

William L. Rosensohn

The Phenomenology
of
Charles S. Peirce

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THE PHENOMENOLOGY OF
CHARLES S. PEIRCE:

From the Doctrine of Categories to Phaneroscopy

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Charles S. Peirce:
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by

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To Marvin Farber

FOREWORD

To trace the development of Peirce's phenomenology from a doctrine of Categories to the ground on which philosophy and science rest is the purpose of this book. Although parallels with Husserl's thought are inevitable, it has seemed proper to this writer to emphasize the growth of Peirce's own ideas and the scientific-philosophical background out of which they emerged. Thus Peirce's most original contributions, viz., a set of universal categories appearing in thought, nature and experience, the method of their discovery, and Phaneroscopy, the science that describes the *phaneron*, or the collective total of all that is in any way or in any sense present to the mind, are shown in the context of a single, evolving body of thought — a comprehensive philosophy shaped by Peirce's lifelong interest in logic, the sciences, ethics, aesthetics and metaphysics.

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Mr. Marvin Farber of the State University of New York at Buffalo suggested this study. Mr. Max H. Fisch of the University of Illinois at Urbana, mentor to countless Peirce students, has read an early draft of this study. With characteristic kindness he encouraged the writer and made many helpful suggestions. To each of them I owe a debt of gratitude. Finally, my deep appreciation goes to Mr. David DeGroot of the University of Bridgeport and editor of the series, *Philosophical Currents*, who insisted upon a book on Peirce's phenomenology. His assistance has been invaluable.

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Chapter I

THE BEGINNINGS OF PHENOMENOLOGY – INTRODUCTORY

Prefatory Remarks

The writer of this monograph on the phenomenology of Charles Sanders Peirce will presuppose that the reader possesses some broad conception about Peirce's whole philosophy and some specialized knowledge about Peirce's contributions to philosophy itself. He therefore quite candidly confesses a desire, before embarking on his inquiry, to engage the reader in brief dialogue. "Two going together, there's one before another" to help discover the way. After that he promises not to think aloud and to proceed on his business of informing the reader about what Peirce said and thought about phenomenology, how it fits into his own system, and its philosophical implications for phenomenology in general.

It strikes me as rather singular that not anywhere in Peirce's writings, the *Collected Papers of Charles Sanders Peirce*, do we find a full-length treatment of his philosophy. Does this most systematic of thinkers have a system at all? And if he does, what is it? Is it the application of logic or scientific method to every field of knowledge, as Peirce sometimes suggests it is? Certainly a case can be made for this view, until, that is, we study Peirce's schema of the sciences and discover that there are not one but four sciences – mathematics, phenomenology, aesthetics and ethics – which are prior to and independent of logic. Ought one to ignore the schema? But on what grounds? Peirce hewed to his classification of the sciences, drawn up in 1902, until his death. Oh, you reply, but he had other interests which he pursued just as zealously in that twelve-year period: his doctrine of pragmatism, his critical common-sensism, his theory of signs and existential graphs, his synechistic philosophy and mathematico-logico-metaphysical studies of continuity, his further logical researches, and his phenomenology. Yes, I respond, drawing to the point, but what has become of the system, of which the schema has given us some idea? By now the general problem should be clear.

It is important that we analyze the *special* problem that is generated for the student of Peirce's phenomenology. Much as one may wish it, one cannot ignore Peirce's system. Ethics, logic, metaphysics, the natural sciences, and aesthetics (after Leibniz and Baumgarten) have been treated as separate disciplines. They can be put together and separated. But the science of phenomenology, in Peirce's special usage, is an integral part of the technical system

that he outlined in 1902. It was then, when he drew up his detailed classification of the sciences, that the term “phenomenology” was first introduced and that Peirce attempted to define it. According to Peirce it is the business of

...phenomenology, or the Doctrine of Categories... to unravel the tangled skein of all that in any sense appears and wind it into distinct forms; or in other words, to make the ultimate analysis of all experience the first task to which philosophy has to apply itself (C. P. 1.280).¹

A somewhat simpler definition appeared the next year when Peirce made a similar outline, using a principle borrowed from Auguste Comte, whereby “one science depends for its fundamental principles upon another but does not furnish such principles to the other” (1.180). Peirce wrote:

Phenomenology ascertains and studies the kinds of elements universally present in the phenomenon; meaning by the *phenomenon*, whatever is present at any time to the mind in any way (1.186).

Of the three main divisions of philosophy (Coenoscopy) – Phenomenology, Normative Science and Metaphysics – on which the special (Idioscopic) sciences of discovery rest, the first division is fundamental. Phenomenology merely observes the phenomenon and, through analysis, ascertains its distinct forms or elements, the universal conceptions or Categories of all experiences and all thought. Totally eschewing valuative judgements, phenomenology is independent of normative science (Aesthetics, Ethics and Logic), which “distinguishes what ought to be from what ought not to be” (1.186). Aesthetics, however, defined as “the science of ideals, or that which is objectively admirable without ulterior reason,” ought to repose on phenomenology (1.191). Ethics or the science of right conduct receives its first principles from aesthetics; while logic, “the theory of self-controlled, or deliberate thought,” derives its principles from ethics. “It also depends upon phenomenology and mathematics” (*ibid.*). Finally, phenomenology by confining itself strictly to the scrutinizing of appearances, deliberately avoids the question of whether the phenomena it studies correspond to anything real (1.284 and 1.287). Making no distinction between what is illusory and what is real, Peirce performs the *epoché* or phenomenological reduction, in a manner similar to Husserl. But at the same time, as we shall see, phenomenology provides metaphysics with its three ontological categories or modes of being.

How empty, how a-historical, are all plans and blueprints, unrooted in the past, suspended in the timeless vacuity of the Ideal. Did Peirce’s phenomenology in reality, like the titular deity of the dreaming, warlike city, spring full-grown from Peirce’s head? Of course not. That is why I invite the reader,

1. References to the *Collected Papers of Charles Sanders Peirce*, Vols. I-VI, ed. Hartshorne and Weiss, Harvard University Press (Cambridge, 1931–35), Vols. VII-VIII, ed. A. Burks, are in the usual form of volume and paragraph number separated by a decimal point.

my quondam collaborator, to assist me in unravelling Peirce's phenomenology, to go back to 1867 when it was first conceived as Peirce's "new list of categories."² and to watch the unbaptized infant grow.

The path we will take through the maze of Peirce's writings may perhaps wind further than expected, for the subject is often obscured by his complex language. Nevertheless, it is a significant philosophical journey that we will pursue.

A. Growth of Ideas (1867–1902)

"The development of my ideas has been the industry of thirty years. I did not know as I ever should get to publish them, their ripening seemed so slow. But the harvest time has come, at last . . ." (1.12). So wrote Charles Sanders Peirce (1839–1914) in 1897, at the age of fifty-eight. "Out of a contrite fallibilism," concluded Peirce, "combined with a high faith in the reality of knowledge, and an intense desire to find things out, all my philosophy has always seemed to grow" (1.14).

The notion of growth pervading the realm of ideas was no new thought to Peirce. At least as early as 1868 he was seized by it. In a paper published at that time, concerning man's alleged faculty of intuition, he noted: "...the striking in of a new experience is never an instantaneous affair, but is an *event* occupying time, and coming to pass by a continuous process. Its prominence in consciousness, therefore, must probably be the consummation of a growing process" (5.284).

Admittedly, the interval of time referred to in the passage cited above may be very brief. The doctrine, however, developed in the paper from which this passage is taken, constitutes one of the cornerstones of Peirce's philosophy. Briefly stated, that doctrine asserts that "cognition arises by a continuous process," all thinking is inferential, and we have "no absolutely first cognitions of any object" (5.268). To deny that there are absolutely first cognitions is to attack both apriorism and the central tenet of British empiricism, namely, that our simple ideas arise immediately from sense-impressions or, using a phrase employed by Peirce, "first impressions of sense." (This theory will be examined in greater detail in Chapter II and need not detain us here.) What is pertinent to the present discussion is Peirce's early recognition that all ideas develop and are products of a continuous cognitive process.

Peirce's own thought matured slowly. The first attempt he made, and perhaps the closest he ever came to giving his readers an original work covering the whole domain of knowledge, was an unfinished manuscript,

2. See especially Chapter II, below.

A Guess at the Riddle, begun in 1890. That was twenty-two years after he had published his first thoughts on the subject of cognition. Unfortunately, the book was never completed. Of nine sections or chapters three were unwritten and one only partly written.³ The plan of the volume was to treat reasoning (logic in general), metaphysics, psychology, physiology and biology, physics, sociology, and theology, according to three ideas or universal conceptions which Peirce thought were present in whatever appeared at any time in any way to the mind.

The argument of this book has been developed in the mind of the author, substantially as it is presented, as a following out of these three conceptions . . . from one field of thought into another . . . That is the way the book has grown in my mind: it is also the order in which I have written it . . . (1.364).

On the title page of one of the drafts of *A Guess at the Riddle* ran the following comment in Peirce's hand: "And this book, if ever written, as it soon will be if I am in a situation to do it, will be one of the births of time" (1.354, fn.).⁴ Once again, the notion of growth appears. It is true that the phrase "births of time" is ambiguous. Viewed as a piece of grandiloquence, it speaks only of the philosopher's frame of mind. Other neglected philosophers have made similar avowals. Seen in the context of Peirce's philosophical labors over a period of more than twenty-five years, piecemeal for the most part, consisting of writings on formal logic, mathematics, the logic of science, theory of cognition, and one paper, presenting Peirce's doctrine of the Categories of thought; in such a context, the phrase, "births of time," takes on an added significance. It connotes early conception, slow laborious parturition and the final expulsion of a living idea, or philosophy.

"Religionists generally," Peirce wrote in 1902 – and for *religionists* we may read *all kinds of dogmatists* – "... have set their faces against the idea of continuous growth.

Religious truth having once been defined is never to be altered . . . the religionists have bitterly fought by fire and tortures all great advances in the true sciences; and if there be no true continuous growth in men's ideas where else in the world should it be looked for? Thence, we find this folk setting up hard lines of demarcation . . . contrary to all observation, between good men and bad, between the wise and the foolish, between the spirit and the flesh, between all the different kinds of objects, between one quantity and the next (1.40).

At this point in the argument Peirce, whose attitude toward the Hegelian philosophy had always been ambivalent, recognizes his affinity with the German philosopher.

3. Cf. *Collected Papers*, vol. VIII, Bibliography, p. 276.

4. The phrase "births of time" is Bacon's.

So shut up are they in this conception of the world that when the seminarist Hegel discovered that the universe is everywhere permeated with continuous growth (for that, and nothing else, is the "Secret of Hegel") it was supposed to be an entirely new idea . . . (*ibid.*).

"My philosophy," Peirce concluded, "resuscitates Hegel, though in a strange costume" (1.42). In 1902 Peirce reverts to this idea again and once more invokes Hegel's spirit. "It is of the nature of thought to grow," he writes:

and now, not caring to adhere strictly to Hegel's text (as nobody animated by his spirit does, any longer) but guided rather by the history of thought, I ought to indicate . . . some of the directions that growth will take (2.33).

The rest of this passage should be read, keeping in mind the fact that Peirce's *A Guess at the Riddle* (1890) was intended to be "a following out of . . . three conceptions . . . from one field to another."

The new conception will not be content to be restricted to the particular phenomena it was devised to explain: it will *insist* upon applying itself to analogous phenomena, and to others analogous to these again, without stint. For that purpose it must be widened and probably simplified and rendered more agreeable to reason. It will not be content with explaining the history of thought, but will aim to explain history in general. It will not be content with accounting for man, but will wish to grasp all the forms in the universe, *which is greater than man* . . . (2.33, emphases mine).

The word "insists" in the first sentence deserves our attention. "The new conception . . . will insist. . . ." One interprets this to mean that Peirce believed either from personal experience, his study of the history of ideas, or both, that ideas develop autonomously. That is to say, they evolve, spread, attract minds, become more general, almost, in fact, lead a life of their own.

This view is presented at considerable length in an essay, "Evolutionary Love," published in 1893. In this paper, part of a series⁵ which purposed to show "what elementary conceptions ought to form the brick and mortar of a philosophical system" (6.238), Peirce demarcated three modes of evolutionary change and applied them to the world of thought.

The first, Darwinian, is evolution by sporting or minute variations, called by Peirce *tychastic* after the Greek word for chance. The second, evolution by mechanical necessity, is due to sudden, catastrophic changes in the outward environment, and was labeled *anancastic* from the Greek *anankē*. The third, Lamarckian evolution by exercise and effort, received the appellation *agapastic* from *agape*, or "creative love." Thus Peirce gives us not one, but three, modes of evolution: evolution by fortuitous variations, evolution by mechanical necessity and evolution by creative love, by conscious effort and the spreading of ideas.

5. The so-called *Monist* series; six papers published in *The Monist* from 1891–1893, of which "Evolutionary Love" is the fifth.

(1) *Tychastic development of thought*. Applied to the growth of ideas, evolution by chance “will consist in slight departures from habitual ideas . . . quite unconstrained by outward circumstances or by force of logic” (6.307). Peirce comments: “However it may be with individual minds, the historical development of thought has been seldom of a tychastic nature” (6.311). Where it has developed in this manner, it has been “exclusively in backward and barbarizing movements.” As the greatest example of tychasm, Peirce adduces the history of Christianity. From the primitive gospel of Mark, which “contains not a single trace of bitterness,” we proceed by insensible steps to the Gospel of John, “which tells about the ‘resurrection unto condemnation’ ” (6.311). The progress from the doctrine of universal love to the partisan spirit that led to the burnings of the great libraries of Alexandria and Rome relates a similar story (*ibid.*).

(2) *Anancastic development of thought*. In this mode, according to Peirce, new ideas are adopted “without foreseeing whither they tend.” Their character is determined 1) “by causes . . . external to the mind, such as changed circumstances of life,” or 2) by causes “internal to the mind as logical developments of ideas already accepted” (6.307). Of external influences Peirce cites “brute force, the plain war,” and “the hard fact of evidence,” including questionable evidence, “which has been known to convince men by hordes” (6.312). As an example of internal anancasm Peirce points again to the Hegelian philosophy, towards which Peirce maintained such ambivalent feelings. Hegel, he wrote, sought “to make logic, not merely the subjective guide and monitor of thought . . . but . . . the very mainspring of thinking, and not merely of individual thinking but . . . of all history, of all thought” (6.313).

(3) *Agapastic development of thought*. What agapastic development is remains to be shown. It is “the adoption of certain mental tendencies, not altogether heedlessly, as in tychasm, nor quite blindly by the mere force of circumstance or of logic, as in anancasm” (6.307). Rather, such mental tendencies are adopted because of “an immediate attraction for the idea itself, whose nature is divined before the mind possesses it, by virtue of the power of sympathy, that is, by virtue of the continuity of mind” (*ibid.*).

Suppose, for example [Peirce writes], that I have an idea that interests me. It is my creation . . . I love it; and I will sink myself in perfecting it. It is not by dealing out cold justice to the circle of my ideas that I can make them grow, but by cherishing and tending them. . . . (6.289).

For an understanding of Peirce’s philosophy, this brief account of the historical development of ideas may be of some value. Along with such Peircean metaphors as “grow,” “ripen,” “harvest,” “birth,” and the like, it gives a picture of a philosophy slowly maturing, a product of mind which is not precisely one mind, obeying laws of internal development of which it is

largely unconscious, responding to outward events, novel ideas, new experiences, fresh observations, even to the mode of life of the philosopher – Peirce himself was a trained, working scientist – and the place and time in which he lived.

This interpretation of the development of Peirce's philosophy is the one which the present writer will adopt. As a working hypothesis, and it is no more than that, it has the advantage of seeing Peirce's philosophy as an organic whole, evolving in time, with a beginning and middle, and tending toward some limit or end.

Though variant, the interpretation offered here is not inconsistent with the view expressed by Fisch, who stated:⁶

Peirce certainly would have regarded himself as an evolutionist and would have had no difficulty in applying evolutionary theory to science of philosophy. In a general way for Peirce scientific method, or methods, was intended for the extermination of false beliefs and reaching true ones, i.e., beliefs that would stand in the long run.

What science does, Peirce might have reasoned, is to accelerate this process of natural selection. One way of doing this would be to make our theories precise enough that observations could prove them wrong. Another would be to make all our theories consistent with each other, to make one branch of science responsive to another.

Philosophy ties things together, and thinking in *architectonic* terms begets new theories and greater comprehensiveness. But there is no inconsistency between systematic thinking, on the one hand, and expecting great changes on the other.

We now revert to our original question. Did Peirce have one system? There is little doubt that he had one in mind. From 1890 onwards, from the time he began the unfinished *Guess at the Riddle*, we find him prophesying a philosophical system broad enough to encompass every branch of human knowledge. He speaks of erecting "a philosophical edifice that shall outlast the vicissitudes of time" (1.1). Like Aristotle's, it will be "builded upon a few deliberately chosen concepts . . . very broad, and in their outline vague and rough" (*ibid.*) – an indirect reference to his three "cenopythagorean" Categories which, as we have seen, constitute the heart of *A Guess at the Riddle*. And in 1893, in a foreword to *Principles of Philosophy*, another ambitious undertaking left unfinished, he writes of the necessity of "planning out a philosophy from the beginning," in accordance with the architectonic method of Kant. The only book-length, philosophical work Peirce ever completed also refers to a future philosophy grounded on broad logical principles. But the *Grand Logic*, as it was titled, of 1893 was only the

6. Expressed in a private conversation. Permission to quote granted by Professor Max H. Fisch.

prolegomenon to that work, and the projected philosophy was never written.⁷

The consequence of this for understanding Peirce's thought is that we cannot glimpse it as a whole, for nowhere is it presented as such. From this historical accident, which the editors of Peirce's posthumously published papers have termed "a tragedy,"⁸ have arisen conflicting interpretations as to the unity of Peirce's thinking. Indeed, one critic, by systematically applying what he calls the "architectonic principle" to Peirce's thought, has found in Peirce not one but four philosophical systems, developed in chronological succession.⁹ This raises a question of fundamental importance to the student of Peirce's phenomenology. Did Peirce's thought develop systematically? Granted he possessed the system-making mind, was the development of Peirce's thought always conscious, systematic and controlled? If Peirce was from the outset consciously concerned with constructing a system that would embrace every field of knowledge, it may well be that phenomenology, which emerged as a recognized science only in 1902, belongs to some late system of Peirce's thought, a system superseding earlier, and presumably, mistaken efforts at system-devising.

B. The Architectonic Principle

Such an interpretation has been put forth by Professor Murray G. Murphey, author of *The Development of Peirce's Philosophy* (1961) and an article, "Charles Sanders Peirce," appearing in *The Encyclopedia of Philosophy* (1967).¹⁰

Professor Murphey begins with the incontestable fact that Peirce's philosophy developed. The development was entirely conscious, systematic, deliberate, following a single line of reason or thought. This, as it appears, is Murphey's viewpoint.

Peirce came to philosophy [Prof. Murphey wrote] as a student of Kant, from whom he had acquired the architectonic theory of philosophy. In brief, this theory holds

7. The closest Peirce came to presenting his *system* was when he drew up an outline of the sciences in 1902–1903. But the classification (C. P. I, BK II, ch. ii), while detailed in part, remains an outline, a highly formal scheme or blue-print for a future system. What is left out is the *matter*, the basic concepts or broad conceptions on which science and philosophy are to be founded. Significantly, at least to the student of Peirce's phenomenology, the new science of that name, introduced in the formal system, was to provide these fundamental conceptions.

8. C. P., vol. I, p. v.

9. Cf. Murray G. Murphey, *The Development of Peirce's Philosophy* (Cambridge, Harvard Univ. Press, 1961).

10. Vol. 6, pp. 70–78.

that the domain of knowledge can be so characterized that general assertions can be proven true of all possible knowledge; the theory also holds that it is the dependence of all knowledge upon logic that makes such a characterization possible. Accordingly, the doctrine holds that it is possible to derive from logic the fundamental categories and principles which form the basis of all that can ever be known.¹¹

Unlike Kant, however, Peirce did not regard logic as a perfected science.

...for Peirce [wrote Murphey] logic was a growing, changing subject, and as it changed, so according to the architectonic theory, Peirce's philosophy had to change with it. *Thus, the major shifts in Peirce's system are correlated with his major discoveries in logic and reflect the modifications he thought these discoveries entailed.*¹²

Professor Murphey concludes:

Since Peirce's views underwent considerable change as he grew older, it is not possible to speak of his philosophy as a single system; rather, he formulated several...¹³

The remainder of Professor Murphey's encyclopedia article is devoted to an elucidation of *four* such systems.

This, in sum, is Murphey's interesting thesis. It rests on two assumptions from which a rather shaky conclusion is drawn. Assumption A: that Peirce, as a student of Kant, held the "architectonic theory" from the outset of his philosophical career (see first quotation). Assumption B: that "the major shifts in Peirce's system (*sic*) are correlated with his major discoveries in logic" (see quotation two). Conclusion C (drawn from A and B): that Peirce's views altered so greatly as he became older, that it is not possible to speak of his philosophy as one whole; rather it formed four distinct systems.

Let us put these claims to test, out of fairness to Peirce, who claimed that his ideas grew, i.e. developed agapastically, *not* anancastically as "logical developments of ideas already accepted" (6.307). Concerning assumption A, there is no evidence that "Peirce came to philosophy" with an architectonic theory of philosophy. A search through the *Collected Papers* reveals no mention of the term "architectonic" earlier than 1891 when Peirce published a paper, "The Architecture of Theories." Nor did Mora, who has written on Peirce's architectonic,¹⁴ discover any entry predating the one in the essay mentioned above. The argument, admittedly, is inconclusive. Nonetheless, it very strongly suggests that the idea of building a philosophy on a few concepts of reason, suggested by experience, came to the forefront late in Peirce's philosophical career.

