucidation, the ultimate establishment of the basic principles, i.e., of the basic principles of every science (kind of science) and of the methodological (specifically logical) principles that eliminates all
 5 confusion, every subsequent false interpretation.

It is questionable whether the excesses of the metaphysico-epistemological interpretation of the sciences and of logic would have been possible with full clarity in the foundations, with maximal scientific perfection of sciences. Every science (or, scientific researcher)
 10 engages in clarification where the need for logical perfection arises. In the greatest researchers, this exigency is often sufficiently manifest. The development of the sciences has, of course, shown that very much fruitful work can be accomplished, and science can make considerable progress, without ultimate clarification. Nonetheless,
 15 in correspondingly high stages of development, the ideal of ultimate perfection must arise within the sciences themselves, as it can, on the other hand, be said that logical reflections have come in, and had to come in, over and over, both at the beginning and at decisive turning points. As ever, this ideal of ultimate clarification and substantiation, the noetico-logico-ideal, which for its part refers back <to> fully developed logic and fully clarified logic, is an ideal of objective science—without which it cannot veritably be of full value.

The following is to be heeded in this regard: There is an unreflective, unselfconscious clarity and a reflective one. Having Evidenz and being
 25 conscious of Evidenz are two different things. And, better still: It is not enough to have Evidenz occasionally at one time and <to> draw upon it. It is, therefore, not enough <to> have concepts and arguments (proofs) that are to be made evident because drawn at one time from the wealth of Evidenz. Rather, considering the role that confused, half clear, empty
 30 presenting and thinking plays, considering the fact that, in one respect, Evidenz is commonly linked with confusion, in other respects, becoming meaningful and influential later, <with clarity>, *it is necessary everywhere to work completely consciously "to trace back to Evidenz"*. That means, though, that having Evidenz is not merely a question of people's
 35 doing that, but of their testing their thought-intentions, their conceptual presentations, their judgment-thoughts, etc., and making sure what can and cannot be ransomed of them in terms of Evidenz, and of realizing the corresponding theoretical logical modifications.

It is not a question of naive clarity, but of clarity and fulfilling of “opinions” of the moment by clarity, making sure how far possible givenness actually corresponds to the opinion held, and it is a question of the predisposition to carry out the proof of the clear meaning at any time. I mean that it can be “random” that concepts permit their ransoming, but in the same way, that others do not. Genuine science must be of such a nature that all foundations surely permit this and that they have grown out of clarifying work determining in the fulfillment of their meaning.

It is, therefore, a matter of method and logic. Scientists must be fully certain of the rigor and soundness of their methods. They are the ones who, when they have full clarity and with it make sure that they are really orienting themselves towards givenness, distinguish where givenness begins and stops and let nothing pass as givenness. *They have the greatest clarity, apodictic Evidenz when, in all their methods, they go back to the noetic essence-theory and can have the Evidenz that universally proceeding in this manner, is proceeding in an evidently well-founded manner.*

The ideal of objective science is its noetic-logical consummation, is the logical ideal (the noetic ideal). A science has made progress to the extent it is an ideally rigorous science, to the extent consummate knowledge of its field has been attained, and in this respect no more remains to be desired.

<ad> (2) *Epistemological* “clarification” is something essentially different vis-à-vis logical clarification and its goals. It does not at all aim at the consummation of the sciences, but at the “possibility of knowledge”, at the question as to how knowledge’s relationship to transcendental objectivities is to be understood, how the regulation of knowledge by logical laws, and so on. These are problems obtaining just as well for an ideally complete, logically absolutely consummate science as for an imperfect one.

The task of clarification here is not one of tracing back to the Evidenz of the method and the matter at hand (*Sache*) and making sure of the full givenness, but it is a question of clarifying the relationship between knowledge and objectivity, of bringing this to evident givenness in all its configurations, therefore, of studying in Evidenz the relationship of Evidenz and what is given in it. Likewise, the relationship of referring in general and what is referred to in it, etc.