11. *Ibid.*, pp. 70–71. Widespacing mine.

12. *Ibid.*, Emphases added.

13. *Ibid.*

14. Mora, J. Ferrata, "Peirce's Conception of Architectonic and Related Views, *Philosophy and Phenomenological Research*, 3, 1955.

In the second place, considering Peirce's early rejection of Kant's categories (1866–67) *because* they were based on a table of judgements suggested by a given system of logic, it is extremely doubtful that Peirce later on would have thought it possible to *derive* from formal logic "the fundamental categories and principles which form the basis of all that can ever be known" (see quotation one). Yet this is the heart of Murphey's thesis, namely, that Peirce's philosophy developed in accordance with "his major discoveries in logic," all of which belong to the domain of formal logic.¹⁵

Let us turn now to Peirce's exposition of architectonic.

In his essay, "The Architecture of Theories," Peirce begins by remarking that "Of the fifty or hundred systems of philosophy that have been advanced at different times of the world's history, perhaps the larger number have been, not so much results of historical evolution, as happy thoughts which have *accidentally* occurred to their authors" (6.7, emphasis mine). The remaining systems "have been of the nature of reforms." But this really amounts only to "partially rebuilding a house." "The repairs" are merely makeshift; at the same time insufficient care is taken "to bring the additions into deep harmony with the really sound parts of the old structure" (6.8). A system of philosophy ought to be built from the ground up. It requires long thinking and preparatory study. Wrote Peirce:

When a man is about to build a house, what a power of thinking he has to do before he can safely break ground! . . . I think we may safely say that the studies preliminary to the construction of a great theory should be at least as deliberate and thorough as those that are preliminary to the building of a dwelling house (6.9).

Peirce goes on: "That systems ought to be constructed architectonically has been preached since Kant, but I do not think the full import of the maxim has by any means been apprehended:

What I would recommend is that every person who wishes to form an opinion concerning fundamental problems should first of all make a complete survey of human knowledge, should take note of all the valuable ideas in each branch of science . . . I purposely slur over many points in order to give emphasis to one special recommendation, namely, to make a systematic study of the conceptions out of which a philosophical theory may be built, in order to ascertain what place each conception may fitly occupy in such a theory, and to what uses it is adapted (6.9).

The remainder of the essay is devoted to illustrating Peirce's meaning. He begins with dynamics and its conceptions of *force* and *law*, passing on to three theories of evolution (chance, growth, heredity, habit and effort, external forces and the breaking up of habits); then to psychology with its three

15. After 1867, the most important cited by Murphey are the discovery of triadic relations and development of quantification theory.

categories, feelings, sensations of reaction, and general conceptions; next to modern mathematics and the conception of continuity; finally, to logic, with *its* conceptions of First, Second and Third (the Doctrine of the Categories).

This is what architectonic means to Peirce. It is the art of constructing a system in terms of a few basic concepts, the most fundamental of which, for Peirce, were the Categories of First, Second and Third. But the fundamental importance of this particular triad is not a matter of logic alone to which it certainly applies. The centrality of the categories is substantiated by their appearance *in* physics, biology, psychology, viz.:

In psychology Feeling is First, Sense of reaction Second, General conception Third/ or mediation. In biology, the idea of arbitrary sporting is First, heredity is Second, the process whereby the accidental characters become fixed is Third. Chance is First, Law is Second, the tendency to take habits is Third. Mind is First, Matter is Second, Evolution is Third.

Such are the materials out of which chiefly a philosophical theory ought to be built, in order to represent the state of knowledge to which the nineteenth century has brought us. Without going into other important questions of philosophical architectonic, we can readily foresee what sort of metaphysics would appropriately be constructed from those conceptions... it would be a Cosmogonic Philosophy (6.32–33).

Clearly architectonic is not a task for the neophyte. Its fruition comes after long, arduous study, after years of immersion in the special sciences. Only then does reason suggest the application of the *regulative* principles of reason to every field of knowledge, which is Kant’s Transcendental Method. Kant himself saw this when he wrote:¹⁶

It is a misfortune that only after having collected for a long time at haphazard, under the influence of an idea that lies hidden in us, materials belonging to a science, nay, after having for a long time fitted them together *technically*, a time arrives when we are able to see its idea in a clearer light, and to devise *architectonically a whole system, according to the aims of reason*. Systems seem to develop like worms through a kind of *generatio aequivoca*, by the mere aggregation of numerous concepts... though they all had their schema, as their original germ, in reason which was itself being developed.

In the light of Peirce’s exposition of architectonic and Kant’s understanding of the slow development of systems “according to the aims of reason,” it would appear extremely unlikely that Peirce, *because* he was a student of Kant, was from the outset of his philosophical career concerned to apply the architectonic method to philosophy. The piecemeal procedure of Peirce’s thought indicates rather a groping *towards* a system; in the words of Kant, perhaps “under the influence of an idea that lies *hidden* within us.”

We must now examine Murphey’s second assumption, namely, that the

16. *Critique of Pure Reason*, A: 831–835; B: 860–863. Emphases added.

major shifts in Peirce's philosophy were results of his discoveries in formal logic.

In the first place, did Peirce himself feel compelled to radically revise his philosophy in accordance with these discoveries? Once more the words of Peirce appear to belie this conjecture. The "major shifts" which Murphey alleges occurred are only "nominal" in the eyes of Peirce, when he looks back on the development of his ideas. That is to say, the logical discoveries which Peirce made in the course of his career did not cause him to abandon his earlier formulations, but to restate them more precisely. We may cite two instances: (1) in connection with Peirce's logic of relatives, and (2) in connection with quantification theory.

(1) The discovery of triadic relations.

This major discovery did not, as Murphey alleges, lead Peirce to put aside his 1867 formulation of the Categories but simply to rename them. The Categories were first named *quality*, *relation* and *representation*. At the time (1867) Peirce was not aware of relations higher than the dyadic. When his own study of the logic of relatives (c. 1870) led him to conclude that polyadic relations were not always reducible to conjunctions of dyadic ones, as he had hitherto supposed (1.565 and 4.3), he felt obliged to find another term to replace *relation* for the second category. The new term he chose was *reaction*. But the change was only nominal. Under its new name, Peirce's second category was still restricted to dual relations. The term *representation* was also changed for a reason related to language, not logic. All of this the following account, referring to the 1867 list of categories and written in 1898, makes clear:

I now undertook to ascertain what the conceptions were. The search resulted in what I call my categories. I then named them Quality, Relation and Representation. But I was not then aware that undecomposable relations may necessarily require more subjects than two; for this reason *Reaction* is a better term. Moreover, I did not then know enough about language to see that the attempt to make the word *representation* serve for an idea so much more general than any it had habitually carried, was injudicious. The word *mediation* would be better. But for scientific terms Firstness, Secondness, and Thirdness are to be preferred as being entirely new words without any false associations whatever. How the conceptions are *named* makes, however, little difference (4.3, Peirce's emphasis).

Thus, we see that, in Peirce's opinion, the discovery of triadic relations in 1870 did not entail a real revision of the original categories, which appeared in 1867.

Further evidence that Peirce regarded his early paper as logically sound may be gathered from the following paragraph, written in 1895:

The truth is that my paper of 1867 was perhaps the least unsatisfactory, from a logical point of view, that I ever succeeded in producing; and for a long time most of the modifications I attempted of it only led me further wrong (2.340).

Murphey, however, makes one further assertion concerning the importance of Peirce's discovery of triadic relations. He tells us that it "forced Peirce to abandon the subject-predicate theory of the proposition, which underlies the 'New List' of 1867. . . ."¹⁷ According to Murphey, it now "becomes possible to conceive the object not only in terms of its indwelling qualities but also in terms of relations among its states and with other objects – that is, in terms of its behavior." The implication is that Peirce's pragmatic theory of meaning, first announced in 1878, was inextricably bound up with his logic of relatives. Granting the validity of Murphey's contention, his original assertion is not in accord with the facts. Peirce never abandoned the subject-predicate theory of the proposition, although the discovery of triadic relations (the fact that "A gives B to C" cannot be reduced to an aggregate of dyadic relations) compelled him to analyze propositions containing more than two logical subjects. In 1902 Peirce stated clearly:

The logicians usually say that a categorical proposition has "two terms," its *subject* and its *predicate*, wherein . . . they stumble upon the truth. Their usual *doctrine* is . . . that such a proposition has three terms, the subject, predicate and *copula* . . . The present author leaves the *is* as an inseparable part of the class-name, because this gives the simplest and most satisfactory account of the proposition (2.328).

As to "whether *every* proposition has a subject and predicate," Peirce wrote (2.318), "It has been shown . . . that this is true of a Conditional; and it is easily seen that it is equally true of any Disjunctive. . . . A copulative proposition [conjunction] even more obviously has a Subject and Predicate." So much for Murphey's allegation.

(2) The discovery of quantification.

Finally, Professor Murphey contends that the "discovery" of quantifiers in about 1883 necessitated a radical reformulation of Peirce's original categories. In Murphey's opinion, it was the introduction of quantifiers which led Peirce to view the Categories, which he had formerly taken to be the formal elements of all thought, as *material* categories as well.

Murphey is especially concerned with the material aspect of Secondness, the category of otherness, to choose a neutral term. Did Peirce in 1867, or at any time thereafter before the discovery of quantification, believe that genuine singulars – individual things – existed? Murphey returns a negative verdict. In 1867, Murphey writes,¹⁸ Peirce held "that there is no true individual, and that therefore everything is to some degree general. Peirce's realism was thoroughly idealistic throughout." But later in the same article,¹⁹ Murphey states that Peirce "called the material aspect of Secondness haecceity," a term borrowed from Duns Scotus. "For Scotus," Murphey continues,

17. *Encyclopedia of Philosophy*, vol. 6, p. 73, col. 1.

18. *Ibid.*, p. 72.

19. *Ibid.*, pp. 74–75.

“haecceity was the principle of individuation: only individual things have haecceity. It was apparently the discovery of quantification theory which led Peirce to this formulation.”

From the point of view of a logician, this claim appears implausible. As a logician of genius, Peirce was as well acquainted with traditional logic as any man of his time. It could hardly escape his attention that Aristotle used the quantifiers, “some” and “any,” with the former interpreted as meaning “at least one.” Further, all probability logic employs some form of quantification, and Peirce had written extensively on the subject of probability long before 1883.²⁰

But not only that, within the limits of the monadic predicate calculus, it is possible to quantify the objects referred to, as Peirce well knew. For as early as 1870, in a lengthy paper describing a notation for the logic of relatives, Peirce noted that particular categorical propositions, as “Some horses are black,” could be expressed in his calculus either (a) by treating them as contradictory of universal propositions (3.141) or (b) by means of “the signs of inequality” (3.143).²¹

Finally, the notion of a sign, operating as an index, had appeared in Peirce’s writings in 1867 (see Chapter II below).

In the light of all this, it appears highly unlikely that the introduction of quantification symbols into a polyadic predicate calculus should have had such far-reaching consequence as to cause a major change in Peirce’s metaphysical views.

Yet this is what Murphey represents the case to be. Prior to 1883, he alleges, Peirce was of the opinion that “genuine singulars” did not exist. Only in about 1883, owing to the discovery of quantification symbols, does Peirce reverse his position, now holding that “individual things have haecceity,” i.e., non-generality. Is Murphey correct on this important count?

Prima facie evidence exists which seems to bear out his contention. But much depends upon interpretation. In a footnote to an extremely important logical paper, written in 1870,²² Peirce wrote as follows:

(1)

The absolute individual can not only not be realized in sense or thought, but cannot exist, properly speaking. For whatever lasts for any time, however short, is capable of logical division, because in that time it will undergo some change in its

20. See, for example, his 1867 review of John Venn’s *The Logic of Chance*, C. P. 8.1–8.6, and Peirce’s own essay, “The Doctrine of Chances,” C. P. 2.645–660, 1878.

21. The first procedure is followed by D. Hilbert and G. Ackermann, see their *Principles of Mathematical Logic* (Chelsea Publishing Co.: New York, 1950), pp. 47–48; the second by M. Cohen and E. Nagel in *An Introduction to Logic and Scientific Method* (Harcourt, Brace & World Inc.: N. Y.: 2d Ed. Rev., 1936), pp. 124–125.

22. “Description of a Notation for the Logic of Relatives,” *Memoirs of the American Academy*, vol. 9, pp. 317–78 (1870), C. P. 3.45–148.

relations. But what does not exist for any time, however short, does not exist at all. All, therefore, that we perceive or think, or that exists, is general.

(2)

So far there is truth in the doctrine of scholastic realism. But all that exists is infinitely determinate, and the infinitely determinate is the absolutely individual. This seems paradoxical, but the contradiction is easily resolved. That which exists is the object of a true representation. This conception may be made more determinate than any assignable conception; and therefore it is never so determinate that it is capable of no further determination. (3.94, fn. 1)

The two parts of this long footnote do seem to contradict each other. In part (1) all that exists is said to be general. Murphey's interpretation depends upon this conclusion. But in part (2) the conclusion of (1) seems to be contradicted by the assertion that "all that exists is infinitely determinate, and the infinitely determinate is the absolutely individual [non-general]." Shall we follow Murphey's interpretation and conclude that Peirce did not have a clear conception of a genuine singular in 1870? Or follow Peirce, who claimed that the two statements, seemingly paradoxical, "all that exists is general," and "all that exists is infinitely determinate . . . absolutely individual," were *not* in fact contradictory? To do justice to Murphey's argument and also to Peirce's, let us first examine part (1). On what grounds did Peirce hold that *absolute* individuals did not exist and that all that exists is general?

In part (1) Peirce is arguing against the notion that an absolute individual, a thing-in-itself, can exist at all. His premiss is: an individual exists in time. See his statement (p. 29): "But what does not exist for any time, however short, does not exist at all." Now insofar as an individual thing exists in time, it undergoes change in relation to its former states (change in quality or quantity) or with other things (change in external relation). Thus, a real individual is "capable of logical division," is *logically* divisible. The expression is perhaps unfortunate. To illustrate its meaning, let us take an example Peirce used. The term "the second Philip of Macedon" can be logically divided into "Philip drunk and Philip sober," but we call the term "individual because that which it denotes is in only one place at one time" (3.93). Now if whatever truly exists is at least *logically* divisible, the absolute individual, or thing-in-itself, which is what it is absolutely, and, hence, is incapable of division, cannot exist at all. "Absolute individuality is merely ideal" (3.93).

But that is not all. In part (1) Peirce tells us that we cannot even imagine an absolute individual. To sense such a thing we would have to have an image determinate in every possible respect, which is logically inconceivable, since everything that exists, for however short a time, is capable of further logical division. An Husserlian insight may be useful here: *Every perception, every imagining, has an "infinite horizon."* Thus, every image is in part indeterminate or general.

Moreover, we cannot comprehend such a thing in thought, since all representation, according to Peirce, involves signs (see ch. III, pp. 54–56). Of the three kinds of signs used in thinking, the first are likenesses or *icons*. Icons are either images, or phantasies (visual, acoustic, tactile, etc.) or they are mental diagrams. But, as we have seen, there are no absolutely determinate images and, further, there is no contradicting the fact that intellectual constructions (e.g., those used in mathematics) are highly generalized, mental pictures. Thus, no icon can be wholly determinate. The second kind of sign is the *index*, to which class belongs demonstrative pronouns, the upper-case letters used in geometry to denote lines, and the like, all of which are almost entirely indeterminate with respect to the object to which each refers. Finally, no conventional *symbol*, whose meaning is fixed by a rule or definition, is absolutely determinate, for each is involved in an *endless* series of interpretations, all tending toward an ideal limit, which is reachable in theory only.

Thus, Peirce concludes, “All that we perceive or think, or that exists, is general.”

If this interpretation of part (1) of the footnote is correct, we may draw the following conclusions. First, what Peirce is arguing against is not the haecceity – the *hic et nunc* – of individual things. A particular relative term such as the “second Philip of Macedon” is *called* individual precisely because “that which it denotes *is* in only one place at one time” (3.93, emphasis mine). To generalize, any individual term by definition denotes that which exists “in only one place at one time.” That is its extension. Its comprehension is another matter (although equally real for Peirce). Second, what Peirce is denying is the existence of things-in-themselves, the Kantian *Dingen-an-sich*. For, while Peirce was a student of Kant, he by no means subscribed to every Kantian doctrine. As Savan points out in an article, “The Origins of Peirce’s Phenomenology,” Peirce was from the beginning opposed to “Kant’s appeal to transcendental principles and entities,” such as the transcendental ego and the “unknowable but existent thing-in-itself.”²³ Wrote Savan, “Peirce is a Kantian with the transcendentalism left out.”²⁴

In the light of the above interpretation, part (1) of the footnote quoted above does not contradict part (2). Part (1) asserts that all that exists is general; in effect, that generals are real. As Peirce expressed it, “So far there is truth in the doctrine of scholastic realism.” But to say that all that we perceive or think, or that exists, is general also means that generals or universals are not only in the mind (*in intellectu*) but in things (*in rebus*) as well. Thus, the general exists outside of the mind, although it is only

23. In P. P. Wiener and F. H. Young, ed., *Studies in the Philosophy of Charles S. Peirce* (Harvard Univ. Press: 1952), p. 186.

24. *Ibid.*

grasped in thought. It is not a *mere* concept or name. “But all that exists is infinitely determinate,” Peirce tells us, *as well*. Had Peirce added the words “as well” to the sentence just quoted all semblance of paradox might have disappeared. To say that everything which exists is infinitely determinate, that is, determinate in every possible respect, or absolutely individual, is not inconsistent with stating that such individuals also fall into classes and, thus, share a degree of generality, a generality which is not a contribution of the mind but is constitutive of the very reality (*extra mentem*) which the mind knows.

To sum up, there is no inconsistency in holding that the absolute individual or thing-in-itself does not exist, and that things infinitely determinate, existing “in only one place at one time,” do; nor that whatever exists is absolutely individual and at the same time has in common with other existent individuals certain general features or characters.

* * *

This digression on the architectonic principle has had two purposes. First, to dispute the claim that (a) the development of Peirce’s thought is best explained by supposing that Peirce, from the outset of his philosophical career, was concerned to apply to all fields of knowledge the architectonic method, inherited from Kant; and (b) that the major shifts in Peirce’s philosophy were occasioned by discoveries he made in *formal* logic. Second, to place forward the writer’s own interpretation of the facts (as indicated in section A of this chapter), viz., that Peirce’s thought developed freely and largely unconsciously along many lines: logical, mathematical, scientific, metaphysical *and phenomenological*, and that it was only in c. 1884–1890 that these lines or interests converged. The convergence was signaled by the writing of the unfinished manuscript, *A Guess at the Riddle* in 1890, and a year later by the publication in *The Monist* of “Architecture of Theories,” in which, the term “architectonic” makes its first appearance in the published writings of Peirce.

In fine, the present writer subscribes to the doctrine that Peirce’s ideas, *including phenomenology*, grew under the influence (perhaps) of some idea of reason that lay “hidden in him.” But not until such an idea had crystallized could Peirce, in the words of Kant, “devise architectonically a whole system, according to the aims of reason.”²⁵ The detailed working out of such a system, constructed according to the architectonic method, did not commence in a formal sense until 1902, when Peirce’s classification of the sciences was written. In that outline the term “phenomenology” originally appeared. But the idea of phenomenology had its origin in one of Peirce’s most carefully written papers, “A New List of the Categories,” published in 1867.

We shall now turn to that essay.

25. *Critique of Pure Reason*, A: 831–835; B: 860–863.

Chapter II

THE BIRTH OF PHENOMENOLOGY – 1867–68

The essay, “On a New List of Categories,” which is the subject of this chapter, was published in the spring of 1867. One of a cluster of brilliant papers on logical subjects appearing that year, it was the second important philosophical writing of Peirce’s career.¹ References to the article, a little more than 4000 carefully-selected words, abound in the literature on Peirce; but, owing perhaps to its great compression and a clumsiness in expression, as though Peirce had not yet found locutions adequate for his thought, this paper has not, with a single exception,² been given the close attention to which it is entitled. There are, however, several reasons, which I shall list, for making it the subject of minute scrutiny. The first is historical. “On a New List of the Categories” is, after all, the first statement of Peirce’s doctrine of the categories, a doctrine which Peirce regarded, both early and late, as fundamental to any well-conceived philosophical system. “Now upon the table of categories philosophy is erected,” he wrote in 1866.³ And in 1902 he expressed himself thus: The first order of philosophy is “Phenomenology, or the Doctrine of the Categories, whose business it is . . . to make the ultimate analysis of all experiences the *first* task to which philosophy has to apply itself” (1.280, emphasis added).

The second has to do with the special nature of the paper itself.

1. The historical background of “On a New List of the Categories”

Justus Buchler, whose early study, *Charles Peirce’s Empiricism* (1939), represents a milestone in Peircean scholarship, is quite correct in making the following statement. “Peirce’s literary activity began in 1867 and conti-

1. The others were “On an Improvement in Boole’s Calculus,” “On the Natural Classification of Arguments” (Peirce’s first important philosophical statement), “Upon the Logic of Mathematics,” “Upon Logical Comprehension and Extension” and a review of John Venn’s *The Logic of Chance*, which presented Peirce’s early views on the conception of probability. In the following year (1868) three important papers on theory of cognition were published. “Questions Concerning Certain Faculties Claimed for Man” and “Some Consequences of Four Incapacities” are of especial interest.

2. For a lengthy discussion of the New List essay, cf. Manley Thompson, *Philosophy of C. S. Peirce* (Phoenix Books, University of Chicago Press, 1953), pp. 19–29.

3. From the second preliminary draft of the “New List of Categories,” p. 1. Draft II is reproduced in the Appendix to Murphey’s *Development of Peirce’s Philosophy*, pp. 411–414.

nued almost unceasingly until a few years before his death in 1914. From the very beginning his approach was revolutionary and constructive."⁴ It was at this time, too, that he began working "reasonably, that is to say," as he wrote to a friend, "under the dominance of a well-matured purpose."⁵

Given the accuracy of these statements, we would do well to look very closely at the constellation of papers which appeared in the period 1867-68.⁶ And what strikes us from the very first is the absence of illustrations from the field of natural science. There are no examples from astronomy, geology, biology, physics or chemistry. There is no discussion of the special methods employed in the physical sciences. What we find, instead, are highly original contributions to the theory of logic (including the categories), of number, of cognition (or knowledge), and of reality (metaphysics).

Are these the writings of a natural scientist, of one who claims he was trained in a laboratory, whose "attitude was always that of a dweller in a laboratory, eager to learn that which I did not know" (1.4); whose philosophy "may be described as the attempt of a physicist to make such conjectures of the constitution of the universe as the methods of science may permit" (1.7)? That is one question we must surely ask. And in what sense is Peirce's approach revolutionary, as Buchler avers? For an answer to the first question, we must turn to the biographical data we have on the years prior to 1867.

According to Weiss, Peirce first showed an interest in the natural sciences at the age of eight when "he began to study chemistry of his own accord."⁷ At twelve he had set up his own chemical laboratory, "experimenting with Liebig's bottles of quantitative analysis." This early interest was not abandoned by Peirce and was encouraged by his father, Benjamin Peirce, an eminent mathematician who wanted his son to be a scientist. After graduation from Harvard College, Peirce completed a three-year study of chemistry at the Lawrence Scientific School, where he received the degree of bachelor of science in chemistry, *summa cum laude*, the first degree of its kind awarded by that institution. In the same year he published his first scientific paper, "The Chemical Theory of Interpenetration," in the *American Journal of Sciences and Arts*.⁸

4. Quoted from the introduction to *Philosophical Writings of Peirce*, selected and edited by Dr. Buchler (N. Y.: Dover Publications, 1955), p. ix.

5. Letter to Judge Francis C. Russell, Unpub. mss.: L387.

6. See Ch. II, fn. 1, above.

7. For most of the biographical data which follows, I am indebted to Paul Weiss, co-editor of Peirce's *Collected Papers*, whose article, "Peirce, Charles Sanders," in the *Dictionary of American Biography* (N. Y.: Charles Scribners, 1943), xiv, pp. 398-403, is the source of much valuable material. Biographical or bibliographical information, obtained from the *Collected Papers*, are given their source either in footnotes or in the text.

8. See *Collected Papers*, viii, "Bibliography," p. 260.

In 1852, at the age of thirteen, “I first seriously set myself . . . to the study of logic” (2.663). At that time he read the *Elements of Logic* by Whateley. Twelve years later in the winter of 1864–65 he was lecturing at Harvard on the logic of science; in the winter of 1866–67 he delivered a series of twelve lectures on “The Logic of Science, or Induction and Hypothesis.”⁹ This may give some indication of the confluence of Peirce’s two earliest interests, the physical sciences and logic.

Not all of Peirce’s early years were spent in the classroom either as teacher or student. Following graduation from Harvard in 1859, he was away “surveying in the wilds of Louisiana” (5.65), returning to Cambridge in the summer of 1860. During his absence, the *Origin of Species* had appeared. In the summer of his return he found Chauncey Wright, a brilliant American philosopher who died at 45, “all enthusiasm for Darwin.” Peirce was equally as impressed, remarking to Wright that “these ideas of development had more vitality by far than any of his (i.e., Wright’s) other favorite conceptions” (*ibid.*). Thus, in 1860, seven years before Peirce’s literary activity began, Peirce was exposed to and embraced with enthusiasm one of the leading ideas of 19th-century science, that of evolution (yet no mention is made of it in the series of papers written in 1867–68).

In July, 1861, we are told by Weiss, Peirce joined the United States Coast Survey as a working scientist. Here he acquired more laboratory training, making celestial and terrestrial observations and devising new methods of measurement. It is quite certain that Peirce had worked with the U.S. Coast Survey two years prior. For the superintendent of that agency, in his fiscal report for the year ending in June, 1859, makes reference to Peirce’s “azimuth and magnetic observations,” probably made at the behest of his father, who was professor of mathematics and astronomy at Harvard.¹⁰ In the same year (1861) that Peirce officially joined the Coast Survey, according to Weiss, he devoted six months to “the study of the techniques of classification” with the Swiss-born biologist, Louis Agassiz. Such was Peirce’s early training in the physical sciences.¹¹

Taking into consideration the fact that Peirce set up his own chemical laboratory at the age of twelve, studied chemistry for three years at the Lawrence Scientific School following graduation from Harvard College, studied six months with the naturalist, Agassiz, worked 31 years as a scientist for the U.S. Coast Survey and was among the first to perceive the far-

9. *Ibid.*

10. *Ibid.*

11. For Peirce the physical sciences were physics, chemistry (or Chemology), biology, astronomy and geology (or Geognosy). The first studies the laws and forces of nature. The second classifies the kinds of matter. The third does the same for living organisms and their parts. Astronomy and Geognosy are the descriptive and explanatory sciences of the heavens and earth, respectively (see 1.258–259, 1902).

reaching implications of the idea of evolution, the claim made by Peirce that all his life he was a working physicist, trained in the methods of science, seems accurate in the highest degree.

From a philosophical point of view, this lifelong immersion in the physical sciences was a broadening experience, not a narrowing one (even if one were to assert that his preoccupation with physical science caused him to neglect the social). For it would be reasonable to argue that, had Peirce's interests leaned more in the social direction, given his training, he would have introduced the ideas of physics – e.g., evolution, continuity and fallibilism – and intruded his passion for facts, “the *force majeure* of Experience,” as he called it, into the study of social phenomena, applying to that study the methods of the successful sciences. (We must look beyond Peirce's preoccupation with “physics” to explain his neglect of the social science field.) To repeat, this immersion in the physical sciences was a broadening influence on Peirce. It shielded him from the superficialities of a Spencer and the positivism of the followers of Comte. It taught him to value right methods of inquiry, to look for broad hypotheses rather than exact mathematical laws, and to regard the individual investigator as eminently fallible. Nor did it in any wise dampen his enthusiasm for metaphysical speculation, just as long as the metaphysical proposition in question was susceptible of verification. This wedding of empirical science and metaphysics to produce a *scientific* metaphysics is what Peirce had in mind when, in 1897, he spoke of his philosophy as

the attempt of a physieist to make such conjecture as to the constitution of the universe as the methods of science permit. . . . Demonstrative proof is not to be thought of. The demonstrations of the metaphysicians are all moonshine. The best that can be done is to supply a hypothesis, not devoid of all likelihood, in the general line of growth of scientific ideas, and capable of being verified or refuted by future observers (1.7).¹²

12. Cf. “On the World in General,” *Transactions of the Charles S. Peirce Society*, 1968, v. 4, no. 2, pp. 90–99. Edward C. Moore, in a notable article on Peirce's metaphysics, is also struck by this passage. He asks, “What *would* happen if metaphysics took physics seriously?” (emphasis added). He then proposes to consider “the central doctrine of Peirce's metaphysics” – the doctrine that generals are real – in the light of contemporary science. We cannot do justice to Moore's entire argument which involves quantum physics, genetics, invertebrate anatomy, as well as relativity, but will confine our remarks to the latter. In relativity physics, Moore observes, the property of length is taken to be relative, relative, i.e., to the velocity of the observer. This is not to be construed so as to mean that there is no real length. Merely, “the property of length extends over a wide range of interpretations, any one of which may be selected by the observer if he only chooses the right velocity in relation to the object he is measuring.” That being the case, then the spatial dimensions of any object are no longer to be thought of as absolute or fixed. Indeterminate in themselves, they become determinate only in relation to a given inertial field. But “since the Lorentz transformation equations cover time and mass measurements as well as measurements of distance, these properties also become general properties.” *Ergo*, there

In the light of all that has been said, is there an explanation for the absence of illustrations from the field of natural science in the early (1867–68) writings of Peirce? Is there a reason why a working scientist, whose aptitude for positive science is of an unusually high order, should begin with *mental* phenomena? For that is what he does. Even the important logical paper, “On a Natural Classification of Arguments,” which preceded by a month the publication of the New List essay, with its three species of inference, deduction, induction and abduction or hypothesis, is an analysis – what we today might call a *description* – of the reasoning *process* (2.461–474). To repeat, he begins with mental phenomena, and this not accidentally; for Peirce is, by his own statement, which should not be lightly dismissed, working, in 1867, for the first time “reasonably, that is, under the control of a well-developed purpose.”¹³

No idealist interpretation, or misinterpretation, can explain Peirce’s decision to “go back to the things themselves,” as Husserl expressed it. Certainly, in the Cambridge where Peirce grew up, the idealistic temper was predominant. But because Peirce came to philosophy through the study of Kant (1.560), and because he was raised in Cambridge at a time when the ideas of Schelling were fashionable (6.102), it does not follow that he *therefore* early in his career adopted a metaphysical position which caused him to put physical science, with its conventional materialistic assumptions, in one compartment, and philosophy, with its interest in mental phenomena, in another. Such an explanation is excessively simple and, besides, it ignores certain facts. It was not uncommon, as Peirce himself noted (5.412), for men schooled in experimental science to learn philosophy “out of Kant.” “Nineteen out of every twenty experimentalists had done” so (*ibid.*), he stated in 1905. Moreover, one only has to reflect that this beginning with mental phenomena was the starting point of most of the philosophers whom Peirce had read in the early sixties, not only of Kant and the German idealist school, and of Berkeley, but also of Locke and Hume, who were not idealists.

Historical explanations have their utility in accounting for the genesis of philosophical positions but one of the least reliable is the *post hoc* variety which attributes great force to what a philosopher reads or is taught. Materialist philosophers will question it for its idealistic bias, idealists for its mechanical view of the dissemination of ideas. We shall therefore and provisionally

“are” general objects. I enclose the verb in quotation marks, for neither Peirce nor Moore would insist that the general exists in space-time, apart from its particular determination in an actual process or event. Avoiding the ambiguity of the word “is,” it would be safer to conclude merely that determination in the here-now does not exhaust the possibility of being. The general and the particular *co-exist*. Such a proposition would be consistent with a through-going, “synchistic” philosophy, such as Peirce envisioned, and seems strongly suggested by relativity physics.

13. Cf. letter to Francis Russell (1905). Unpub. mss.: L387.

view Peirce in his twenties as he saw himself: a physicist or experimentalist, trained in the methods of the scientific laboratory, with an equal and abiding passion for philosophy; and who saw even then the possibility of bringing together the special sciences (physics, biology, etc.) and the science(s) of philosophy to form a related whole.

What then constitutes his originality? “In the early sixties,” he wrote (4.2), “I was a passionate devotee of Kant. . . .” “From Kant,” he reminisced (1.560, 1905), “I was led to an admiring study of Locke, Berkeley, and Hume, and to that of Aristotle’s *Organon*, *Metaphysics*, and psychological treatises.” Only “somewhat later” (*ibid.*) did he turn to the medieval thinkers. The authors he admired most at this time (although he had read and pondered much of Descartes) were Kant and Aristotle, the British empiricists, Hobbes, Locke, Berkeley, and Hume, and toward the close of the period (1868), Ockham and Duns Scotus, whose “scholastic” realism contributed greatly to the formation of Peirce’s own view of reality (see 5.312, 1868, and 8.11–19, 1871).

Where Peirce goes beyond the philosophers he then admired most highly or studied closely is not, however, in aim or even in method. To bring together modern science and philosophy was equally the goal of Descartes, Hobbes, Spinoza, Locke and Kant. Even beginning with mental phenomena (the method) is not original with Peirce. It is implicit at the least in Descartes. Locke begins with “ideas” and purports to show that all our ideas, both simple and complex, hence, all our knowledge, both probable and certain, are founded on experience. Hume commences with impressions of sensation and of reflection, while the starting-point for Kant is the manifold of sensuous intuitions.

But how are we to explain the absence of illustrations from the field of natural science in the early (1867–68) writings of Peirce? It was *not* the result of a subjectivist bias. On the contrary, Peirce tried *first* to classify phenomena (i.e., appearances) “according to their matter” (1.289). “The two most passionately laborious years [1865–66] of my life,” he declared, “were exclusively devoted to trying to ascertain something for certain about the latter; but I abandoned the attempt as beyond my powers, or, at any rate, unsuited to my genius” (1.289). He had tried to do what Hegel had done, he wrote Victoria Welby: “My three categories . . .

resulted from two years incessant study in the direction of trying to do what Hegel tried to do. It became apparent that there were such categories as his. But bad as his are, I could substitute nothing radically better. Alongside of these, however, which may be called material categories, there are formal categories, corresponding to his three grades of thought.¹⁴

In speaking of his “short” list of categories, Firstness, Secondness and Third-

14. Ms L463 (draft of a letter to Victoria Lady Welby).

ness, in 1903, he remarks: "I by no means deny that there are other categories. On the contrary, at every step of every analysis, conceptions are met with which presumably do not belong to this series of ideas.

Nor did an investigation of them occupying me for two years reveal an analysis of them into their constituents (1.525).

The failure to produce a list of *material* categories, based on the principle of classifying phenomena "according to their matter," after two years of arduous study, should suffice to explain (1) Peirce's decision to analyze the phenomenon itself, and also (2) the absence of illustrations from astronomy, physics, chemistry, etc.

Summing up, what caused Peirce to "question" the phenomenon itself, was neither an unconscious idealistic prejudice nor a blind following in the footsteps of his predecessors, notably, Kant, Locke and Hume. For two years he made search for the material categories, that is, the categories of nature or natural science, and abandoned the attempt "as beyond my powers, or, at any rate, unsuited to my genius." But if in the analysis of physical phenomena he failed to discover the fundamental categories of nature and of thought, in the analysis of mental phenomena, more "suited" to his genius, he was to succeed.

What constitutes Peirce's originality, his independence from even the philosophers he admired most, was, as I shall try to show, his decision to begin with no presuppositions whatever.¹⁵ The best example of this is the paper, "On a New List of Categories," written in 1867. He will begin – not with Lockean "ideas," but with *whatever appears at any time in any way to the mind*. He will begin – not with other men's conceptions, but experience itself.¹⁶

I suppose therefore Peirce to have framed, more or less unconsciously, what Farber calls "the ideal of freedom from presuppositions."¹⁷ This would also explain Peirce's opposition to Cartesianism – more than two hundred years after the publication of *The Discourse on Method* and *Meditations* –

15. The following discussion owes much to Marvin Farber, *The Aims of Phenomenology* (N. Y., Harper Torchbooks, 1966).

16. In 1902, looking back on his work, Peirce writes:

In May 1867 I presented . . . a paper of ten pages . . . It was the result of full two years' intense and incessant application. It surprises me today that in so short a time I could produce a statement of that sort so nearly accurate . . . For this list of categories differs from the lists of Aristotle, Kant and Hegel in attempting much more than they. They merely took conceptions which they found at hand, already worked out. Their labor was limited to selecting the conceptions, slightly developing some of them . . . But what I undertook to do was to go back to experience, in the sense of whatever we have forced upon our minds . . .

Cf. Ms L75 (Carnegie Application, "Statement," pp. 2–3 of a longer draft with this heading).

17. *Op. cit.*, ch ii., pp. 18–42.

with its unexamined assumptions concerning the alleged mental powers of man.

Peirce's critique of Cartesianism is contained in two long papers written in 1868.¹⁸ The first, "Questions concerning Certain Faculties Claimed for Man," examines the presuppositions of continental rationalism. This examination results in four denials, the consequences of which are dealt with at length in a sequel paper, "Some Consequences of Four Incapacities." Only a few highlights from these papers, those bearing on Peirce's incipient phenomenology, will be given here. Concerning the power of introspection, Peirce writes:

1. We have no power of Introspection, but all knowledge of the internal world is derived by hypothetical reasoning from our knowledge of external facts (5.265).*

This criticism of *a priori* rationalism goes considerably further than Locke's, which was chiefly concerned with discrediting the doctrine of innate ideas. We have no *direct* knowledge of the internal world (our mental states) whatever, although we do perceive it as internal. This goes counter to the assumption made by Locke that at least some of our ideas come from reflection on the internal operations of the mind.

For example: We do not know that we see something by introspection. The knowledge that something *appears* red is "an inference from redness as a predicate of something external" (5.245, 1868). We are now at the border of the world of phenomenology. The knowledge that something appears to us as red is a complex inference, involving the abstraction of the quality, redness, from the observation of a red-colored object. The full analysis of this process will be found in the New List essay and need not detain us now. As with perceiving, our feelings or emotions are judgments about the outward world, inferences derived hypothetically from our knowledge of external facts. Thus, we find Peirce writing in 1868 (5.292): "But there is no feeling which is not also a representation, a predicate of something determined logically by the feelings which precede it. For if there are any such feelings not predicates, they are the emotions. Now every emotion has a subject. If a man is angry, he is saying to himself that this or that is vile and outrageous. If he is in joy, he is saying 'this is delicious.' If he is wondering, he is saying 'this is strange.' In short whenever a man feels, he is thinking of something." Here, *in virtuo*, is the phenomenological theory of intentionality.

18. For a full-length analysis of Peirce's critique of Descartes, see J. Buchler's basic work, *Charles Peirce's Empiricism* (N.Y., Harcourt, Brace & Co. 1939).

* It should be pointed out that Peirce makes no assumption concerning the reality of the external world but merely asserts that there exists "a certain set of facts . . . usually regarded as external, while others are regarded as internal" (5.244, 1868).

Did Peirce *actually* hold such a theory of consciousness?¹⁹ It seems to follow as a corollary from the proposition that “all knowledge of the internal world is derived by hypothetical reasoning from our knowledge of external facts.” We shall revert to this theme when we come to Peirce’s Phaneroscopy (or analysis of the phenomenon/phaneron) in Chapter V of this study.

Let us now examine Peirce’s second denial.

2. We have no power of Intuition, but every cognition is determined logically by previous cognitions (5.265).

Peirce’s denial that we have any faculty of intuition involves the further claim that we have no *intuitive* self-consciousness, or knowledge of ourselves. The recognition of my *private* self is the result of inference and determined by previous cognitions of external facts, just as much as was perception and feeling. Let us use Peirce’s illustration. A child, on hearing the stove is hot, thinks it is not. Matching thought with action, he reaches out and touches it; and, in the words of Peirce, “finds the testimony confirmed in a striking way. Thus, he becomes aware of ignorance, and it is necessary to suppose a *self* in which this ignorance can inhere” (5.233). So, “ignorance and error are all that distinguish our private selves from the absolute *ego* of pure apperception” (5.235).²⁰

Nor is there any reason for supposing an intuitive power for distinguishing between the subjective elements of different kinds of cognition. Respecting sensing, and imagining or dreaming “the very fact of the immense difference in the immediate objects, e.g., a color seen and a color imagined of sense and imagination, sufficiently accounts for our distinguishing those faculties . . .” (5.241). Passing to the distinction between conceiving and believing, Peirce writes: “if belief is taken in the active sense, it may be discovered by the observation of external facts and by inference from the sensation of conviction which usually accompanies it” (5.242). In other words, unlike a mere conception, a *belief*, apart from the fact that it is accompanied by a feeling of conviction, is a judgment on which a man will *act*. This early statement of the relation between belief and action, found in the 1868 papers, seems to be an anticipation of Peirce’s Pragmatic principle and agrees with his 1906 formulation that “intellectual concepts . . . essentially carry some implication concerning the general behavior either of *some conscious being* or of some inanimate object” (5.467, emphasis added).

19. Peirce, apparently, had no knowledge of Franz Brentano and the Brentano school. At any rate, no mention of Brentano is to be found in the *Collected Papers*. Except for a footnote in which he couples the name of Husserl with Wundt, Sigwart, Schuppe, Erdmann, Bergman and Glogau as German logicians “who seldom notice fallacy” (2.152), and a reference to the *Logical Investigations*, Pt. I, in connection with psychologism (4.7), we find no mention of Husserl.

20. But does the absolute ego of pure apperception (the *I think*) have substantive existence? The answer to this question cannot be drawn from this passage.

Peirce's empiricism could not be shown in a stronger light: all our knowledge, even our knowledge of the internal world and our selves, is derived from observation of external facts. But is it itself free from uncritical presuppositions? As has been pointed out by Farber, "Empiricism also aimed at freedom from presuppositions, using particular facts and observations as the source of knowledge. . . . But the strict application of the method of empiricism, which would mean the restriction to what is given in sensory experience, would be inadequate for purposes both of science and philosophy. That it actually does make the use of assumptions is well known."²¹ We must therefore ask, to what degree is Peirce successful in avoiding the assumptions made by his predecessors in the empirical tradition, e.g., Aristotle, Locke, Hume and Kant?