Now, one will indeed have to say that in logical clarifying from the matter at hand to Evidenz, and from Evidenz to the matter at hand that is evident, we also go here and there comparing, again in Evidenz. Therefore, we have an Evidenz of the relationship between Evidenz and matter at hand. However, huge differences are surely there. For logical clarification, I say to myself: The matter is evident to me, and more precisely, this and that about it are increasingly completely evident to me, so far as I need it so as to have given what I refer to there. Studying the essence of givenness is, though, something else, for example, making appearances of series of perceptions and their interconnection, their moments, interrelationships, into objects of scientific investigation. Or, analytically and abstractively grasping and bringing under new theoretical concepts the symbolic consciousness, the manner in which “signs” appear in it, its meaning, etc.

15 *APPENDIX VII: <The Order of Levels of Categorical Theories and Their Mutual Dependency. The Task of a Systematic Construction of the Entire Formal Mathesis>*⁴¹ 434

The formal discipline of propositions in general and that of concepts in general is a mathematical discipline and, as such, is of precisely the same nature and uses the same methods as the mathematical disciplines familiar to you, for example, arithmetic. What is mathematical in the procedure of arithmetic and the geometrical disciplines does not hinge upon our having to do with numbers and quantities in them. Chance historical development brought it about that pure mathematics was first established within the sphere of numbers and quantities, and for that reason we developed the habit of thinking that for us what is mathematical and quantitatively determinable are identifiable. The essence of the mathematical does not, though, lie in the quantitative, but in the establishment of a purely apodictic foundation of the truths of a field from apodictic principles. Upon this hinges the entire form of the procedure, upon this the fundamentals of the methodology.

⁴¹ From *Logik, Vorlesung 1902/03* (Dordrecht: Kluwer, 2001, pp. 23–39) (Translator’s note).

Only the completely unfounded prejudice that the essence of the mathematical lies in number and quantity explains the attitude of rejection on the part of modern logicians toward the mathematical theory of conceptual and propositional inferences that was first developed in this century. Mathematical treatment of inferences does not mean reducing them to mathematics in the usual sense, but means no more and no less than a rigorously scientific *a priori* theory building itself from bottom up that rigorously deductively derives the manifold of possible inferences from axiomatic foundations in an *a priori* manner. The possibility of calculational treatment is connected with this.

There is nothing extraordinary at all about the fact that one can calculate with concepts and propositions, if only one is in general clear about what calculating really is. Let us consider the field of numbers. What is characteristic of calculating in it? Obviously, that in order to perform any thought process with numbers, to solve, say, an equation, or to find a square root, and so on, we do not have to think about the concepts themselves at all, but by using certain procedures defined beforehand by set rules, can be content for that to connect signs with signs, to substitute given combinations of signs by other combinations of signs, etc. In the end, a certain combination of signs ensues that we call the result. It namely has the property of expressing a proposition that states the solution of the problem when we make the transition to the corresponding meanings.

The possibility of calculating obviously rests on the fact that all concepts are symbolized by exact, distinctly different signs, that all conceptual connections have their signs of connection, that no connection in the form of a proposition is then realized with these concepts that is not fixed in universal form, in the form of an axiom. In that case, complete parallelism obtains between concept and sign, between conceptual-connection and -combination, on one hand, and a sign-connection and -combination, on the other. If the axiom $a + b = b + a$ says that the sum of an any number b and any <number> a equals the sum of the same number a and the same <number> b , then a purely symbolically operational proposition corresponds to that. One may replace the combination of signs $a + b$ by the symmetrical $b + a$ at all times. In this way, rules of the game, so to speak, rules for operating with symbols come from propositions. And, with the parallelism set up between thinking and operating symbolically, no

<other> symbolic result can come about than one having a meaning. For, only those operations have been symbolically axiomatically allowed that are expressions of axiomatic thoughts. Naturally, an analogy becomes possible everywhere one proceeds purely deductively and establishes all steps in reasoning by axioms and chooses distinctly different signs, therefore, also in our field.