Let us commence with Aristotle, with whom Peirce identified closely.²² Unlike the former, Peirce does not hold that the primary premises of scientific demonstration are either (a) in some sense immediate, (b) independent of demonstration or (c) necessary truths.²³ That is the usual reading of Aristotle. But, concerning (a), it is not altogether clear what Aristotle meant by "immediate." If, on the one hand, as Aristotle tells us,²⁴ the method by which we discover first principles is Induction, it is difficult to understand how the basic truths of a demonstrative science are immediately apprehended. If, on the other hand, by Intuition or *Nous-ing* is meant actually seeing the universal in the particular, as Aristotle also tells us,²⁵ then it is possible that Peirce's Abduction (hypothetical inference) and Aristotle's *Nousing* meant much the same thing.

This *seems* to have been the opinion of Peirce, who disputes the usual reading of Aristotle, alleging that the latter, in his *Prior Analytics*,²⁶ had distinguished not one but two basic forms of synthetic inference, the first being *Epagogē*, or Induction, and the second, *Apogogē*, Abduction or Hypothesis. Owing to the insertion of a single wrong word, an emendation made by a blundering editor, according to Peirce, the real meaning of *Apogogē* was lost.²⁷

Whatever the merit of this fanciful interpretation, it seems to have been Peirce's early conviction that the first principles of the synthetic sciences were of the nature of *hypotheses*, whose consequences could be deduced and

21. *Op. cit.*, p. 19.

22. Cf. C. P. 5.79, fn. 1: "A great variety of thinkers call themselves Aristotelians," he wrote. "... I should call myself an Aristotelian of the scholastic wing, approaching Scotism, but going much further in the direction of scholastic realism."

23. *Post. An.*, I, i & iv.

24. *Ibid.*, II, xix.

25. *Ibid.*

26. Bk. ii, chs. 23–25.

27. See Peirce's discussion, C. P. 7.248–53.

subsequently confirmed or refuted by the method of induction.²⁸ Nor is it likely that Peirce's training in the sciences and his empirical temper would have allowed him to assume that there are necessary synthetic truths. The question of whether there are any would always be open to investigation.

Summing up, for Peirce "primary" premises or the first principles of philosophy and science are mediate, not immediate; hence, inferred. As kinds of hypotheses, they would not be independent of demonstration, as Aristotle supposed, but "capable of being verified or refuted by future observers" (1.7). It would further follow that the laws or principles of a theoretical science (other than pure mathematics or formal logic) need not, although they might, be exact, certain or absolute.

Holding the first principles of philosophy and natural science to be hypotheses, to be tried at the bar of experience, did not lead Peirce, at least immediately, to question the mechanical philosophy of his day with *its* presupposition that every event is precisely determined by law. That would come much later. But it did influence him to take a new view of the nature of inquiry. "[T]o make single individuals absolute judges of truth," he wrote in 1868, "is pernicious. . . . In sciences where men come to agreement [unlike metaphysics], when a theory has been broached,

it is considered to be on probation until this agreement is reached. After it is reached, the question of certainty becomes an idle one, because there is no one left who doubts it. We individually cannot reasonably hope to attain the ultimate philosophy which we pursue; we can only seek it, therefore, for the *community* of philosophers.

.....
Philosophy ought to imitate the successful sciences so far as to proceed only from tangible premisses which can be subjected to careful scrutiny, and to trust rather to the multitude and variety of its arguments rather than to the conclusiveness of any one (6.265).

Passing to Locke, we find that Peirce differed from the latter by commencing with the phenomenon in its first presentation, *before* reflection takes place. He begins, that is, not as Locke did, with "ideas, such as are expressed by the words whiteness, hardness, sweetness, thinking, motion, man, elephant, army, drunkenness, and others."²⁹ but with whatever is present to the mind. Thus, Peirce avoids Locke's too facile assumption that our "simple" ideas

28. The division of inference into three main types, deduction, induction, and hypothesis, was first made by Peirce in 1867 in his paper, "On the Natural Classification of Arguments" (C. P. 2.461-516). The final sentences read: "Thus probable inference is related to apagogical proof, somewhat as the third syllogistic figure is related to the second. Among probable inferences, it is obvious that hypothesis corresponds to the second figure, induction to the third, and analogy to the second-third."
29. *Essay Concerning the Human Understanding*, Bk. II, ch. i, Sec. 1.

of sense are *given as such* in perception. As for Hume, Peirce questions the latter's assumption that we have simple impressions, atomic sensations from which our ideas are copied. This is consonant with what Peirce had been arguing in his essays on the mental faculties of man. If every cognition is determined logically by previous ones (although, in fact, we are unconscious of this process in such acts as perception), and further, all our knowledge of the internal world, as well as our knowledge of first principles, is of the nature of hypotheses, there are no absolutely first cognitions or "first impressions of sense."³⁰ Rather, cognition arises in a continuous process. While the phrase "first impressions of sense" does not occur in the writings of Hume, the expression seems to be a gloss of Hume's "original impressions or impressions of sensation,"³¹ and the attack on "first impressions" or psychological atomism may be seen as directed against Hume's theory of knowledge.

We come last to Kant. If the requirement of freedom from presuppositions is to hold in a strict sense for theory of knowledge, then Kant's great work, *The Critique of Pure Reason*, from the start is not presuppositionless. For he bases his table of categories on the table of logical judgments drawn from the logic of Aristotle. But this is not the case with Peirce. In the 1867 paper on the categories he founds logic itself on his three elementary categories. "I shall now show," he wrote (1.559), "how the three conceptions . . . are the fundamental ones of at least one universal science, that of logic."

If Peirce's derivation of the basic categories, by going "back to the things themselves," involves no presuppositions, no prejudgments about "things" in the external world (whether *noumena* or "unknown causes" originary of sensation), or transcendental egos "doing" the thinking, then Peirce has already taken a step beyond Kant. An examination of the 1867 paper should decide this question. If it proves that Peirce was indeed free of "metaphysical, natural-scientific, and psychological presuppositions,"³² that would establish our contention that the paper of 1867 was revolutionary in approach

30. Cf. 5.291 (1868): "That a sensation is not necessarily an intuition or first impression of sense, is very evident in the case of the sense of beauty, and has been shown (5.222) in the case of sound. . . . The sensation of beauty arises upon a manifold of other impressions. . . . [T]he sensation *so far as it represents something* is determined, according to a logical law, by previous cognitions; that is to say, these cognitions determine that there shall be a sensation. But so far as the sensation is a mere feeling of some sort, it is determined only by an inexplicable occult power; and so far, it is not a representation."

31. *Treatise*, Bk. ii, Pt. i, Sec. i.

32. I purposely use Farber's language. See his discussion of Husserl's *Logical Investigations*, *op. cit.*, p. 32. "There is no assertion concerning real existence and hence no use can be made of premises drawn from metaphysics or natural science, especially psychology. It is this metaphysical, natural-scientific, and psychological freedom from presuppositions, and no other kind, that Husserl proposed to realize at this time."

and deserves close scrutiny. This brings us to the next point, enough having been said about the historical importance of the early writings, Peirce's scientific training and his early philosophical studies.

2. *The special nature of the paper, "On a New List of the Categories"*

Granted that this essay was the first published account of Peirce's Doctrine of the Categories. That historical circumstance, as we have noted above, would make it important. But the fact in itself would not make the paper unique. The doctrine of the categories is expounded in detail many times in many places and in many contexts in Peirce's collected writings.³³ It appears, however, that nowhere in the many accounts which Peirce has given us is the same material covered, as was covered in the New List essay; and that is very curious. Looking through the *Collected Papers*, we find only one description of the way the categories were actually derived, and that is in the 1867 essay and one of its preliminary drafts.³⁴ Is there an explanation? I think there is and it is contained in the following, thinly-veiled autobiographical passage, written in 1903:

It is the business of *Phenomenology*, or the Doctrine of the Categories . . . to unravel the tangled skein of all that in any sense appears and wind it into distinct forms . . . to make the ultimate analysis of all experience the first task to which philosophy has to apply itself. It is . . . perhaps the most difficult of its tasks, demanding very peculiar powers of thought, the ability to seize clouds, vast and intangible, to set them in orderly array, to put them through their exercises. The mere reading of this sort of philosophy . . . is not easy. Anything like a just appreciation of it has not been performed by many of those who have written books. Original work in this department, if it is to be real and hitherto unformulated truth, is – not to speak of whether it is difficult or not – one of those functions of growth which every man, perhaps, exercises once, some even twice, but which it would be next to a miracle to perform a third time (1.280).

Perhaps Peirce performed this work twice, but it is doubtful. For the second attempt, if such it was – "The List of Categories: A Second Essay,"³⁵ dated ca. 1894 by Hartshorne and Weiss; and a similarly titled paper, with the additional designation of "X,"³⁶ also dated ca. 1894 – does not reproduce

33. Five different accounts appear in C. P. I, Bk. iii, "Phenomenology;" C. P. II contains one (2.84–89); C. P. V, two (5.37–62 and 5.93–107); C. P. VI, one (6.18–20, 6.32–34); C. P. VII, two (7.528–637 and 7.542–551); and C. P. VIII, three (8.264–269, 8.303–305 and 8.328–331). There is also a fifteenth account in C. P. I, Bk. i (1.23–26).

34. Preliminary Draft II, reprinted in its entirety in Murphey's *Development of Peirce's Philosophy* in an Appendix, pp. 411–414.

35. Cf. C. P. I. 300–301, 293, 326–329. Only these fragments were reprinted by the editors.

36. Cf. C. P. I. 302, 325, 338–339, and 340–342, which are from a fragment, "Thirdness," ca. 1895

the first. The later papers *begin* with the ideas of First, Second and Third and apply them to *being* (1.300); while the New List essay commences with “the present, in general” (1.547), and therefrom derives the *categories*.

This uniqueness may explain why Peirce himself placed such a high valuation on the New List essay.

Writing to William James in 1904, Charles Peirce described the paper as being “almost perfect.” It was, in his opinion, “one of the most perfect gems of all philosophy.”³⁷

Peirce maintained a high regard for this early, closely argued treatise all his life. In 1905, to Mario Calderoni, a fellow pragmatist living in Italy, he spoke of it as his “one contribution to philosophy;” which was, if possible, he added, “even less original than my maxim of pragmatism” (8.213). To H. H. D. Peirce, he wrote (1905): “Writing to my brother, I can permit myself to say that my strongest philosophical works were a paper of May 14, 1867, *On A New List of Categories*, and a paper which appeared . . . in 1868 called *Some Consequences of Four Incapacities*. . . .”³⁸ Forty-one years after its composition, in the draft of a letter to a long-time friend Judge Francis C. Russell, Peirce characterized the article of 1867 as his “central achievement.”³⁹

The Russell letter of 1908, written six years before the philosopher’s death at 75, indicates Peirce’s life-long interest in logic. It also reveals something of significance about the relation between logic and the doctrine of the categories. For these reasons the letter deserves further quotation.

I will therefore make some notes on my own work in logic, in which, as I myself think, my strong point is my power of logical analysis, or definition. I began working intelligently, or as I generally phrase it, “reasonably,” that is to say, under the dominance of a well-matured purpose, so that my work has been, ever since, what I mean by “self-controlled” . . . early in the year 1867, when I already had in mind the substance of my central achievement, the paper of May 14 of that year, “On a New List of Categories.” But in some respects, the doctrine of that paper has greatly grown and developed in the intervening years. It was not until the next year, I think, that I took up seriously the logic of relations. . . .

Logic had several meanings for Peirce. In its narrower sense (adapting an idea suggested by Benjamin Peirce),⁴⁰ it was the science *of* drawing necessary (or probable) conclusions. In the letter to Russell, however, logic is viewed as a tool or *organum* for conceptual analysis and deliberate thought. One of its issues in Peirce’s case was the famous logical principle of pragmatism, or the rule for defining our more abstract or intellectual ideas. Another was Peirce’s “natural” classification of arguments into three main types, deduc-

37. Letter to W. J., from Peirce’s unpublished mss.: L224.

38. Letter to H. H. D. Peirce, Unpub. mss. 845, p. 26.

39. Letter to Francis C. Russell, Unpub. mss.: L387.

40. Benjamin Peirce, Peirce’s father, who taught mathematics and astronomy at Harvard, defined mathematics as “the science *that* draws necessary conclusions.”

tion, induction and abduction, to which we have already drawn attention.⁴¹ This put in proper perspective the important role played by hypothetical inference in scientific thinking, a fact obscured by earlier philosophers of science.

To treat logic in general, however, as a quest for method leads directly to its being conceived as a normative science. And so it was defined (1.191) by Peirce in 1903.

Logic is the theory of self-controlled or deliberate thought. As such it must appeal to ethics for its principles.

He goes on to say:

It also depends upon phenomenology and mathematics.⁴² All thought being performed by means of signs, logic may be regarded as the science of the general law of signs. . . .

The notion of logic as an aid to scientific investigation and an organum for reason, which lays down rules for the improvement, clarification and correction of the understanding, is no historical novelty. It was so understood by the Greeks, by Plato and Aristotle.⁴³ In modern times we have only to think of Descartes, Leibniz and Spinoza, not to mention Bacon and Galileo, to find philosophers who saw the value of right method. Kant is no less exemplary although he looked less for a *novum* organum that would extend the powers of reason than for a practical canon which would determine its range and its limits. From the historical viewpoint, therefore, there is no justification for restricting logic to purely formal analysis.⁴⁴

Of this Peirce was exceedingly aware. "It ought," he wrote in 1903, "for the realization of its germinal idea, to be *l'art de penser*. *L'art de penser!* What a sublime conception! A school to which an age can turn and learn the most efficient method of solving its theoretical problems! Such is the idea of logic. . . . Let it aspire in each age to register the highest method of thinking to which that age actually attains, and it will be doing all that can be expected" (4.46).

This conception may be further generalized by repeating what has been written against the practice of restricting logic to any one method of philos-

41. See especially footnote 28.

42. Examples of mathematical applications to logic are the logic of relations, the two-valued propositional calculus or "dichotomic mathematics" (4.250–306) and probability theory, which is "simply the science of logic quantitatively treated" (2.647).

43. Cf. Husserl, E., *Formal and Transcendental Logic* (The Hague, Martinus Nijhoff, 1969), p. 7f.

44. There are historical *explanations*, however. For example, the development of logic in the direction of formal analytics and refutation, at the time of Plato and Aristotle, may have arisen in response to the challenge of the growing sophistic movement to philosophy. See Farber, *Basic Issues of Philosophy* (N. Y.: Harper Torchbooks, 1968), p. 29.

opical investigation. "A complete logic, inductive and explanatory as well as deductive, is required for the methodology of philosophy; but not a narrow logic, concerned primarily with the formation and transformation of sentences. . . . It is necessary to apply the concept of logical method so broadly that no well-defined procedure is ruled out. In the broad sense intended here such procedures as the dialectical method and the phenomenological method are to be grouped under the general heading of logic as methodology, with the requirement," Farber adds, "that they be subject to the canons of logical method."⁴⁵

As the Russell letter of 1904 makes clear, Peirce's search for the categories *preceded* his most original work in mathematical logic. "It was not until the next year, I think," Peirce had written, "that I took up seriously the logic of relations."⁴⁶

This is an important fact to bear in mind in tracing the development of Peirce's philosophy. Considering Peirce's great logical powers and his early interest in that subject, commentators have been led to assert, as was pointed out in Chapter I of this study, that his early work in formal logic was the ground upon which the new list of categories was erected. Whether, in actuality, his logical studies, considerably advanced by 1867, had great heuristic value is a question to which no definitive answer can be given. Certainly, the presence of triads in reasoning had not escaped his notice.⁴⁷ Nor was he unaware then of the pioneer work done in the logic of relations by Augustus De Morgan.⁴⁸ The question, however, of whether, *in fact*,

45. *Basic Issues of Philosophy*, pp. 37-38.

46. See above, p. 32.

47. Unpub. mss. 439 (1898). "In 1866. . . I had clearly ascertained that the three types of reasoning were Induction, Deduction, and Retroduction. . . My formal logic was marked by triads in all its principal parts. There are three types of inference, each having three propositions and three terms. There are three types of logical forms, the term, the proposition and the inference. Logic is itself a study of signs. Now a sign is a thing which represents a second thing to a third thing, the interpreting thought. There are three ways in which signs can be studied. . ."

48. "It must have been in 1866 that Professor De Morgan," wrote Peirce (1.562), "honored the unknown beginner in philosophy. . . by sending me a copy of his memoir 'On the Logic of Relations, etc.' I at once fell to upon it; and before many weeks had come to see in it. . . a brilliant and astonishing illumination of every corner and every vista of logic. . . A short time sufficed to furnish me with mathematical demonstration that indecomposable predicates are of three classes. . ." This mathematical proof, often alluded to by Peirce, has never been found. Written in 1905, the passage, the only one of its sort in the published corpus of Peirce's writing, is vague as to dates. It begins, "It must have been in 1866. . ." and the expression "a short time" is equally imprecise. Other excerpts from Peirce's writings do not support it. We already have Peirce's statement to Russell (see p. 32 above) that it was not until 1868 that he took up "seriously" the logic of relations. This is further corroborated by a fragment (1.564, ca. 1899), referring to his division of signs into icons, indices and symbols. "At the time I first published this division in 1867 [in the New List paper], I had been studying the logic of relatives for such a short time that it was not until three years later that I was ready to go into print with my first memoir on that subject. . ."

Peirce's phenomenology derived its first principles from logic; or, as Peirce later contended, logic, and philosophy itself, must be founded on phenomenology, can be answered conclusively.

The answer is given in a preliminary draft (Draft II) of "On a New List of Categories."⁴⁹ What is the chief value of logic? wonders Peirce. Here it is a philosopher who is reflecting, not a formal logician. "No study seems so trivial as that of formal logic," he reflects, "not only at first sight but until after long research. It is far too indeterminate to be of much use in actual reasoning, and . . . too simple to interest like mathematics with its involutions and resolutions of forms."⁵⁰ Nonetheless, it has "a deep significance," which was best sensed by Aristotle and Kant.

It is the circumstance that the commonest and most indispensable conceptions are nothing but the objectifications of logical forms.

"The categories of Kant," Peirce goes on to explain, "are derived from the logical analysis of judgments, and those of Aristotle (framed before the accurate separation of syntax and logic) are derived from a half-logical, half-grammatical analysis of propositions." Now we see what the chief task of logic is and what constitutes its main and enduring value: to form a list of those "commonest and most indispensable conceptions"; in short, "to form a table of categories."⁵¹

But this statement by Peirce is confusing. In a "logical analysis" of judgments, how do we come by our notion of "judgment"? In a "logical analysis" of propositions, how do we come by our notion of "proposition"? These questions cannot be answered by an appeal to formal logic. The business of ascertaining the categories of logic and of all thought would therefore be the task of a *pre-logical* study. In the context here, of course, Peirce is using "logic" in its widest sense to cover *any* analysis (deliberate thought) including those prelogical investigations on which pure logic – the logic of terms, propositions, and arguments – is founded.

The memoir, entitled "Description of a notation for the logic of relatives. . ." was published in the *Memoirs of the American Academy*, ix, pp. 317–378 (presented Jan. 26, 1870). Taken altogether – the Russell letter, and the two notes written in 1899 and 1905, respectively, do not conflict; but rather, seem to indicate that Peirce's study of the logic of relations had just begun at the time (1867) when he had already thought through the problem of the categories. In a note written in 1898 Peirce claims that his logical studies in 1867 were "still incomplete" and that it was afterwards that "I discovered the logic of relatives" (4.4). It was his belief that he was the first discoverer. Here Peirce claims that De Morgan sent him his memoir after Peirce had developed his own logic of relations.

49. This draft does not appear in the *Collected Papers*. It is reprinted in its entirety in an Appendix to Murphey's *Development of Peirce's Philosophy*, pp. 411–414. Preliminary Drafts I, III and IV are also reproduced in the same appendix.

50. *Ibid.*, p. 412.

51. *Ibid.*,

Aristotle begins his analysis with naming and forms of speech, or linguistic way of signifying things.⁵² Forms of speech are either simple or composite, the former comprising uncombined, linguistic expressions as “man,” “runs,” “sits,” etc.; the latter comprising all sentences, or significant portions of speech, combining nouns and verbs. This subject-predicate analysis of sentences is “the half-grammatical,” to which Peirce refers. And it may properly be termed *pre-logical*. It leads to the formation of a list of types of simple linguistic expressions which can be predicated of a subject and are applicable to being, i.e., primary substances or real things. These are the categories of Aristotle. Thus, “man” names an individual or substance, “runs,” an action or activity, “sits,” a position, and so on.

But it is precisely this step, the pre-logical, taken by Aristotle, which Kant neglects to make. Referring back to Peirce’s preliminary Draft II, we find him there writing:

Kant first formed a table of the various logical divisions of judgments, and then deduced his categories directly from these. For example, corresponding to a categorical form of judgment is the relation of substance and accident. So far the method is perfect.

Now comes Peirce’s criticism.

Its defect is that it affords no warranty for the correctness of the preliminary table, and does not display that direct reference to the unity of consistency [i.e., to actual thinking or meaning] which alone gives validity to the categories.⁵³

Peirce’s criticism of Kant is not that the latter was wrong in deriving his categories from a table of logical judgments, divided according to quality, quantity, relation and modality; his error lay in not undertaking to found his table on a *prior* analysis of the forms of judgment.