- Syllogistics seems to be the most fundamental discipline. It belongs to the essence of every proposition (or, if you wish, judgment) to hold concepts. Therefore, by searching for basic truths in the idea of concept in general, we hold the most fundamental class of *a priori* and categorial truths. Inasmuch as arithmetic is composed of judgments, it also holds concepts, concepts of a restricted sphere. And, in its inferences, it will inevitably also have to apply ones that are syllogistic in nature, that do not just hold for number concepts, but for concepts in general. Of course, the same holds of syllogistics itself. In that it sets up propositions for concepts in general, it operates with determinate concepts, and in that it makes inferences, these inferences are subject to the laws that <it> itself first sets up. This is inevitable. That this is not circular, though a problem in the development of the theory, we will have to comment upon more specifically forthwith.

- Let us now consider, though, the propositional inferences that are valid in the idea of proposition in general. These too are obviously fundamental in nature, i.e., precisely just as fundamental as the inferences that are grounded in the idea of the concept. Every inference depends on propositions. Generally, the content of the propositions will be drawn upon here. The terms will lie in them. It may, though, also be, and it happens often enough, that the propositions are the terms themselves, that the inference remains valid no matter how we vary the propositions. Obviously, this kind of inferring is the most universal of all in terms of its applicability. There is no material and no categorial field of science in which these inferences could not occur and even would have to occur. Syllogistics cannot dispense with them either. That is manifest in examples. If in the theory of syllogistics, we have proven that, for example, a syllogistic law *A* follows from another one *B*, and the latter from a third one *C*, then we infer that *C* follows from *A*. That is obviously a special case of the law that transitivity obtains in the realm of propositions in general.

It is clear that this law is indispensable wherever we want to infer. The same is the case with *modus ponens* and *tollens* and many other 436 forms of inference.

- 5 With regard to the clear indispensableness of purely proposi-
tional forms of inference of this kind for every theoretical field, it
then seems obvious that the theory of these inferences, or better, the
theoretical disciplines of the truths grounded purely in the idea of
proposition in general, constitute the starting point of all categorical
disciplines in general (therefore, must precede syllogistics too).
- 10 Still, however, misgivings arise about the fact that in such a theory
that deals with propositions in general, specific propositions will occur
that as such will have their subject concepts and predicate concepts.
Inferences will accordingly occur that are grounded in the concepts and
among them those in concepts in general. Actually, we would not have
15 made any progress were we not allowed to make the inference from
universal to particular, inference that of course belongs in the syllo-
gistic sphere. Here too, the problem furthermore arises that was upset-
ting in the idea of a syllogistics, namely, whether such a propositional
theory may not require a kind of circle. If propositional inferences, for
20 example, *modus ponens*, are required in every discipline, then also in
the propositional discipline itself. In order to be able to substantiate the
theoretical justification of the propositional inferences, we would have
already had to have the theory, the same theory that we first wanted to
derive. Those are noteworthy problems and they concern not merely
25 the spheres of syllogistics and the propositional sciences. *Mutatis
mutandis*, they concern all categorical theories in general.

- At first, it seems clear that the theories that are grounded in cat-
egorical concepts, therefore, the different branches of the *mathesis
formalis*, would have had to be constructed in stages. Lowermost,
30 say, the propositional, then the conceptual mathesis, then the theory
of the indefinite sets with their intricate relationships (Schröder's
identity $C < \text{alculi} >$), then the theory of cardinal numbers or, as
mathematicians say lately, the theory of powers, the theory of ordi-
nal numbers (ordinal types), etc. Right from the beginning, we see
35 that that does not work. The independence of the theories that is
presupposed by the construction of stages outlined does not obtain.
And, it is not just that the propositional and syllogistic theories
mutually require one another. They require even more, for example,

the theory of cardinal numbers and the theory of ordinal numbers. It would suffice here just to stress the following: If we want to set up, for example, a completely universal and exhaustive theory of syllogisms, then we must also formulate the universal cases. We may not restrict ourselves to two premises. We must admit arbitrarily many, likewise arbitrarily many variable terms. Then, though, it is clear that we cannot dispense with the great device of mathematical inference. I am referring to the inference from n to $n + 1$. This presupposes the idea of series, namely, the “well-ordered series of type ω ”, and by all means belongs in arithmetic. It is also clear that we shall perform combinatorial operations that we shall, therefore, have to apply theorems of combinatorial analysis, etc. It might almost seem that every categorical theory must presuppose every other one! A very desperate situation. Well, it would only be desperate, though, if really just in order to be able to begin, propositional theory, for example, would have to presuppose all of conceptual theory, and conceptual theory all of propositional theory, and in the same way all of arithmetic, all of combinatorial analysis, etc. The dependency of fully developed theories does not mean the dependency of every proposition of one theory on the whole other theory, and even on all other theories as wholes.

And consequently, it becomes understandable that we can hold fast to an ordering of stages of theories despite their mutual dependency. The following situation seems yet possible: Belonging to the categories as primitive categorical concepts is a limited number of axioms that are independent in relation to one another. The axioms then ground different theories as consequences that, if not as a whole, then to a considerable extent, are independent of one another. The most fundamental portions, or groups of theorems, will be those that have to be formed so that in general theoretical operating could proceed. Those will obviously be portions of the conceptual and propositional theories. These are then, of course, not complete, not to be formed in the fullest universality and completeness without drawing in propositions from other theories or inferences whose regulatory principles belong within other theories. But, perhaps these are axioms of other theories and perhaps laws that for their part only require the lowest stage of the formation of those propositional and conceptual theories. In short, a systematic structure becomes conceivable that develops

the theories in stages, but not every discipline completely as a separate discipline, but a construction of stages that contains parts of the different categorial disciplines as stages, so that all these disciplines are developed with one another in parallel fashion and interpenetrate
5 in their higher development.

With this a specific, extremely important problem is indicated, a problem that has not yet been formulated, let alone solved. It is a question of the systematic construction of the sum total of categorial theories or, since all these theories prove to be interdependent, of a
10 comprehensive theoretical discipline increasing in rigorous systematization that develops the total wealth of our *a priori*, pure categorial knowledge in ordered succession. Were this problem of a complete, logically consistent mathesis solved, then in the sum total of axioms of this science, we would have a complete, most simple description of
15 the pure understanding as “faculty” of pure thinking. What belongs to the idea of thinking in general, what thinking accomplishes independently of the special thought-matter, and how it makes theoretical unity in general possible would lie spread out before us in a series of pure, i.e., free of all matter, basic principles. In them would be included the
20 entire system of laws that gives unity and possibility to the idea of theory in general as regards its categorial form. And, the systematically developed overall mathesis based on these axioms sets before us the inner organization of the realm of laws that completely encompasses 438
all valid forms of pure thinking and that precisely in so doing confers
25 upon materially determined thinking what, in this case, we call its formal exactness, its formal rigor, and logical consistency.

To attain this goal, problems not trifling in nature that already accumulate with the very first steps are to be overcome. Certainly, we may and must assume that the beginning of a systematic construction of the pure mathesis must start with pure propositional and pure conceptual theories. Since, all thinking in general is carried on in propositions, and every proposition contains “concepts”, the laws must, therefore, and we have already said this, be of the most fundamental kind that state what holds for propositions in general,
30 completely irrespective of the scientific field to which they may belong, and further say what holds of concepts in general, or what holds for objects in general so far as they come under concepts belonging to some scientific field, no matter which.