In sum, Aristotle chose as his starting-point the Greek language, which had been analyzed by others before him, while Kant began with traditional formal logic, which had been handed down from antiquity. Peirce’s mode of procedure was to be different and far more difficult, as he himself recognized. In a statement written in 1902, explaining his original list, he wrote:

[T]his list of categories differs from the lists of Aristotle, Kant and Hegel in attempting much more than they. They merely took conceptions which they found at hand, already worked. Their labor was limited to selecting the conceptions, slightly developing some of them, arranging them, and in Hegel’s case, separating one or two that had been confused with others. But what I undertook was to go back to experience, in the sense of whatever we find to have been forced upon our

52. *Categories*, i-ii.

53. *Op. cit.*, p 412.

minds, and by examining it to form clear conceptions of its radically different classes of elements, without relying upon any previous philosophizing at all. . . .⁵⁴

"This was," he added, "the most difficult task I ever ventured to undertake." Later in the statement, an application for support to the Carnegie Foundation, Peirce makes the same point in slightly different terms, this time referring to "the universal phenomenon" and not to experience. The two passages, when compared, do not conflict but reinforce each other.⁵⁵

We may summarize the foregoing in the following way. According to Peirce, Kant fails to undertake any pre-logical analysis prior to accepting a table of logical judgments from which his set of categories could be deduced. Thus, "he affords no warranty for the correctness of the original table." Aristotle commences with "a half-grammatical, half-logical analysis" of composite forms of speech, deriving a list of ten types of simple linguistic expressions predicable of a subject. These he calls categories, or predicaments. Peirce, however, makes his "one contribution to philosophy" neither with logic nor language but "experience" itself. His categories, he contends, rest on no "previous philosophizing at all." By going "back to experience, in the sense of whatever we find to have been forced upon our minds," he introduces a new method: phenomenological analysis, or the analysis of the phenomenon; meaning by the *phenomenon* in 1867, "what is present in general . . . the general recognition of what is contained in attention" (1.546, "On a New List of Categories"). Compare this with Peirce's later definition of the phenomenon as "whatever is present at any time to the mind in any way."⁵⁶

A return to the phenomenon, unmediated by linguistic constructions (Aristotle's starting-point) or a given system of logic (Kant's point of departure) constitutes the originality of Peirce's "On a New List of Categories." Before taking up that paper, we will close this section with a passage written by Husserl:

Everything that makes a philosophical beginning possible we must acquire by ourselves. Whether, later on, a genuine science similar to traditional logic will

54. Ms L 75 (Carnegie Application, "Statement," pp. 3-4 of the longer draft with that heading). This statement, like Russell's letter and the passage incorporated in footnote 17, was brought to my attention by Max H. Fisch.

55. Ms L 75. Describing to his would-be sponsors a projected memoir, to be entitled "On the Categories" – the entire project was turned down – Peirce again refers to his work of May, 1867, and again to Aristotle, Kant and Hegel. "All those philosophers contented themselves mainly with arranging conceptions which were already current. I, on the contrary, undertake to look directly upon the universal phenomenon, that is upon all that in any way appears, whether as fact or as a fiction; to pick out the different kinds of elements which I detect in it. . . and to form clear conceptions of those kinds, of which I find that there are only three. . ."

56. This definition was not written until 1903, when the idea of a science of phenomenology had fully developed in Peirce's mind. It is the writer of this monograph's belief, in the light of all the evidence, that the *idea* was implicit in Peirce's thought from the year 1867 onward.

accrue to us is an eventuality about which we can at present know nothing. . . . Let us fix, for our whole further procedure, a *first methodological principle*. It is plain that I, as someone beginning philosophically, since I am striving toward the presumptive end, genuine science, must neither make nor go on accepting any judgment as scientific *that I have not derived from evidence*, from “experiences” in which the affairs and affair-complexes in question are present to me as “*they themselves*.”⁵⁷

3. *The Doctrine of the Categories*

The *new* in the title of the New List paper does not refer to a previous attempt by Peirce to formulate a set of categories⁵⁸ but, as we have seen, to the categories of Aristotle and especially those of Kant.⁵⁹ As for Hegel’s work, with which Peirce had some slight acquaintance, Peirce then had little sympathy.⁶⁰

The influence of Kant is apparent in the very first sentence of the New List essay. “This paper,” Peirce wrote in elegant Journal style, “is based upon the theory already established that the function of conceptions is to reduce the manifold of sensuous impressions to unity. . . .” So far, good Kant. But let us finish the sentence: “and . . . the validity of a conception consists in the impossibility of reducing the contents of consciousness to unity without the introduction of it” (1.545). Right away, in spite of similarities of expression, we detect a genuine difference in the thinking of Peirce and Kant.

When the latter speaks of categories, he means those concepts, twelve in number, corresponding to the functions of judgments tabulated in the Transcendental Analytic. While any one is indispensable for understanding – “per-

57. *The Cartesian Meditations* (The Hague: Martinus Nijhoff, 1960), p. 13. Emphases in the original.

58. Cf. Murphey, *The Development of Peirce’s Philosophy*, in which is discussed a triad of concepts, I – Thou – It, discovered in an unpublished and uncollected paper by the youthful Peirce in 1859 when he was 20 years old. Murphey points out a parallel between the Peircean triad and the three transcendental ideas of pure reason in Kant’s critique.

59. “In the early sixties,” Peirce wrote retrospectively at the close of the century, “I was a passionate devotee of Kant, at least as regarded the Transcendental Analytic in the *Critic of Pure Reason*. I believed more implicitly in the two tables of the Functions of Judgment and the Categories than if they had been handed down from Sinai” (4.2).

60. Referring to his knowledge of Hegel in the sixties when the New List was composed Peirce wrote: “Hegel, so far as I knew him through a book by Vera, *Introduction à la philosophie de Hegel*, Paris (1855) repelled me” (4.2). This appraisal was drastically revised in later years, so much so, in fact, that we find him writing in 1905 that “my three categories are nothing but Hegel’s three grades of thinking” (8.123). Peirce, however, acknowledged no indebtedness to Hegel. While admitting that his method bore “a general similarity to Hegel’s,” he stated: “It would be historically false to call it a modification of Hegel’s. It was brought into being by the study of Kant’s categories and not Hegel’s” (1.544, 1903).

cepts without concepts are blind” – none, however, is so broad as to accompany all thinking, which is Peirce’s first stipulation.⁶¹

In fine, what Peirce is attempting to do in the New List paper is to describe only those universal, elementary conceptions, present to the mind whenever anything appears to it. They will be *formal* and universal. In contrast, Kant’s categories are material and particular. This becomes clear when, using Kant’s categories, we analyze a simple proposition or logical judgment as “This stove is black.” The experiential judgment has been subsumed under *one* category of relation only, the concept of substance and accident, one category of quantity, that of totality, one category of quality, that of reality; and so on. By generalizing the case, we see clearly that only some, not all, of Kant’s categories are necessary for an object of consciousness to be thought. For example, in the judgment, “A strikes B,” the substance-attribute relation is superfluous. This same reasoning applies also to Aristotle’s list. The predicate “strikes” belongs predominantly to the particular category of Action. Thus, the lists of both Aristotle and Kant are particular, not universal. Peirce realized that his list of categories differed from Kant’s in precisely this respect, as the following passage shows:

The particular categories form a series, or set of series, only one of each series being present, or at least predominant, in any one phenomenon. The universal categories, on the other hand, belong to every phenomenon, one being perhaps more prominent in one aspect of that phenomenon than another but all belonging to every phenomenon. (5.43, 1903).

Two sentences later he refers to Kant’s categories:

But in Kant we have Unity, Plurality and Totality not all present at once; Reality, Negation and Limitation not all present at once; Inherence, Causation and Reaction not all present at once. . . . On the other hand, Kant’s four greater categories, Quantity, Quality, Relation and Modality, form what I should recognize as Kant’s Universal Categories.

The distinction made by Peirce between two orders of categories is not dealt with by Kant, however, for the latter states unequivocally that “the true fundamental concepts of the pure understanding” are those which are listed in the tables of the Categories.⁶² To be sure, for Kant each category or *predicament* has pure but derivative concepts, called *predicabilia*.⁶³ None-

61. “The validity of a conception consists in the impossibility of reducing the contents of consciousness to unity without the introduction of it.”

62. *Critique of Pure Reason*, A: 79–83.

63. *Ibid.* For example, under the category of causality we may place the *predicabilia* of force, of action and of passion; under the category of community, the *predicabilia* of presence and resistance; and so forth.

theless, both sets are particular categories, the first being, for Kant, fundamental, the second, merely derivative.

Thus, we see that the important qualification contained in the opening sentence of Peirce's essay, stating that the validity of a conception lies in "the impossibility of reducing the contents of consciousness to unity" without it, is certain to lead to a table of categories different from Kant's. To search for such *universal*, elementary conceptions pervading *all* thought, constitutes the first example of Peirce's divergence from Kant. A second will be discussed when we come to examine Peirce's first universal conception.

Let us return now to Peirce's original statement.

1.546. This theory gives rise to a conception of gradation among the conceptions which are universal. (For one such conception may unite the manifold of sense and yet another may be required to unite the conception and the manifold to which it is applied; and so on.)

The theory assigning to conceptions the function of reducing sense impressions to the unity of a proposition or judgment is Kantian. This process of reduction has a beginning and an end. In between lie the intermediate categories or elementary conceptions which are joined to the first and are prior to the last. Thus, there is a gradation or order of conceptions. The first, named "substance" by Peirce, is applied to the manifold itself (1.547); the last, called "being," "completes the work of conceptions of reducing the manifold to unity" (1.548). Substance and being, in the words of Peirce, are "the beginning and end of conception." What will concern Peirce in his New List of Categories is determining the *intermediate* categories, lying between these two poles. Thus, his search for the categories begins with a description of the first conception and is immediately followed by an analysis of the last.

1.547. That universal conception which is nearest to sense is that of *the present in general*. This is a conception because it is universal. But as the act of *attention* has no connotation at all . . . so the conception of *what is present in general*, which is nothing but the general recognition of what is contained in attention, has no connotation, and therefore no proper unity.

The conception which Peirce describes is what he will later call Firstness: the present in general, or pure immediacy. That conception, which is nearest to sense, is a moment in thought. It is not abstraction but "the *general* recognition of what is contained in attention" and corresponds to Kant's manifold of sensuous impressions. A moment in thought, a stage in thinking, complete in itself, it has no proper unity, *proper* to the understanding, which is analytic, dividing the manifold, and synthetic, uniting the abstracted elements, so as to give final meaning to what is present to consciousness in the original act of attention. Thus, it has no connotation. The word "recogni-

tion” in the phrase above is ambiguous, for it often implies the act of reflection itself. What is given in sense immediacy, however, is unmediated, unreflected upon. To that extent it is “general,” being totally undifferentiated. To that extent it is First. It has no parts. Let us continue with Peirce’s description.

This conception of the present in general, of IT in general, is rendered in philosophical language by the word “substance” in one of its meanings. Before any comparison or discrimination can be made between what is present, what is present must have been recognized as such, as *it*, and subsequently the metaphysical parts which are recognized by abstraction are attributed to this *it*, but the *it* cannot itself be made a predicate.

Recognizing the present in general as such, as *it*, precedes discrimination or comparison. It is for Peirce, as for Husserl, plainly *pre-reflective*. Recognition of the “metaphysical parts” is obtained by abstraction. Only when the abstracted quality, a metaphysical part, is separated from the IT in general by abstraction, and is compared with the *it* in the unity of a single consciousness (the Kantian “I think”) does cognition proper take place. This is developed later in the essay. What concerns us here is the *connectedness* of the manifold of sensuous impressions. The present in general is a totality, absolutely undifferentiated. It has no parts. It is pure denotation, in which there is no conception of *object*, for that would be a second. It is entirely without connotation, since connotation would involve a third, namely, an interpreting *thought*.

Once more Peirce’s thought diverges from Kant. For the former rejects the Lockean assumption which Kant adopted, *viz.*, that the originary material of all thought and experience is atomic sensations or simple impressions. The need for synthesis in Kant’s first *Critique* is predicated upon the presupposition that the manifold of sensuous impressions has no intrinsic connectedness. This is not the case for Peirce. While his paper, confessedly, is “based upon the theory already established that the function of conceptions is to reduce the manifold . . . to unity,” it is his great merit, or the originality of his method, that he goes directly to the appearances themselves. In the analysis of the phenomenon (or “substance”) there is found a conception or “moment” of thought, the present in general, which is *prior* to analysis. Thus, Peirce’s phenomenological approach reveals the connectedness of “things” and he can commence with that as a kind of primary epistemological premise.

That Peirce did not presuppose, like Kant, atomic sensations as the primary material of thinking must be apparent from the discussion of presentness in the 1867 essay. That his own analysis differed from Kant he recognized himself, as the passage below, written in 1890, amply demonstrates.

Kant gives the erroneous impression that ideas are presented separately and then thought together by the mind. This is his doctrine that a mental synthesis precedes every analysis. What really happens is that something is presented which in itself has no parts, but which nevertheless is analyzed by the mind, that is to say, its having parts consists in this, that the mind afterwards recognizes these parts in it. Those partial ideas are really not in the first idea, in itself, though they are separated out from it. It is a case of destructive distillation. When, having thus separated them, we think over them, we are carried in spite of ourselves from one thought to another, and therein lies the first real synthesis. An earlier synthesis than that is a fiction. . . . (1.384).

Thus, Peirce reiterates what he found to be the case in 1867 – namely, that analysis precedes synthesis, that “the first real synthesis” is the final moment of thought.

Herein lies the real point of difference between Peirce and Kant. The first begins with the phenomenon in its presentness or Firstness, without parts, without disconnection, while the latter accepts the associationist assumption that what is given in experience originally are only atomistic sensations or simple impressions. In the manifold of sensuous impressions there is spatio-temporal “withness” but no logical connectedness, no generality, whatever. If all that is given us through our sensing are impressions, ordered in space and time, then the question, raised by Hume and answered by Kant, concerning the origin and validity of our idea of necessary connection, naturally arises. But if, like Peirce, we abandon the presupposition that there are any absolutely first cognitions or “first impressions of sense,” requiring to be brought together by the synthesizing consciousness, and instead return to the direct observation of mental phenomena, a different world conception follows.

Peirce concludes his discussion of the first conception in the following way. “. . . But the *it* itself,” he writes, “cannot itself be made a predicate. This *it* is thus neither predicated of a subject, nor in a subject, and accordingly is identical with the conception of substance” (1.547). This conception of what is present in general, which is recognized as simply *it*, is that *to which* predicates apply. Thus it corresponds to Aristotle’s conception of substance in one of its senses. “Substance, in the truest and primary and most definite sense of the word, is that which is neither predicable of a subject nor present in a subject; for instance, the individual man or horse.”⁶⁴ “Substance,” in its truest and primary sense, is not a predicate at all. From a phenomenological point of view “substance” is a word for the phenomenon itself. If by “category” is meant that which is predicable of a subject or present in one, then, “substance,” as used by Peirce, is not, strictly speaking, a category. The same can be said of Being, the last universal conception, which is treated

64. *Categories*, v.

next in Peirce's paper. Unlike "substance," it has *no* content (1.548). The conception of being "is that which completes the work of conceptions of reducing the manifold to unity" (*ibid*). This unity is made clear in the following passage.

1.548. The unity to which the understanding reduces impressions is the unity of a proposition. This unity consists in the connection of the predicate with the subject; and, therefore, that which is implied in the copula, or the conception of being, is that which completes the work of reducing the manifold to unity. . . . The conception of *being* contains only that junction of predicate to subject wherein these 2 verbs agree.

In the 1867 essay, it should be noted, the copula is considered as separate from predicate although, even there (1.548) Peirce speaks of "the copula (or rather) the verb which is copula in one of its senses)." Comparative language studies made later compel Peirce to revise this estimation. He comes to view the copula as purely formal⁶⁵ and regards the "is" as a part of the predicate. Indeed, in his more developed theory of signs, he writes that every general symbol, every predicate, common noun, even a "term," or constituent part of a proposition, involves at least a rudimentary form of assertion (2.341). In 1867 Peirce's analysis of terms is not so far advanced. The conception of *being* arises only upon the formation of a proposition or logical judgment. It is what unites the predicate to its subject and completes the work of conceptions of reducing to unity the manifold of sense. To return to the Essay (1.548):

If we say, "The stove is black," the stove is the *substance*, from which its blackness has not been differentiated, and the *is*, while it leaves the substance just as it was seen, explains its confusedness, by the application to it of *blackness* as a predicate. The "is" in the proposition does not affect the phenomenon but "explains its confusedness" by applying a predicate to it. The expression "confusedness," about which we will have more to say later, refers to the manifold of impressions as it appears first in the bare act of attention.

To sum up Peirce's argument, the unity to which the understanding reduces the manifold of sense impressions is the unity of the proposition. The proposition connects a predicate to its subject, while the mental act of predication involves the conception of *being*, *something being as such*. In Peirce's example, the stove is black, the something or *it*, in general, is *the stove as such*, in all its Firstness, before any comparison or discrimination has been made. To this unanalyzed IT, exactly as it appears to the senses, the simple monadic predicate, *blackness*, abstracted from the manifold, is now applied. With the formation of the logical judgment, the conception of *being* arises.

65. Cf. 2.343, 1902. "The copula differs from the subject and predicate in being purely formal, and containing no special matter or complexity."

This is the last conception required. In Peirce's words, it "completes the work of conception." In conclusion, "Substance and being are the beginning and end of all conception." These are the twin poles of thought: First, the *pre-analytical*, pure recognition of what is contained in consciousness, before any comparison or discrimination occurs; last, the genuine mental synthesis, which takes place after the *it, in general*, has been analyzed. What lies *between* are the intermediate categories.

* * *

One statement from Peirce's critique of Kant quoted above will serve as a bridge back to the early essay on the list of Categories. "These partial ideas are really not in the first idea, in itself, though they are separated out from it. It is a case of destructive distillation."

What are these "partial ideas" which come between the first idea (the conception of substance⁶⁶) and the final (that of being⁶⁷)? What are the intermediate categories or elementary conceptions, introduced to reduce the manifold of sensuous impressions to unity?

How do they arise? How many are there? In what sense are they universal and elementary? These are questions which Peirce answers in the middle section of the New List essay.

It is partially to provide an answer to this that Peirce introduces in paragraph 1.549 the terms "precision" and "abstraction."

The terms "precision" and "abstraction," which were formally applied to every kind of separation, are now limited, not merely to mental separation, but to that which arises from *attention* to one element and *neglect* of the other. Exclusive attention consists in a definite conception or *supposition* of one part of an object, without any supposition of the other (1.549).

Precision or abstraction is then carefully distinguished from two other modes of mental separation, *viz.*, discrimination and dissociation. Discrimination

66. The term "substance" used in the 1867 essay does not appear again in Peirce's writings on the categories. It has, in the first place, too many metaphysical associations, whereas Peirce's doctrine of the categories is *pre-metaphysical*. The categories are purely formal, *applicable* to reality. In the second place the term has too many meanings, including being itself. From the point of view of phenomenology, "substance" in the 1867 essay should be equated with the manifold of sensuous impressions or *phenomenon*, and the study of phenomenology should be construed as the formal analysis of the phenomenon. Such an analysis revealed to Peirce three interdependent elements. These were his universal categories which, in 1867, he named Quality, Relation and Representation.

67. *Being*, another term Peirce ceased using in connection with the Categories after 1867. *Being*, like *substance*, has metaphysical overtones inappropriate to the study of phenomenology. As used in 1867, the conception of "being" was that which arises upon the formation of a proposition. As copula, "being" or "is" is neither a categorematic nor syncategorematic term but a symbol standing for assertion. From a comparative language point of view, Peirce later concluded, the "is" is a dispensable, linguistic convention.

has merely to do with senses of terms, while dissociation is “the separation of two related ideas, permitted by the law of association of images” (1.549). Thus, I can dissociate red from blue, but not space from color, it being impossible to *imagine* a colorless vacuum. I can discriminate red from blue, and space from color, even though they are associated, but I cannot distinguish red from color, since whatever is red is at the same time *meant* as colored. Finally, I can prescind or abstract red from blue and space from color, since a colorless space is supposable; but I cannot prescind red from color or color from space, it being logically impossible to *suppose* red as uncolored, or something colored to be unextended. (Peirce is careful to distinguish sensing red or the sensation of red from the object perceived as red, in this respect anticipating Brentano’s distinction between physical and mental phenomena.)

Not every conception is prescindable. I cannot, for example, predicate of the stove the property of blackness without first conceiving the stove with all its qualities, which is the stove as it appears *prior to analysis*. Precision, moreover, is *not* a reciprocal process. “It is frequently the case,” Peirce wrote, “that, while A cannot be prescinded from B, B can be prescinded from A.” Thus, having once obtained by precision – attending to one element and neglecting the others – the predicate blackness, there is no reason why one should attend to the earlier impressions from which blackness was abstracted. Peirce explains:

This circumstance is accounted for as follows. Elementary conceptions only arise upon the occasion of experience; that is, they are produced for the first time according to a general law, the condition of which is the existence of certain impressions. Now if a conception does not reduce the impressions upon which it follows to unity, it is a mere arbitrary addition to these latter; and elementary conceptions do not arise thus arbitrarily. . . . On the other hand, when such a conception has been obtained, there is, in general, no reason why the premisses which have occasioned it should not be neglected (1.549).

In such a manner can the mediate or explaining conception be prescinded from “the more immediate ones and from the impressions” (*ibid.*).

As Kant saw earlier, the concepts of the understanding are elicited by experience and are what make experience possible. But Kant’s twelve categories were particular and material, while Peirce’s are universal and elementary, thus constituent of *every* experiencing and, consequently, purely formal. It is in this sense that Peirce’s short list of categories consists of elementary and universal conceptions; elementary, because they are the constituents of all experience; universal, because they are *necessary* for *any* understanding. We may neglect any one so long as we do not suppose that the reduction of the manifold of sense to the unity of understanding is possible without them all. For that is the essence of an elementary conception. “If the impres-

sions could be definitely comprehended without the conception, this latter would not reduce them to unity. Hence the impressions (or more immediate conceptions) . . . cannot be definitely conceived or attended to, to the neglect of an elementary conception. . .” (*ibid.*).

What has been said so far affords “a systematic method of searching out whatever universal conceptions there may be intermediate between the manifold of substance and the unity of being . . .” (1.550). The occasion of the introduction of an elementary conception is either (1) the reduction of the manifold to unity or (2) to conjoin to the conception of substance some other conception necessary for that reduction. The categories are interdependent. By scrutinizing all that appears in consciousness, we have ascertained phenomenologically that “substance”, the it, in general, is first in order of conception. We have also determined that “being,” or the conception of what is “implied in the copula,” while the end of conception, is first in order of understanding. To find the intermediate categories, which lie between the manifold of substance and the unity of being, we reverse the order of conception and begin with the conception of being. In Peirce’s words, “. . . we have only to ascertain what conception already lies in the data which is united to that of substance by the first conception [being], but which cannot be supposed without that conception, to have the next conception in order in passing from being to substance” (*ibid.*).

Empirical psychology, according to Peirce, “discovers the occasion of the introduction of a conception” (1.551). Reflection discloses that “the conception of *being* arises upon the formation of a proposition.” In a proposition there is, besides a subject term to express the substance, a predicate term to express the quality of the substance. “The function of the conception of being is to unite the quality to the substance. Quality, therefore, in its very widest sense, is the first conception in order in passing from being to substance” (*ibid.*).

In this manner we ascertain the first conception in the passage from being to substance. It is not, Peirce emphasizes, the result of introspection but of following the strictly objective, analytic procedure outlined above. Introspection would lead us to believe that quality is given in the impression itself. That this is not the case is demonstrable. If the quality were given in the impression, then the two conceptions (substance and quality) could not be distinguished. Yet clearly they are, and of the two quality is the more mediate. What occurs in fact is the mental separation, by precision, of some quality or characteristic from the immediate object of thought. Only then does the conception of quality arise. Thus the conception of quality is the first intermediate conception required in order to reduce the manifold of impressions to the unity of being. Wrote Peirce:

Take, for example, the proposition, "This stove is black." Here the conception of *this stove* is the more immediate, that of *black* the more mediate, which latter, to be predicated of the former, must be distinguished from it and considered *in itself*, not as applied to an object but simply as embodying a quality, blackness . . . which is a pure species or abstraction . . . (*ibid*).

Reference to a pure abstraction such as blackness is indispensable for thinking if we are to comprehend the agreement (or disagreement) between two things, e.g., the stove and the quality, black. Peirce concludes:

Such a pure abstraction, reference to which constitutes a *quality* or general attribute, may be termed a *ground*. Reference to a ground can be prescinded from being, but being cannot be prescinded from it (1.551).

If the *first* conception in the order of passing from being to substance is Quality, "in its very widest sense," then, following Peirce's procedure, one must next ask, What makes the introduction of *this* conception possible? In thus way we discover the next intermediate conception. Again "empirical psychology" (or reflective analysis) plays its role.

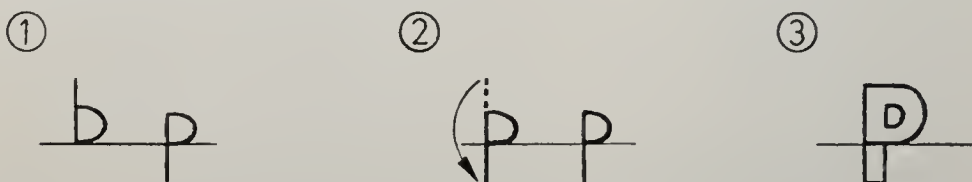
Empirical psychology has established the fact that we can know a quality only by means of its contrast with or similarity to another. By contrast and agreement a thing is referred to a correlate, if this term may be used in a wider sense than usual. The occasion of the introduction of the conception of reference to a ground is the reference to a correlate, and this is, therefore, the next conception in order (1.552). By reference to a correlate or *another* is meant reference to something which stands second to a first. This is the genesis of Peirce's category of Secondness. In the New List essay he names this universal category *Relation* in the mistaken belief that *all* relations were dyadic or reducible to dyadic relations. The relation may be between two objects, as in the fact that Cain killed Abel. This is termed a genuine dyadic relation. Or it may be between an object and a quality, e.g., the fact that this stove is black; or between two qualities, e.g., scarlet is red. The latter two are termed "degenerate" cases.

"Reference to a correlate," Peirce concludes, "cannot be prescinded from reference to a ground; but reference to a ground can be prescinded from reference to a correlate" (1.552). While the categories are interdependent, precision is not a reciprocal process. What gives rise to a later conception is not prescindable from the earlier conception, although the earlier conception can be prescinded from a later. Thus, being can be prescinded from Quality; the former conception has no content; but one cannot suppose Quality apart from the conception of being. With respect to relation, reference to a correlate or object must always involve reference to some respect or "ground" (an earlier conception) in which the relates agree or contrast. On the other hand, the converse is not true, and the conception of a quality can be prescinded from the notion of relation. In this connection it should be noted that the relation need not be between an individual and an inhering quality. On the contrary, this is a degenerate case. To take a genuine one,

in the statement, *Cain kills Abel*, the dyadic predicate “kills” refers to an object, Cain and Abel, and also to the abstract ground of killing, which relates the two. This dyadic *relation* cannot be prescinded from reference to a ground. However, the predicate “kills” can also be taken quite generally in abstraction from any relation to things. What has been said applies equally to degenerate cases of relation (where either one or both relates is a quality.)

To find the next conception after quality and relation, we must ask: What makes possible the introduction of the conception of relation, or reference to a correlate? “The occasion of reference to a correlate is obviously by comparison” (1.553), which is to say that in order to know whether things agree or contrast, with respect to some quality, they must be compared.

This act, Peirce tells us, has not been sufficiently investigated by psychologists. To redress this deficiency, we are offered a series of “phenomenological” descriptions of the mental act of comparison. Suppose, Peirce asks, we wish to compare the letters *p* and *b*. “We may imagine one of them to be turned over the line of writing as on an axis and then to be placed over the other, and finally to become transparent so that the other can be seen through it” (1.553). For example:



In this way we form a new image of the two letters (≠3) which *mediates* between the first two images of the letters so as to represent one of them, when turned over, to be the likeness of the other. This example, in spite of its trivialness, is an important one, insofar as it shows, or is intended to show,⁶⁸ that every mental representation involves a diagram or schema of some sort.

His second example is between two reciprocally related objects, a murderer and a murdered person. “In this case, we conceive the act of murder, and in this conception it is represented that corresponding to every murderer (as well as to every murder) there is a murdered person, and thus we resort again to a mediating representation . . .,” which stands in a mean relation to murderer and murdered person. We might diagram this, although Peirce did not, as follows:



68. Peirce’s doctrine that all thinking involves, at least, a mental diagram, developed at great length in his work on existential graphs (see *Collected Papers*, vol. IV., Bk. II), seems anticipated here.

where *M* stands for the act of murder, *m* stands for the murderer, and *w* (*m* upside down) stands for the murdered person. Peirce's final example has to do with words and their meanings. Suppose we look up in a French dictionary the word *homme* and find listed in the entry opposite it the English word *man*. So placed, he tells us, the word *man* "represents *homme* as the same two legged creature which *man* itself represents." This might be diagrammed as follows:

homme. m. man



Peirce sums up in the following way:

By a further accumulation of instances, it would be found that every comparison requires, besides the related thing, the ground and the correlate, also a *mediating representation which represents the relate to be a representation of the same correlate which this mediating representation represents.*

This analysis of the mental act of comparison illustrates one essential qualification of a philosopher: "the ability," as Peirce put it, "to discern what is before one's consciousness."⁶⁹ It also leads to Peirce's most original contribution to the theory of signs: the concept of *interpretant*. He writes: "Such a mediating representation may be termed an *interpretant*, because it fulfills the office of interpreter, who says that a foreigner says the same thing which he himself says. The term representation," he adds, "is here to be understood in a very extended sense, which can be explained by instances better than by a definition" (1.554). The instances he adduces are (1) a *word* which represents a thing to the conception in the mind of a hearer; (2) a *portrait* which represents the person for whom it is intended to the conception of recognition; (3) a *weathercock* which represents the direction of the wind to him who understands it; and (4) a *barrister* who represents his client to the judge and jury whom he seeks to influence. All – words, pictures and imitations, physical and natural signs, speakers, orators, advocates – in their *representations* represent something to somebody. Generally, every representation represents or signifies something to somebody, *to some interpretant*, even if the interpretant is only the thinker himself. Representation, or reference to an interpretant, is the next conception in the passage from being to substance. In Peirce's words, "every reference to a correlate conjoins to the substance the conception of reference to an interpretant."

69. See Peirce's reference to Kant (1.522): "...Kant possessed in a high degree all seven of the mental qualifications of a philosopher: 1. The ability to discern what is before one's consciousness. 2. Inventive originality. 3. Generalizing power. 4. Subtlety. . ."; and so on.

The meaning of this statement should be clearly considered in the light of previous examples. The weathercock, as it moves in the air, points to something, the direction of the wind, only to someone who understands what the weathercock represents. A portrait stands for (relates to) its intended object only to one who recognizes the person portrayed. In short, the conception of relation is impossible without some mediating representation.

Two further points are made. First, "reference to an interpretant cannot be prescindend from reference to a correlate." That is to say, every representation is a representation of something. The familiar phenomenological formula is implicit here: consciousness is consciousness of something; all consciousness is intentional. On the other hand, reference to a correlate *can* be prescindend from reference to an interpretant. While I cannot conceive of relation without a mediating representation, there is no necessity to suppose that the relation or represented fact, *Cain killed Abel, this stove is black*, depends upon my representing it as such. If, in fact, a man called Cain killed a man called Abel, the relation stands as a matter of fact, independent of its being represented. If the stove is black, not white, the relation of inherence is factual, whether or not the relation is asserted.

Reference to an interpretant, the next conception in order in passing from being to substance, is also the last (1.154), for, by means of it, the dissected parts of the manifold are brought back into unity. What is given in sense perception is not one impression but several simultaneously. This "diversity of impressions," akin to James' "blooming, buzzing confusion," gives rise to "a feeling of complication or confusion," necessitating analysis and, finally, reunification in a single consciousness. "If we had," Peirce wrote (1.154)

but one impression, it would not require to be reduced to unity, and would therefore not need to be thought of as referred to an interpretant, and the conception of reference to an interpretant would not arise. But since there is a manifold of impressions, we have a feeling of complication or confusion, which leads us to differentiate this impression from that. . . .

The genesis of thought is the desire and need for clarity and order. Man in a state of unreflective consciousness, which might be analogous to Freud's unconscious, is beset and confused by his bewildering impressions. Thus he is led "to differentiate this impression from that."

. . . then, having been differentiated, they require to be brought back into unity. Now they are not brought to unity until we conceive them together as being *ours*, that is, until we refer them to a conception as their interpretant. Thus the reference to an interpretant arises upon the holding together of diverse impressions (*ibid.*).

Because reference to an interpretant "unites directly the manifold of the substance itself" (*ibid.*), it is the last conception in the passage from being

to substance. Having found the intermediate categories which interweave the nouns and verbs of discourse, Peirce has reached his goal. Afterward he will seek greater generality and ever wider application. In the meantime the argument rests. Fugue-like, it has turned around and ended where it began with its first announced theme, the manifold of impressions. Only now, where formerly a medley of undifferentiated impressions, complex and bewildering, existed, there stands representation (*Vorstellung*, *logos*). Here is the new list of categories.

1.555. The five conceptions thus obtained, for reasons which will be sufficiently obvious, may be termed categories. That is,

Being

- Quality (reference to a ground)
- Relation (reference to a correlate)
- Representation (reference to an interpretant)

Substance

The three intermediate conceptions may be termed accidents.⁷⁰

The essay is not quite finished. What remain are applications or deductions, program notes in reality, for future work, suggesting further elaborations on the general theme of the Categories. The first is a variation of considerable formal importance. The second, a direct application of the Categories, lays the basis for Peirce's theory of signs, while the last develops the second and provides the foundation of one universal science, that of logic, or semiotic.

70. Peirce's vocabulary in 1867 has an archaic ring to modern ears. Apparently it did for Peirce as well. In later years he rarely employs the term, "substance." The categories are not referred to as "accidents". The word, "correlate," is replaced by "object," and the term, "ground," to stand for a sort of abstract idea, is used sparingly. Only the noun "precision," spelled now "prescission" to indicate its derivation from the verb "to prescind," and "interpretant" become part of Peirce's permanent, technical vocabulary.

Chapter III

THE SAME SUBJECT CONCLUDED

As has been indicated in the conclusion of chapter II, the remainder of Peirce's 1867 essay consists of program notes, suggesting fresh fields of investigation or elaborations on the doctrine of the Categories. We shall take them up in order.

Note 1. First, Second and Third

In paragraph 1.556 the figure of Firstness, Secondness and Thirdness is adumbrated. Peirce observes therein, "this passage from the many to one is numerical." In support he states: "The conception of a *third* is that of an object which is so related to two others, that one of these must be related to the other in the same way in which the third is related to that other. Now this," Peirce points out, "coincides with the conception of an interpretant." So much for the last intermediate category. Continuing, he alludes to the conception of *other*, already implied in the conception of a third: "An *other* is plainly equivalent to a *correlate*," reference to which constitutes the *second* intermediate category (of Relation). "The conception of *second*," Peirce adds, "differs from that of other, in implying the possibility of a third." The same line of reasoning is then applied directly to the idea of an other. That which implies the possibility of an *other* is the conception of *self*. "...the self abstracted from the concreteness which implies the possibility of another" is the *ground*, reference to which provides the *first* conception (of Quality). What this ground is, is not stated. We have no description, however brief, of "the self abstracted from the concreteness which implies the possibility of another."

This bears out our contention that these are notes for work to follow. Readers familiar with Peirce's later formulations will know that the idea of "self" is not first in conception. Self-awareness is a double consciousness. "We become aware of ourself," Peirce wrote in 1903, "in becoming aware of the not-self. The waking state is a consciousness of reaction. ..." (1.324). Reaction, of course, is an instance of (dyadic) Relation. This notion of self opposed to another had appeared much earlier. In a paper, published in 1868, he had argued against the idea of intuitive self-consciousness, claiming instead that all knowledge of self is the result of

inference.¹ What seems clear is that Peirce had not yet identified Firstness with feeling or qualities of feeling; he had not yet perceived that the “present in general,” corresponding to Kant’s manifold of sensuous impressions and referred to by the word “substance” in the New List essay, comes closest to embodying the idea of Firstness.² *It is what it is, independent* of the conception of anything else.³ In a similar way the category of dyadic relation, or Second, here barely sketched, will be later developed and expanded so as to emphasize existence, facticity, reaction, opposition and struggle.

Note 2. Peirce’s Division of Signs

A further consequence of Peirce’s doctrine of categories is his trichotomic division of thought-signs (representations) according to the objects they signify. The categories, as Peirce has noted, stand in a relation of non-reciprocal dependence. Such being the case “no one of the categories can be prescinded from those above it” (1.557). This fact yields a list of three “supposable,” i.e., thinkable, objects: Qualia, which refer to ground only, Relates, which refer to ground and correlate, and Representamina, which refer to ground, correlate and interpretant (1.557). (*A representamen* is the sign itself.)

If these then are the supposable objects of thought, it follows that there must be three kinds of sign-relation, depending on (1) whether the relation between sign and its object is merely that of resemblance, sign and object concurring in some quality only, the relates not being distinguished; or (2), whether the relation between sign and object be that of actual opposition,

1. “It is first to be observed that there is no known self-consciousness to be accounted for in very young children” (5.227). Self-consciousness, Peirce asserts, arises only after the child becomes acquainted with his body and learns to understand language (5.229–32). “It must be about this time that he begins to find that what people about him say is the very best evidence of fact. . . . A child hears it said that the stove is hot. But it is not, he says; and, indeed, that central body is not touching it, and only what touches is hot or cold. But he touches it, and finds the testimony confirmed in a striking way. Thus, he becomes aware of ignorance, and it is necessary to suppose a *self* in which this ignorance can inhere. So testimony gives the first dawning of self-consciousness” (5.233). “It is to be concluded, then, that there is no necessity of supposing an intuitive self-consciousness, since self-consciousness may easily be the result of inference” (5.237).

2. Cf. Peirce’s reference to Firstness in 1.302, dated 1894. “It is the leading idea of Kant’s manifold of sense.” See also Douglas Greentree’s illuminating article, “Peirce’s Hypo-, static and Factorial Categories,” in *Transactions of the Charles S. Peirce Society*, vol. IV No. 1, p. 54. Citing the same reference to Kant’s manifold, Greentree draws the same conclusion as is made in the text above, namely, that “Peirce is probably suggesting that it” – the idea of Firstness – “is to replace that Kantian concept.”

3. Cf. 1.302. “In the idea of being, Firstness is predominant, not necessarily on account of the abstractness of that idea, but on account of its *self-containedness*.” Emphasis added.

the relate and correlate being distinguished *in fact*, irrespective of any interpretant; or finally, whether sign and object are brought into relation conventionally by reference to an interpretant. Where this is the case, reference to a ground cannot be separated from reference to an interpretant. Accordingly, Peirce terms the ground an “imputed quality” or character (1.558).

“It follows,” Peirce writes, “that there are three kinds of representations (1.558).

“First, those whose relations to their objects is a mere community in some quality, and these representations may be termed likenesses [later called icons].”

It should be noted that no instances are given, indicating the sketchy, more or less programmatic, character of the second part of Peirce’s essay. Prime examples of iconic signs for Peirce are mental images and diagrams. The latter, of course, may be thought or otherwise represented. The word “icon” itself is suggestive.

Second [Peirce writes]. Those whose relation to their objects consist in a correspondence in fact, and these may be termed *indices* or *signs*.

Again, examples are missed. Peirce’s earlier illustration, however, of a weathercock representing the direction of the wind, is an index and shows very clearly the existential relation or factual connection between an indexical sign and its intended object. Other favored examples found in Peirce’s later writings on signs are a rap at the door, indicative of a visitor, a sundial or clock, indicating the time of day, the north star, pointing true north, or a monosyllabic exclamation, indicative of imminent danger. The word “index,” in one of its usages, is also highly suggestive, for a pointing finger would be an indexical sign. In all, it should be evident that representations such as these signify their objects, *irrespective* of any interpretant.

Third [Peirce concludes]. Those the ground of whose relation to their objects is an imputed character, which are the same as *general signs*, and these may be termed *symbols*.

In the 1867 essay Peirce divides symbols into three classes: terms, propositions and arguments (1.559). On several grounds it was not his most fortunate classification, as Peirce was ready to admit in later years (2.340–41). His reasons need not detain us here.⁴ However, we may feel free to substitute

4. They are, however, eminently worth noting. “In 1867”, Peirce wrote, “I defined symbol as any representamen; and so far I was right. But I immediately proceeded after the traditional manner, to divide symbols into *terms*, *propositions* and *argumentations*, with the meaning that ‘terms’ have no assertoric element, and there I was wrong, although the division itself is not so much wrong as it is unimportant. . . . I restricted symbols to conventional signs, which was another error. . . .” (2.340).

In the following paragraph (2.341) Peirce amplifies: “But I object to the triad, *term*, *proposition* and *inference*, if it be regarded as all-important in logic, on the ground that

another description of symbols, written by Peirce in 1902, to show what symbols are, provided this not be taken too literally. "All words, sentences, books, and other conventional signs are Symbols" (2.292). The proviso is justified because (1) the constituents of certain non-European, written languages are ideograms, which are ikons, (2) some words are onomatopoeic; and (3) many assertions made in all languages gain meaning from gestures and accent, which may be pure indices. Thus, not all symbols are simply conventional.

It is to these representations, conventional signs or Symbols, Peirce now turns his attention. What follows in the essay is the first attempt to found logic on the newly-found categories. While the account there differs in one important respect from Peirce's most mature reflections upon the subject, as will be pointed out later, and is notably sketchy, in other respects it does perfect justice to Peirce's ripest, most "deliberate" thoughts on logic. As witness these words, written in 1895: "The truth is that my paper of 1867 was perhaps the least unsatisfactory, from a logical point of view, that I ever succeeded in producing; and for a long time most of the modifications I attempted of it only led me further wrong" (2.340).