- Let us then begin, say, with propositional theory as the one that by its very nature is primary, and let us assume we had found axioms in the form of directly evident, primitive basic principles independent of one another, then pure deduction supplies us with theorems, and ever new theorems, and so the discipline of propositional truths develops. That seems perfectly simple. But, we may not proceed so naively, not here where it is a question of the deduction of legitimate forms of purely logical thinking. While everywhere else, we may trust in the natural train of logical thinking and of the Evidenz inherent in it without giving an account of the forms of inferences that step by step come into use there, the case here is entirely different. The basic laws we start with are in our case, principles of possible inferences, the derived laws are once again laws of inference, and the derivations themselves are inferences that as such, if they are in general correct, have a law-form, therefore, must have their principles in laws of inference. What if, then, we would deduce a law of inference in such a way that the law underlying the deductive procedure were itself precisely the law to be derived? ($A \rightarrow B$, F has the form B). One can certainly not say that this is an ordinary circle, by which one really understands the case that the proposition deduced was covertly presupposed as well in the premises. On the other hand, something like a circle is present. Implied in the meaning of a systematic theory of inference is that to start with we adopt the standpoint that no inference is given to us as valid, but that the validity of every inference must first be substantiated. The only exceptions here are the axiomatic inferences, namely those underlying the basic laws as individual cases. With regard to all other inferences, we must, as it were, be skeptics. Only after laws are proven may we put them into effect. Therefore, we may not perform any derivation without making ourselves conscious of the law of derivation itself, and the derivation must be disallowed if this law is not yet found among <the> axioms or among the theorems proven. Not only is the circle, therefore, to be avoided in which the law of derivation that was precisely to be proven in the derivation is the same, but the law must be found among the laws of inference already previously formulated and proven. The difficulty and inconvenience lie therefore, so it seems, in the fact that, after formulation of the primitive laws of inference, we may not be satisfied with deducing new ones from them, but that at every step in

- the deduction, we must reflect upon and prove that the law of inference justifying it is already known and substantiated. One could then say that the difficulty vanishes if in the substantiating deduction, we exclusively carry out direct, primitive inferences. Every such inference is subject to a direct law, and if we really have all axioms figuring at the top in advance, then every direct inference is *eo ipso* subject to one or another of the axioms. However, how do we know that we already have all the axioms? Only reflection on the form of each step can assure us of this. One thing is clear. Fundamental theories of categorial laws must satisfy the condition that every step in the inference be subject to principles fixed in the axiomatic foundations or already proved as theorems in the meantime.

*APPENDIX VIII: <Draft of a Letter of September 28, 1906
to Hans Cornelius>*

- 15 Dear Colleague,
- I thank you most warmly for kindly sending an offprint of your “Psychologische Streitfragen”,⁴² as well as for the exceptionally friendly and personally gratifying lines with which you accompanied the mailing.
- 20 I hoped in my response to the content of your discussions to be able to take a stand at once, but soon saw that I must, however, first await the planned sequel and otherwise study your *Psychologie*⁴³ afresh. It came as no small surprise to me to hear that, in your opinion, we should essentially stand on common ground. That I have not assumed
- 25 and observed any substantial differences between your theories about sparing mental effort and those of Mach and Avenarius (all your remarks in your *Psychologie* pointed to common ground), I must admit. When I wrote the polemical comments in volume I of

⁴²H. Cornelius, *Psychologische Prinzipienfragen, I. Psychologie und Erkenntnistheorie*, in *Zeitschrift für Psychologie*, 42 (1906), pp. 401–413 (offprint in Husserl’s library, with handwritten dedication: “With the friendliest greeting from the author”). On the first page, Husserl jotted “received September 9, 1906” (Editor’s note).

⁴³H. Cornelius, *Psychologie als Erfahrungswissenschaft* (Leipzig, 1897), in Husserl’s library (Editor’s note).

the *L<ogical> I<nvestigations>*,⁴⁴ I had not yet studied your work systematically and carefully and perhaps let myself be led astray by those remarks. I am only astonished that during the half-year pause in the printing of my publication (owing to a change in publishers that became necessary in the midst of the printing), when I studied some main parts of your work more closely and inserted the polemical discussion into volume II,⁴⁵ I did not notice anything, and just as little the essential common ground with regard to methodology and subject matter. 440

10 I have begun the renewed, careful study of your valuable work, truly not lightly esteemed by me, and this will naturally require some time.