Note 3. Phenomenology and Logic

In 1.559, the long section which concludes the essay, Peirce purports to show how at least "one universal science," that of logic, is grounded on "the three conceptions of reference to a ground, reference to an object, and reference to an interpretant." The writer is only fulfilling his earlier promise, to base logic on an independently-founded, categorial system. His reasoning is terse to the point of being elliptical and presupposes, on the part of the reader, familiarity with medieval logical terms. "Logic," he writes, "is said to treat of second intentions as applied to first." A discussion of the truth of this statement is shrugged off as leading too far afield from the matter at hand, which is the subject of logic. He proposes merely to "adopt it as . . . a good definition of the subject-genus of this science." What we are required to know is the nature of second intentions and how they relate to first. This Peirce tells us. "Second intentions," he writes, "are the objects of the under-

common nouns, which, with their equivalents, are what is meant by terms, are mere accidental grammatical forms which happen to be very prominent in the languages most familiar to us, but which hardly exist, or at least are far from prominent, in the vast majority of tongues, and are really not needed at all. . . . It is absurd, indeed, to erect this unnecessary part of speech into a logical form, and leave the indispensable prepositions unrepresented, merely because in Indo-European languages they often appear in the form of terminations."

standing considered as representations, and the first intentions to which they apply are the objects of those representations.” Representations and their objects; we are back on familiar terrain. This Peirce makes immediately clear. “The objects of the understanding, considered as representations, are symbols, that is, signs which are at least potentially general.”⁵ Passing quickly to his first conclusion, we find that “logic has for its subject-genus all symbols”, whether written, spoken or thought, “and not merely concepts.” The reader may well ask about likenesses, as icons were then called, and indexical signs. They have been banished by Peirce from the universe of logic on the ground that the rules of logic do not directly apply to likenesses or indices, since “no argument can be constructed of these alone.”

Logicians may dispute as to the reason why these signs are dismissed by Peirce. So far as this writer knows, Peirce never took occasion to criticize his account for their omission, and we know how often he remarked about this particular paper. Here is not the place to discuss this question, although we shall revert to it once again briefly below.

Resuming the argument from where it left off, “Logic has for its subject-genus all symbols and not merely concepts.” The next sentence, which is marked by a noticeable ellipsis, contains Peirce’s second conclusion, viz., “logic treats of the reference of symbols in general to their objects.” (Suppressed is the premiss that it “treats of second intentions,” that is, symbols or general signs, “as applied to first,” that is, the objects to which the symbols refer.)

So determined by Peirce, logic (formal logic properly) becomes the second of a “trivium of conceivable sciences,” dealing with symbols.

The first would treat of the formal conditions of symbols having meaning, that is of the reference of symbols in general to their grounds or imputed characters, and this might be called formal grammar [later termed *Speculative Grammar*];

The exclusion of likenesses and indices is explicit.

The second, logic [later called *Critical Logic* or *Critic*], would treat of the formal conditions of the truth of symbols;
and the third would treat of the formal conditions of the force of symbols, or their power of appealing to a mind, that is of their reference in general to interpretants, and this might be called formal rhetoric [later termed *Speculative Rhetoric* or *Methodeutic*].

Knight suggests that these “three subdivisions of the logic of symbols” might be labelled, respectively, semantics, logic and methodology.⁶ Peirce’s allusion above to a “trivium of conceivable sciences” unmistakably recalls the medie-

5. See Peirce’s definition of *symbol* above.

6. Knight, Thomas S., *Charles Peirce* (New York, Washington Square Press, 1965) p. 114.

val discipline of grammar, logic and rhetoric, which would explain his own choice of terms. Whatever the case, Peirce has successfully demonstrated how his categories lay the basis for logic, taken in the broadest sense, as the science of signs. Thus, the conceptions of reference to a ground, reference to an object or correlate, and reference to an interpretant, constitute together the fundamental categories of thought.

Peirce's restriction of logic to the study of symbols is a minor flaw in the early paper and is rectified in later writings. In chapter I of "Minute Logic" (1902), a book never finished, logic is defined as "the science of the general necessary laws of Signs and especially Symbols."⁷ The emphasis has not changed but the subject matter has widened. Perhaps the best statement of what logic is to be found in a syllabus published in 1903. It deserves to be cited at length. "Logic is the theory of self-controlled, or deliberate, conduct. . . . All thought being performed by means of signs, logic may be regarded as the science of the general laws of signs. It has three branches: 1. Speculative Grammar, or the general theory of the nature and meanings of signs, whether they be icons, indexes or symbols; 2. Critic, which classifies arguments and determines the validity and degree of force of each kind; 3. Methodeutic, which studies the methods that ought to be pursued in the investigation, in the exposition, and the application of truth. . . ."⁸

This will conclude our discussion of the ideas found in the New List paper. Valuable as Peirce's remaining notations are, they depend from a division of symbols into terms, propositions and arguments, about which Peirce himself expressed some misgivings, as has been noted above.⁹ Further, his classification of arguments into three types, deductive, inductive and hypothetical, had been made in a paper published earlier in the year,¹⁰ while divisions of terms, propositions and arguments, arising from the distinction of logical extension and comprehension, were the subject of a paper completed later in 1867.¹¹ Neither bear directly on the topic of this study.

7. *Cf. Coll. Papers*, 2.93.

8. *Ibid.*, 1.191.

9. See especially footnote 4 of this chapter.

10. "On the Natural Classification of Arguments," *Proc. of the American Academy of Arts and Sciences*, vol. 7, April 9, 1867, pp. 261–87. In *Coll. Papers*, 2.461–519.

11. "Upon Logical Comprehension and Extension," *Proc. of the American Academy of Arts and Sciences*, vol. 7, Nov. 13, 1867, pp. 416–32. In *Coll. Papers*, 2.391–426.

Chapter IV

PHENOMENOLOGY AND NATURE

A. *The Categories of Thought*

Thus far we have tried to show how Peirce derived his categories from an analysis of the phenomenon itself and how this laid the basis for several later doctrines. We have pointed out the advantage he hoped to obtain by going to the appearances themselves – namely, freedom from presuppositions; and have attempted to demonstrate the uniqueness of this undertaking by reconstructing Peirce's procedure for searching out his categories. We found that by reversing the order of *conception*, which begins with the Kantian manifold, and adopting the order of *understanding*, which starts with the conception of being, or "what is implied in the copula," Peirce's procedure enabled him to discover the intermediate categories lying between the unity of being and the manifold of sensuous impressions. These three elements, present in all cognition, are universal and interdependent, and in an ordered relation such that the first may be prescinded from the second and the second from the third. We concluded that whether Peirce was the first to adopt the phenomenological approach or not – Hegel's *Phänomenologie des Geistes* had appeared before Peirce was born – the *deliberate* effort to derive the ultimate categories of thought by systematically scrutinizing the contents of consciousness constituted a sufficiently new and radical method of philosophizing as to warrant his calling it "my one contribution to philosophy."

What was sought after was a list of categories, or elementary conceptions, indispensable for thought. By returning to the phenomenon, unmediated by linguistic constructions – Aristotle's starting point – or a given table of logical judgments – Kant's uncritical point of departure – Peirce produced a new list of formal categories. Universal in application, they differed radically from the *particular* categories deduced by Aristotle and Kant. It seemed clear that this search for the categories was not undertaken by Peirce for the sake of novelty nor to revise the earlier philosophical systems of Aristotle and Kant but in order to lay a foundation for philosophy by grounding the categories of understanding in the nature of thought itself. Even logic would have its foundation in this fundamental grounding.¹

1. See 1.559: "I shall... show how the three conceptions of reference to a ground, reference to a correlate, and reference to an interpretant are the fundamental ones of at least one universal science, that of logic." Cf. also, pp. 50–51 above.

In 1867, when Peirce published his “new” list of universal categories, he made no attempt to apply these conceptions to physical phenomena, or the subject-matter of the physical sciences. Thus, the categories were confined, as to use, to mental phenomena. By means of them, any thought or experience might be analyzed into its component elements.² This limitation in application did not stem from theory, however. It was not Peirce’s intention to restrict the doctrine of the categories to pure phenomenology. In fact, the intention to widen the scope of categorial analysis to include *every* science, material as well as formal, is explicitly stated by Peirce in the second preliminary draft of “On a New List of Categories.”³

This intention was not carried out until c. 1885, and probably could not have been carried out earlier for other reasons than the one averred by Peirce’s interpreter, Murphey, who put forward the claim that the introduction of quantifiers into the logic of relatives in about 1883 forced Peirce to revise his metaphysical views and led him to think of the categories, formerly held to be the formal elements of all thought, as material categories, too. We have contested this interpretation on several grounds.⁴ First, by showing that Peirce, as a logician of genius, had no difficulty in quantifying statements without resort to special operators, and had in fact done so in 1870. Second, we indicated reasons for disagreeing with Murphey’s opinion that Peirce’s early “scholastic” realism prevented him from acknowledging that individual things have haecceity in addition to generality.⁵ The contention that a logical innovation entailed, or even brought about, a revolution in Peirce’s metaphysical thinking, seems on the whole an overly simple and mechanical explanation of the development of Peirce’s thought. Peirce himself regarded “the introduction of indices [i.e., quantifiers] into the algebra of logic” as a *technical* improvement in the system of logical notation and not a logical *discovery* (3.363).

Resuming the main argument, we may cite *two* reasons for Peirce’s failure to apply the categories of thought to nature and the natural sciences much

2. For example, the hearing of a musical piece has (1) a materialistic, *qualitative* aspect, consisting of auditory and visceral sensations and, possibly, visual *correspondances*, which relates to the category of Quality; (2) an *objective* reference, the actual music being played, corresponding to the category of (dyadic) Relation; and (3) an *interpretant*, or signification: what the listener “found” in the music, gayness, sadness, monotony, change, the unfolding of the seasons, etc., which corresponds to the class of representations. Similarly, viewing a painting has a material, qualitative aspect, consisting of visual, tactile and muscular sensations; an intended object, Madonna and child; and an interpretant or signification, maternal love. Actually, of course, no one interpretation exhausts the “intention” of the representation. What is said here of perceptual experiences, *mutatis mutandis*, applies to all mental concepts or thought-signs.

3. *Supra*, Ch. II.

4. *Supra*, Ch. I.

5. *Ibid.*

before 1885, reasons in keeping with the life and character of the American philosopher. In the first place, considering the position of importance he assigned to the doctrine of the categories in philosophy, Peirce was not easily satisfied as to the correctness of his list. As he wrote a friend, Victoria Welby, in 1904:

I was long ago (1867) led, after only three or four years of study, to throw all ideas into the three classes of Firstness, of Secondness, and of Thirdness. This sort of notion is as distasteful to me as to anybody; and for years, I endeavored to pooh-pooh and refute it; but it long ago conquered me completely. Disagreeable as it is to attribute such meaning to numbers, and to a triad above all, it is as true as it is disagreeable (8.328).

This natural caution was reinforced by Peirce's scientific temper. A set of categories drawn from the logical analysis of thought ought not be applied to *all* being before each category could be empirically verified. Only long study of nature, upon which Peirce was embarking in the years after 1867, could provide such support for his formal, categorical scheme. This empirical requirement is discussed in the following passage written in 1894:

The *list of the categories* ... is a table of conceptions drawn from the logical analysis of thought and regarded as applicable to being. ...

I shall not here inquire how far it is justifiable to apply the conceptions of logic to metaphysics. ... I may say, however, that in my opinion, each category has to justify itself by an inductive examination which will result in assigning to it only a limited or approximate validity (1.300–301).

These, then, seem to be the reasons for Peirce's reluctance to extend the results of his phenomenological analysis to all of philosophy and every science. First, his natural philosophical caution. Was his list correct and complete? Logical studies might help him here, and the development, after 1867, of his algebra of relatives indicated, at least to Peirce, that all predicates were either monadic, dyadic or triadic, or if higher, could be reduced, by further analysis, to triadic relations. The tri-fold classification of logical terms, first made in a paper, "Description of a Notation for the Logic of Relatives," was published by Peirce in 1870.⁶ Second, an understandable reluctance to impose upon the sciences a set of pre-conceived categories for which he had as yet no empirical justification.

6. *C. P.*, 3.45–149. See especially 3.63, where Peirce divides logical terms into "three grand classes" and states that "no fourth class of terms exists involving the conception of a fourth, because when that of *third* is introduced, since it involves the conception of bringing objects into relation, all higher numbers are given at once, in as much as the conception of bringing things into relation is independent of the number of individuals entering the relationship."

This account differs in detail from others to be found in Peirce's writings. See, e.g., 1.363, in which Peirce tries to show that polyadic relations of orders higher than three are always reducible to a series of triads. After demonstrating that triadic relations cannot be

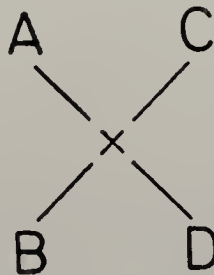
B. The Categories of Nature

Eighteen years elapsed between the publication of the New List essay and the appearance of a manuscript bearing the title, "One, Two, Three: Fundamental Categories of Thought and Nature."⁷ The universal categories or elements of thought, first discovered by logical analysis of mental phenomena, are now extended to all of Nature.

We must now ask, How did this come about? Why did Peirce wait eighteen years before applying his set of formal categories to the natural world? We have a wealth of evidence (see this section) suggesting that his scientific and logical work was responsible for that decision, and that its effect was cumulative. Between 1867 and 1885 Peirce repeatedly found in the sciences of nature and thought independent confirmation of his three ideas. The triad was continually appearing in logic and the special sciences – first in psychology, then in physiology and the theory of the cell, finally in evolutionary biology and the physical cosmos itself. The following passage from *A Guess at the Riddle*, dated 1890, corroborates this view:

The importance [of the categories] was brought home to me originally in the study of logic where they play so remarkable a part I was led to look for them in psychology. Finding them there again, I could not help asking myself whether they did not enter into the physiology of the nervous system. By drawing a little on hypothesis, I succeeded in detecting them there. . . . I had no difficulty of following the lead into the domain of natural selection; and once arrived at that point, I was irresistibly carried on to speculations concerning physics (1.364).

reduced to dyads, Peirce writes: "But now I will show by an example that a four can be analyzed into threes. Take the quadruple fact that A sells B to C for the price D. This is a compound of two facts: first, that A makes with C a certain transaction, which we may name E; and second, that this transaction E is a sale of B for the price D. Each of these two facts is a triple fact, and their combination makes up as genuine quadruple fact as can be found." Following Peirce's instructions, it could be diagrammed as follows: (1) Taking the two triple relatives, "A makes a transaction E with C" and "E is an exchange of B for D," replace the common term by "X," which will have the force of a relative pronoun, or identifying index. (2) Then combine as below:



The diagram shows that the tetrad is two triads linked together by means of a common *third*. Peirce concludes without demonstration that "any number, however large, can be built out of triads," given sufficient ingenuity.

7. Unpublished Ms. 901 (c. 1885), 39 pages in length, of which pp. 1–19 and 25–32 were published as C. P. 1.369–372 and C. P. 1.276–378.

In sum, the application of the categories of thought to nature itself came about, not anacastically, to adopt a Peircean term, required by a single major discovery, whether in logic, as some have alleged, or in psychology, physiology, biology and so on. Nor did it occur gradually by imperceptible changes of view. On the contrary, as we shall show, it was the *result* of a series of related leaps from one field of science to another, culminating in a speculative leap of cosmological import. This, Peirce's "guess at the riddle," was the recognition of a single triad, operative in the cosmos or universe itself. According to this world-hypothesis, as it was formulated in c. 1890, there are three elements active in the world: "first, chance, second, law, third, habit-taking" (1.409).⁸

Here is not the place to ask whether Peirce's cosmological hypothesis is well-founded or not. Its metaphysical implications seem plain. We see Peirce moving toward an evolutionary cosmogony with mind as the chief explanatory category. What does concern us, however, is to chart the course over which Peirce traveled before making his bold cosmological guess.

1. The Categories of Consciousness – 1867

In the winter of 1867 Peirce gave a series of twelve lectures at the Lowell Institute in Cambridge on "The Logic of Science, or Induction and Hypothesis."⁹ In Lecture X, of which only fragments have been found, he had "endeavored to show how logic furnishes us with a classification of the elements of consciousness. We found," he summed up,

that all modifications of consciousness are inferences . . . and that there were three kinds of inferences. . . . This division leads us to three elements of consciousness (Lecture XI, 7.580).

The three elements were (1) Feelings, or elements of comprehension, (2) Efforts, or elements of extension, and (3) Notions, or elements of information. These *psychological* categories correspond roughly to the three formal elements of the phenomenon: Quality (of feeling), (dyadic) Relation, and Representation. They agree also with the Kantian triad, Feeling, Willing and Knowing, a doctrine Peirce later criticized.

This is probably the earliest, independent argument in support of the universality of Peirce's formal categories of thought.

In the same lecture of 1867 we come across a statement concerning the uniformity of nature which is highly significant because it signifies a commitment to a physical doctrine that Peirce did not seriously question until the 1880's.

8. See also the first *Monist* article, "The Architecture of Theories," C. P. 6.32–34, published in 1891.

9. Cf. C. P. 8, pp. 260–261.

Automation . . . consciousness being admitted, means nothing but regular physical antecedence; — implies only that nature is uniform. . . . This is not a mere law of nature, or fact of observation, but is a postulate of all thought . . . (7.581).

This belief in the invariability of nature, the idea that every physical state, not excluding consciousness, is antecedently determined by fixed mechanical laws, Peirce even then saw to be a kind of a metaphysical assumption. It is not a material or natural law, because laws of nature are always contingent (7.137, 1866); or a fact of observation, since all observation contains an element of inexactness, of which Peirce, as a worker in the field of geodesy, was well aware. Nevertheless, in spite of this awareness, Peirce takes the doctrine of necessity to be one that “no man consistently or persistently denies.”

Was Peirce a thorough-going physical reductivist? A dogmatic determinist? The answer is no. Even as a believer in physical necessitarianism, he held the doctrine to be unproved and indemonstrable. What we shall try to show is that the assumption was for Peirce a serious bar in the road of inquiry which prevented him from questioning classical physical theory, and caused him to postpone the methodical application of triadic analysis to all natural phenomena. Once this bar to inquiry is removed, the application of the categories, in particular, the category of Thirdness, to all of nature will no longer appear far-fetched.

In 1877, ten years after the Lowell Institute lectures were delivered, Peirce presented his views on the logic of science in a series of six articles, published in *The Popular Science Monthly*. Entitled “Illustrations of the Logic of Science,” it contains his best-known statement of the pragmatic principle. Yet to a reader interested in tracing the appearances of triads in the physical sciences themselves, the series must disappoint. There is a fleeting allusion in the first paper, “The Fixation of Belief,” to the course of inquiry and nervous processes (5.373), which does anticipate later doctrine. But except in the final paper on the three modes of mental inference, deduction, induction and hypothesis, no attempt is made to relate mental and physical processes.¹⁰ Even there the matter is dealt with cursorily and unsystematically.

There is only brief mention of the idea of biological evolution. “Mr. Darwin,” Peirce stated (5.364), “proposed to apply the statistical method to biology.” His work in biology is compared thereafter with the development of the kinetic theory of gases, based on probability theory. Again Peirce’s concern is with scientific method. He makes no distinction between living and non-living processes. (This deserves mention in view of his later panpsychism.) At the time of the *Popular Science* essays (1877–78) Peirce is

10. Cf. 2.643 where induction is linked to “the physiological process of formation of a habit,” hypothesis related to “a single harmonious disturbance which I call an emotion,” and deduction to “nervous discharge in the sphere of physiology.”

a physical mechanist. To substantiate this view, one has but to look at the next-to-last paper of that series, "The Order of Nature."

In that essay Peirce returns to the question of the uniformity of nature, arguing – undogmatically, it is true – *in favor* of the supposition, referred to earlier in this chapter, that mechanical principles, in conjunction with an initial distribution of random atoms, are sufficient to explain all subsequent states of nature from the solar system¹¹ to "the structure of organized beings."¹² In doing so, he argues *against* order coming about through chance,¹³ design,¹⁴ or an *order of development*.¹⁵

We now turn to the years 1879 to 1885, which mark a turning-point in Peirce's thought. It is not a new philosophy or system that emerges in the span of these six years but an enrichment of the old. The earlier thought is not put aside so much as found to be one-sided. Even the essay, "Order of Nature," Peirce intended to republish as a chapter of a book planned in 1893,¹⁶ in spite of the fact that he had by then repudiated the essay's central thesis. This indicates the conservative character of Peirce's thought. It grows by accretions. The enrichment during the years 1879–85, this writer believes and will endeavor to show, was due to Peirce's placing in the foreground the idea of Thirdness – the idea of process or growth.¹⁷ This came about by a series of steps.

11. Cf. 6.398. "It is the legitimate endeavor of scientific men now, as it was twenty-three hundred years ago, to account for the formation of the solar system and of the cluster of stars which forms the galaxy, by the fortuitous concourse of atoms. . . . Matter," Peirce continues, "is supposed to be composed of molecules which obey the laws of mechanics and exert certain attractions upon one another; and it is to these regularities (which there is no attempt to account for) that general arrangement of the solar system would be due, and not to hazard."

12. Cf. 6.423. ". . . if anyone claims to have discovered a plan in the structure of organized beings, or a scheme in their classification, or a regular arrangement among natural objects, or a system of proportionality in the human form, or an order of development . . . or a significance in numbers [think of Peirce's "pythagorean" categories!] . . . the first thing we have to ask is whether such relations are susceptible to explanation on mechanical principles, and if not they should be looked upon with disfavor as already having a strong presumption against them; and examination has generally exploded all such theories."

13. See footnote 11 above; also 6.416.

14. Cf. 6.422. "The universe ought to be presumed too vast to have any character. When it is claimed that the arrangements of Nature are benevolent, just, or wise, or of any other peculiar kind, we ought to be prejudiced against such opinions as being the offspring of an ill-founded notion of the finitude of the world."

15. See footnote 12 above.

16. The projected volume, *Search for a Method*, a selection of Peirce's most important published papers, was never completed or issued. See C. P. 8, "Bibliography," p. 280.