I would be very grateful to you if in the next article you were to supply proof for your assertion that among my presuppositions I included concepts and assertions of Brentanian psychology without prior verification.⁴⁶ With reference to your note 410, I would furthermore like to point out that I could not possibly owe my theory of representation to inspiration from your *Psychology*, since at the beginning of 1894 I already began to publish a series of articles in the *Psychologische Studien zur elementaren Logik* (*Psychologische Monatshefte* XXX) that was to be devoted to the question of representation (and abstraction). The first and only essay⁴⁷ published (no longer satisfying me) should have already contained as much as is in general common to us. From the continual new revisions of the sequel ultimately grew volume II of the *L<ogical> I<nvestigations>*. Moreover, I already lectured on the main ideas of the latter article in my 1891/92 course on psychology. With kindred problems, points of departure, and methods, one just arrives at kindred results. That we also display kinship in other respects independently from one another, the comparison of my *Philosophy of Arithmetic* (1891) (further reworking of my 1887 *Habilitationsschrift*) and your first article on synthesis, analysis, which if I am not mistaken appeared in 1892, should show. At least in earlier

⁴⁴ *Prolegomena*, Chapter IX (Editor's note).

⁴⁵ *Logical Investigation II*, §39, Appendix "Modern Humeanism" (Editor's note).

⁴⁶ Cornelius, *Psychologische Prinzipienfragen I*, p. 408 (Editor's note).

⁴⁷ Reprinted in *Husserliana XXII*, pp. 92–123 (Editor's note).

years I had the impression of close kinship. Moreover, I mention all that not to lay claim to anything (to my knowledge I did not do this anywhere and in any sense in my *L<ogical> I<nvestigations>*), but so as not to be liable to any appearance of unfairness.

- 5 There is indeed conscious and semi-conscious dishonesty enough, and nowhere does it find more ready refuge than in our discipline. Hence, I believed I owed you and myself this explanation.

- I am very desirous of a closer examination of the distinction between causally explanatory and genetic psychology, which I did
 10 not make in my *L<ogical> I<nvestigations>*. Since its publication, I have also become aware of the distinction, especially in connection with the problem of the explanation of the essential difference between empirico-descriptive sciences (natural history, history of civilization, etc.) and the physical sciences on the other hand. Law
 15 and explanation mean something different in each case (mechanical, electrical laws—biological laws, phylogenetic laws social laws, laws of sound fluctuation). In natural history, no transcendence is required, 441
 no atoms, ions, energy, etc. One proceeds describing, inducing, setting up laws, explaining by means of them throughout the sphere of
 20 authentic phenomenality: of perceptible, intuitively presentable things, processes, states, evolutions, etc., and their typical patterns. The historical explanation (historical in the broadest sense) is “immanent” in comparison to the “transcendence” of physical explanation. (We are naturally not speaking of metaphysics here.) The purely phenomenal
 25 explanation, including the genetic explanation, in no way coincides with the phenomenological explanation though. Phenomenological origin does not mean genesis, but displaying the intuitive sense, the authentic meaning. Never have I understood origin genetically, and nowhere in the *L<ogical> I<nvestigations>* did I wish to demonstrate
 30 a genesis. Phenomenological inquiry is not at all interested in egos and states, experiences, evolutions of, or in, egos. No more for “my” ego and *its* acts than for plants, stones, and their evolution. I myself was grossly mistaken when I identified phenomenology and descr<iptive> (immanent) psychology. For 4–5 years, I have been continually warn-
 35 ing my students against this error. All empirical existence, even that of one’s own ego, is held in abeyance in phenomenological inquiry. It exclusively yields analyses of meaning or essence. What belongs to the “essence” of the perception, memory etc., what belongs to the

- “meaning” of the relationship of “presentation” and “object”? That does not mean how it develops on the basis of our intellectual organization of some mechanism, out of which some quality, etc. proceeds. Naturally, *I* am the one that now (6 p.m.) in *my* consciousness is, say,
- 5 analyzing the essence of perception. Besides, I have in my mind’s eye some perceptions, *my* mental experiences, etc., and *I* declare: *I* find this and that. But, the existence of the *I* (of the person in space and time precisely calling himself or herself *I*) is not a presupposition of the inquiry, the results of which remain the same even if I consider
- 10 myself a centaur, or a hippo<potamus>, or anything else. Even the experiences, *intended in the psychological sense*, precisely as experiences of a human being, a hippopotamus, an *I*, this *I*, do not come into consideration in terms of their existence, but purely in terms of their content or essence.
- 15 To be able to understand the ultimate meaning of all science, knowledge, all correlation of subjectivity and objectivity, to undertake the ultimate interpretation of actual science and, thereby, to counter all charges of subjectivity (skepticism), we place all science, all knowledge, all things, all existence, *in question*. We make sci-
- 20 ence as such, knowledge as such, into a problem. As such: We want to make clear their meaning, their possibility. Science, knowledge, therefore, also their correlate: world, thing, *I*, *I* myself, time, etc. are held in abeyance. They now count only as “phenomena”. Hume would say: as ideas. I investigate these ideas as such and the relations
- 25 of ideas⁴⁸ belonging to them, inseparable from their essence (the *a priori* nature of all genuine phenomenological determination lies in this). A small change of apperceptive and existential attitude and all results acquire descriptive-psychological value. This nuance, and in 442
- 30 general the severing of phenomenological research from psychology (which since antiquity never was anything other, and never was considered anything other, than a science of the inner life of humans or animals, as a science of human beings from the perspective of their mental experiences, or as a science of mental phenomena, but nonetheless as events in objective time, in the unity of an individual,
- 35 relating to physical processes, etc.), is the precondition for the possibility of a radical, genuine critique of r<eason>. On the other hand, a

⁴⁸“relations of ideas” is in English in the original (Translator’s note).

good deal of descriptive psychology overflows into phenomenology (useful for the critique of reason), just as the “phenomenological reduction” is undertaken, or to the extent it can be undertaken.

- English psychology *is* psychology and English theory of knowledge on a psychological basis is the worst psychology. But, in Locke and Husserl lie, unbeknownst to them, pieces, beginnings of genuine phenomenology, insofar as they provide remarks that are very easily purely and radically to be set free of all outward appearance of natural science, of empirico-existential associations. On the basis of my knowledge of English psychology, it is completely incomprehensible to me how you can believe that from the start this was phenomenology in my sense. If not expressly called science of human beings, are not the Lockean inquiries called inquiries into human understanding? And, by no means simply in the title.
- However, I have gone into too much detail. Unfortunately, I must time and again bewail the fact that my reflections on the meaning of phenomenology in the introduction to my *Logical Investigations* (and Investigation V) express so very unsuitably the true meaning of the investigations and their true method. My publication of the lecture courses held on theory of knowledge given since 1902 will succeed in redressing the situation.⁴⁹

*APPENDIX IX: <Personal Notes from September 25, 1906,
November 4, 1907, and March 6, 1908>*

- These “Personal Notes” were translated by Dallas Willard and published in his translation of Edmund Husserl’s *Early Writings in the Philosophy of Logic and Mathematics* (Vol. V of Edmund Husserl’s Collected Works) (Dordrecht: Kluwer, 1994, pp. 490–500).

⁴⁹ Upon Ullrich Melle’s advice, the version of this letter printed in volume II of Husserl’s correspondence, pp. 25–29 has been used as authority (Translator’s note).

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