17. This characterization of Thirdness admittedly is too narrow, particularly in view of Peirce's emphasis on mediation, meaning, intention and the growing reasonableness of the universe. If Peirce had meant no more by Thirdness than material process and development, he would not have been at pains to develop the notion of Thirdness as a fundamental character of experience and thought. But here we are concerned with thirdness as a category of nature, independent of consciousness or mind.

2. The Triad in Physiology

In 1879, Peirce joined the faculty of the Johns Hopkins University as an instructor in logic. He did not give up his employment with U.S. Coast Survey where he was doing valuable and original work in geodesics, theoretical astronomy, astrophotometry and spectroscopy.¹⁸ We shall refer again to Peirce's scientific work in connection with tychism.

The five-year association with Johns Hopkins proved immensely productive, not merely because it brought him for the first time in direct contact with a brilliant group of graduate students interested in logic, and revived old academic ties; but also, on account of the psychologico-physiological orientation of the philosophy department at Hopkins. G. Stanley Hall, who later sponsored Freud's first lectures on psychoanalysis in the United States, was one of its two other members. Moreover, Hopkins, as a medical school, was a center of experimental psychology. Even William James, whose interest in psychology and physiology hardly needs mentioning, was disposed in the seventies to accept a teaching position at Hopkins,¹⁹ and in 1878 gave a series of lectures there on "The Brain and the Mind."

In the middle of Peirce's first teaching year, a paper was ready by E. M. Hartwell before the Metaphysical Club at Johns Hopkins. Entitled "Reflex Action and its Analogies in the Fixing of Belief," it would seem to bear the impress of Peirce, who had titled an important essay of his own, published a year earlier, "The Fixation of Belief." Belief, Peirce wrote then, disposes us to act in a certain way.

Doubt has not the least such active effect, but stimulates us to inquiry. This reminds us of the irritation of a nerve and the reflex action produced thereby; while for the analogue of belief, in the nervous system, we must look to what is called nervous associations – for example, the habit of the nerves in consequence of which the smell of a peach will make the mouth water (5.373).

Peirce's views on the physiology of thought developed rapidly. The stimulus of teaching at Hopkins and the academic environment provided by America's first graduate university certainly spurred his theoretical efforts. By April, 1880, Peirce had finished a long manuscript, "On the Algebra of Logic," which was published later in the year. In it appeared Peirce's first account of the physiology of cerebration.

18. See Victor F. Lenzen, "Charles S. Peirce as Astronomer," in *Studies in the Philosophy of Charles S. Peirce*, 2d series (Univ. of Mass. Press, 1964).

19. For most of my facts, although not my conclusions, concerning Peirce's career at the Johns Hopkins University, I am indebted to M. Fisch and V. Cope, "Peirce at the Johns Hopkins University," and its appendices in *Studies in the Philosophy of Charles S. Peirce*, ed. by P. P. Wiener and F. H. Young (Harvard Univ. Press, 1952).

Thinking [he wrote], as cerebration, is no doubt subject to the general laws of cerebration.

When a group of nerves are stimulated, the ganglions with which the group is most intimately connected on the whole are thrown into an active state, which in turn usually occasions movements of the body. The stimulation continuing, the irritation spreads from ganglion to ganglion (usually increasing in the meantime). Soon, too, the parts first excited begin to show fatigue; and thus for a double reason the bodily activity is of a changing kind. When the stimulus is withdrawn, the excitement quickly fades.

It results from these facts that when a nerve is affected, the reflex action, if it is not at first of the sort to remove the irritation, will change its character again and again until the irritation is removed; and then the action will cease.

Now, all vital processes tend to become easier on repetition. . . .

Accordingly, when an irritation of the nerves is repeated, all the various actions which have taken place on previous similar occasions are the more likely to take place now, and those are most likely to take place which have most frequently taken place on those previous occasions. Now, the various actions which did not remove the irritation may have previously sometimes been performed and sometimes not; but the action which removes the irritation must have every time continued until it was performed. Hence, a strong habit of responding to the given irritation in this particular way must quickly be established. . . .

Very often it is not an outward sensation but only a fancy which starts the train of thought. In other words, the irritation instead of being peripheral is visceral. . . .

A cerebral habit of the highest kind, which will determine what we will do in fancy as well as . . . in action, is called a belief (3.155-60).

Summing up, we find that the nervous action underlying the process of thinking is divided in three stages. First, there is neural excitation, whether peripheral or visceral, which spreads from ganglion to ganglion. Second, repetitive reflex action or neural discharge, adapted to remove the irritation. Third, the laying down of neural pathways, or the fixation of habits or beliefs. These three functions of nervous action, described in 1880, are in one-to-one correspondence with the psychological categories, given in 1890: Feeling, or passive consciousness, sense of action-reaction, or dual consciousness, and synthetic consciousness, the "sense of learning, thought."²⁰

So much for the triadic character of nervous activity and the genesis of habit. Habits once established become rules of action and persist so long as they are instrumental in removing irritating stimuli and bring about the desired end. While formation of habit is explained in mechanical terms, a new element has been introduced, which mediates between the purely mechanical excitation of neural groups and their equally mechanical reflex reactions. This, the habit-taking tendency, is neither spontaneous feeling nor blind reaction. On the contrary, habituation is what structures behavior so that it no longer *is* spontaneous or blind. To conclude, as Peirce did a decade later, that spontaneity or freedom is first, reaction or contingency

20. Cf. *A Guess at the Riddle* (1890), *C. P.*, 1.377-78.

second, and the growth of general relations, binding the contingent together under the law of habit, was third, is a “guess at the riddle” Peirce could not have possibly have made in 1880 while still under the influence of the mechanical philosophy. His account of the physiology of cerebration, however, is in line with such a hypothesis. Neural excitation, whether peripherally or viscerally caused – repetitive reflex reaction – consequent generalization – form a triad. Feeling is first, reaction second, habit is third.

Peirce was still a mechanist, committed, however undogmatically, to the principle that every physical event, not excluding feeling or consciousness, was strictly determined by mechanical law. In the early 1880’s, however, we find him inclining toward a new view of nature and seriously doubting this central postulate of the mechanical philosophy. What at this time caused Peirce to question the sway of absolute law? Doubtless, a feeling of dissatisfaction with the older philosophy, based on Newtonian principles, was in the air. By 1884 William James had written his “Dilemma of Determinism,”²¹ in which reference was made to Renouvier, Fouillée, and Delboeuf. On Dec. 11, 1883, the 24-year-old John Dewey had addressed the Metaphysical Club in Johns Hopkins on the topic, “Delboeuf on Living and Dead Matter.” In a paper published in 1892,²² Peirce refers to M. Delboeuf and Charles Renouvier as “world-renowned thinkers” who had espoused the doctrine of absolute chance. Much later Peirce wrote of this period: “Take, for example, our belief in the Order of Nature. The criticisms of it . . . by various other writers, of whom may be mentioned as long antecedent to the writer, Renouvier, Delboeuf, Fouillée, Blood and James, and no doubt there were others . . .” (5.508).

Whether Peirce was influenced by any or all these thinkers at this time is an undecided question, although it seems highly probable that he was. V. F. Lenzen suggests that Peirce’s scientific work supported his theory of tychism,²³ and this seems very likely. In any event, we have positive evidence that on Jan. 17, 1884, Peirce read a paper before the Johns Hopkins Metaphysical Club. The subject, as announced in a Johns Hopkins circular, was “Design and Chance.” Unfortunately, no copy of this address has survived. Robin, in his *Annotated Catalogue of the Papers of Charles S. Peirce*, tentatively identifies an unpublished manuscript (Ms. 875), written c. 1884, with the paper announced in the circular. The catalogue description is as follows:

Autographed manuscript, not published (c. 1884), 36 pp. Parts of a draft, or drafts, of one or more lectures at the Johns Hopkins University about 1883–84, perhaps that on “Design and Chance,” before the Metaphysical Club on January 17, 1884.

21. Reprinted in *Will To Believe* (Longmans Green: 1897).

22. “Man’s Glassy Essence,” *The Monist*. See 6.238, note 1.

23. *Op. cit.*, p. 34.

Analysis of conceptions of design and intelligence. The tendency of things toward ends. Darwin's influence upon both science and philosophy. The operation of chance.

A further note relates that three pages of this manuscript were removed to Ms. 962. The three pages, headed in Peirce's hand, "A Molecular Theory of Protoplasm," constitute the entire manuscript.²⁴

Manuscript 875, of which Ms. 962 is a part, appears to contain the germ of Peirce's doctrine of tychism. The reference to "the tendency of things toward ends," already encountered in Peirce's physiology of cerebration, the mention of Darwin's influence on science and philosophy and the operation of chance, make it plausible to conjecture that Peirce had begun to speculate about the origin of life and intelligence in terms of a teleological non-mechanical, tychistic evolutionism. Peirce's "molecular theory of protoplasm" (Ms. 962), from what we know of it in various later accounts,²⁵ rests on the proposition that consciousness belongs to all protoplasm, and cannot be explained mechanistically (6.264).

An important link in the reconstruction of the development of Peirce's doctrine of chance is to be found in an unpublished, incomplete manuscript of a lengthy review of Josiah Royce's *The Religious Aspect of Philosophy*, dated c. 1885.²⁶

"I think," Peirce wrote then (8.44), "that the existence of God, as well as we can conceive it, consists in this, that *a tendency towards ends* is so necessary a constituent of the universe *that the mere action of chance upon innumerable atoms* has an inevitable teleological result. One of the ends so brought about is the development of intelligence and knowledge."²⁷

In the same year "One, Two, Three: The Fundamental Categories of Thought and of Nature" was written. Like so much of Peirce's work, it was left unfinished. The title indicates that Peirce had found triads not only in thought but in nature.

3. *Triads in Reasoning and Psychology*

Like Kant before him, Peirce discovered trichotomies everywhere in logic. This is amply indicated in a long passage from the paper, "One, Two, Three."

24. For a description of Ms. 962, see Richard Robin, *Annotated Catalogue of the Papers of Charles S. Peirce* (University of Massachusetts Press, 1967), p. 118.

25. See section 5, "The Triad in Physiology," in *A Guess At The Riddle*, CP 1.385-90; and "Man's Glassy Essence," CP 6.238-39, 6.246-63.

26. Reprinted in its entirety in CP 8.34-54.

27. Emphases added.

Kant, the King of modern thought, it was who first remarked the frequency in logical analytics of *trichotomies* or three-fold distinctions. It really is so; I have long and hard tried to persuade myself that it is only fanciful, but the facts will not countenance that way of disposing of the phenomenon. Take any ordinary syllogism. . . . There are here three propositions . . . also three terms. . . . there are three figures of ordinary syllogism. . . . Again I have shown that the probable and approximative inferences of science must be classified . . . being either Deductions,* Inductions or Hypotheses. Other examples of threes in logic are statements of what is actual, what is possible, and what is necessary; the three kinds of forms, Names, Propositions and Inferences; affirmative, negative, and uncertain answers to a question. One very important triad is this: it has been found that there are three kinds of signs . . . indispensable in all reasoning . . . the *icon* . . . *index* and . . . general name or description [usually called "symbol" by Peirce].

But there is one triad in particular which throws a strong light on all the others. Namely, we find it necessary to recognize in logic three kinds of characters. . . . First there are *singular* characters which are predicable of single objects, as when we say anything is white, large, etc. Secondly, there are *dual* characters which appertain to pairs of objects; these are implied by all relative terms as "lover," . . . "other," etc. Thirdly, there are *plural* characters, which can all be reduced to triple characters but not to dual. . . . (1.369-70)

Here Peirce presents strictly logical evidence in support of the correctness of his short list of categories, first disclosed by reflective analysis in 1867.

The ordinary doctrine of psychology, Peirce states in "One, Two, Three", is that there are three departments of mind (1.375): Feeling [of pleasure and pain], Knowing, and Willing. "The unanimity with which this trisection of the mind has been accepted is, indeed, quite surprising," he adds (*ibid.*) Notwithstanding, Peirce subjects this division, to numerous criticisms. In the main, he holds, the divisions are not distinct.

For example, desire, usually classified under willing, contains as much feeling of pleasure as it does will. Wishing too overlaps, being a "speculative variation of willing mingled with a speculative and anticipatory feeling of pleasure" (1.376).

Desire should therefore be struck out of the definition of the third faculty, leaving it mere volition. But volition without desire is not voluntary; it is mere activity. Consequently, all activity, voluntary or not, should be brought under the third faculty. . . . (*ibid.*)

Peirce next points out that pleasure and pain, far from being genuine feelings, are only "recognized as such in a judgment." They are general predicates, cognitive in nature, *attached* to passive feeling. Passive feeling, which is neither active nor judges, should be made a special category. "[T]his is an element of all consciousness to which a distinct title ought to be given." In this way Peirce arrived at the *first* mode of consciousness, pure passive feeling.

Next Peirce states (*ibid.*) that "every phenomenon of our mental life is more or less cognition. Every emotion, every burst of passion, every exercise

* That is, deductions from statistical statements.

of will, is like cognition.” Mental phenomena, in so far as they are at all affective, active or reactive, have intentionality or meaning. Thus, all mental phenomena, not merely intellectual concepts, propositions and arguments, have a cognitive aspect. “Cognition, therefore,” Peirce concludes, “has nothing distinctive and cannot be regarded as a fundamental category.”

If, however, we ask whether there be not an element in cognition which is neither feeling, sense nor activity, we do find something, the faculty of learning, acquisition, memory and inference, synthesis.

So Peirce deduces his *third* category: synthetic consciousness.

Finally, by reflecting back upon “activity,” which is all that is left of Willing, we discover that “the only consciousness we have of it is the sense of resistance. We are conscious of hitting or getting hit, or meeting with a *fact*” (*ibid.*). This sense of resistance, of encountering opposition, is the second fundamental mode of consciousness, and it replaces Will as one of the basic divisions of mind.

It seems, then [Peirce sums up (1.377)], that the true categories of consciousness are: first, feeling, the consciousness which can be included within an instant of time, passive consciousness of quality, without recognition or analysis; second, consciousness of an interruption into the field of consciousness, sense of resistance, of an external fact, of another something; third, synthetic consciousness, binding time together, sense of learning, thought.

... The conception of quality ... would arise whenever feeling or the singular consciousness becomes prominent. The conception of relation comes from the dual consciousness ... The conception of mediation or synthesis springs out of the plural consciousness or sense of learning (1.378).

This concludes Peirce’s description of the triad in psychology. Written in 1885, it should be compared with Peirce’s first attempt in 1866 which yielded (1) Feelings, or elements of comprehension, (2) Efforts, or elements of extension and (3) Notions, or elements of information; and with later ones also. For Peirce was never satisfied with any one description of the categories of consciousness. This would explain the numerous attempts he made after 1885 to sharpen his distinctions. On one matter only Peirce never wavers. There are three radically different elements of consciousness, and no more. And these correspond to the conceptions of one, two and three.

This brings us back to the 1885 manuscript, “One, Two, Three: Fundamental Categories of Thought and Nature.” What stands out clearly is the emergence of three elementary conceptions applicable alike to the world of nature and the world of consciousness and thought.²⁸

28 The title of the essay, however, promised more than the essay contained. Robin summarizes the unpublished portion in part as follows. “... The three elements of consciousness must be capable of *physiological* explanation. Speculation as to whether the cell may contain all the fundamental elements of the universe.” *Op. cit.*, p. 110.

4. *The Triad in Physics and Biology*

In his article, “Was there a Metaphysical Club in Cambridge?”²⁹, Fisch has brought attention to an entry in the diary of F. E. Abbot, himself a philosopher and classmate of Peirce at Harvard. Dated 1886, it refers to an address given by the latter at the home of his brother in Cambridge.

Attended a meeting of “philosophers,” including John Fiske, James Royce and Perry to welcome Prof. Chas. S. Peirce of Johns Hopkins . . . and heard from him a new “logical theory of evolution.” Peirce begins with absolute or pure potentiality, with absolute Chance or negation of all law, even logical, to evolve at last Absolute Being and Absolute Law. . . .

Judging by the liberal use of inverted commas and the copious sprinkling of condescending capitals, one surmises that Abbot was more amused than enlightened by the thoughts of the “logical” Peirce. Those familiar with Peirce’s cosmological speculations of the 1890’s, as set forth, for example, in *A Guess at the Riddle* (1.400–416) and the first *Monist* article, “The Architecture of Theories” (6.32–34), will perceive in the journal entry the kernel of Peirce’s evolutionary cosmogony, in which chance is First, law is Second, and “the habit-taking tendency” is Third.

This bold saltus in the direction of explaining the laws of nature by chance and “logic” could not have taken place while Peirce remained tethered to the tenets of the mechanical philosophy. The open rupture with “necessitarian metaphysics,” as he was soon to call it (6.555–1887), came the year following his Cambridge talk.³⁰

Peirce based his case against strict determinism on two main arguments, both of them taken from biology.³¹ First, the endless variety of nature could not have been created by mechanical law.

It is sufficient to go out in the air and open one’s eyes to see that the world is not governed altogether by mechanism. . . . It is not the nature of uniformity to originate variation. . . . When we gaze upon the multifariousness of nature we are looking straight into the fact of a living spontaneity. A day’s ramble in the country ought to bring that home to us (6.553).

The argument is persuasive – the variety of nature does bespeak “a living spontaneity.” But it is not as strong as the second: growth is an illustration of *non-conservative*, that is, non-mechanical, action.

29. *Studies in the Philosophy of Charles S. Peirce, Second Series*, pp. 8–9.

30. See Peirce’s short article, “Science and Immortality,” published in the *Christian Register* of Boston on April 7, 1887. Reprinted in CP (6.548–56). Paragraphs 6.553–556 are especially relevant.

31. They are repeated in Peirce’s classic, “The Doctrine of Necessity Examined,” *The Monist* (1892). CP 6.35–65. This paper with its companion-piece, “Reply to the Necessitarians,” *The Monist* (1893), reprinted as Appendix A, *Collected Papers*, Volume VI. is a masterpiece of logical analysis. Among other things, it anticipates the 20th-century principle of uncertainty.

Then there is the great fact of growth, of evolution. I know that Herbert Spencer endeavors to show that evolution is the consequence of the mechanical principle of the conservation of energy. But his chapter on the subject is mathematically absurd. . . . The principle of the conservation of energy may . . . be stated in this form: whatever changes can be brought about by forces can equally happen in the reverse order . . . under the government of the same forces. Now, the essential of growth is that it takes place in one determinate direction, which is *not* reversed. It is thus an immediate corollary from the doctrine of the conservation of energy that growth is not the effect of force alone.

The world, then, is evidently not governed by blind law (6.554–55).

So concludes Peirce's earliest statement, challenging the doctrine of physical necessity. It is not a complete reversal of his original position. Merely, the laws of nature are no longer regarded as invariant, universal or exact. There is room for final causation and for genuine chance.

In Peirce's earlier writings on the uniformity of nature the illustrations had been drawn exclusively from physics. The order of nature, and regularity in general, was accounted for by the action of mechanical forces on fortuitously moving atoms. The fact that the arguments used against determinism are taken from biology is, therefore, highly significant. What brought about this change of focus which would eventually lead Peirce to explain the entire physical order along evolutionary lines?

We suppose it was due to the appearance of his "three conceptions" in biology and adduce in evidence the by-now familiar passage from *A Guess at the Riddle*, in which Peirce describes the argument of his book as "a following out of these three conceptions . . . from one field to another." One sentence is particularly relevant. "I had," he wrote (1.364), "no difficulty in following the lead into the domain of natural selection; and once arrived at that point, I was *irresistibly carried on* to speculations concerning physics" (emphasis added).

What was that triad in "the domain of natural selection?" It was the discovery of *three* modes of evolution,³² the first of which involved chance or pure spontaneity, the second, dyadic reactions, and the third, design and intelligence. It is to Peirce's credit that he saw all three modes of evolution operative in the universe. The first he tied to Darwinian evolution by accidental variations, and the destruction of species whose ability to reproduce was thereby decreased. The second Peirce linked to the cataclysmic theory, evolution due to sudden changes in the external environment and the breaking up of habits. The third is associated with Lamarck – evolution through the effect of habit and effort. It was the first and last modes that gave impetus to Peirce's cosmological speculations.

For, if an element of pure spontaneity and a tendency to form habits are

32. First described in "The Architecture of Theories" (1891), CP 6.13–17.

operative in the universe, the orderliness of nature need no longer be considered as something given once and for all. Law or regularity develops out of indeterminacy. To find out how the laws of nature came about becomes the first task of the physicist (1.408).

"I will begin the work with this guess," wrote Peirce in 1890. "Uniformities in the modes of action of things have come about by their taking habits.

At present, the course of events is approximately determined by law. In the past that approximation was less perfect; in the future it will be more perfect. . . . We look back toward a point in the infinitely distant past when there was no law but mere indeterminacy; we look forward to a point in the infinitely distant future when there will be no indeterminacy or chance but a complete reign of law (1.409).

Such is Peirce's guess at the riddle. "[T]hree elements are active in the world: first, chance; second, law; and third, habit-taking" (*ibid.*) This is the triad in physics.

C. First, Second, Third: The Most General Conceptions of Being (1890–1898)

Long ago in a preliminary draft of "On a New List of Categories" Peirce had written: "Upon the table of categories philosophy is erected – not merely metaphysics, but the philosophy . . . of every science." Discovered by reflective analysis of the phenomenon, these elementary conceptions of *thought* were not applied to *all being* until each category had been found to appear in nature. Discovering triads in nature, first in psychology, then in physiology and protoplasm itself,³³ again in "the domain of natural selection" and finally in physics, led Peirce to the following conclusion. The fundamental categories encountered in thought go down to the basic nature of things. Peirce broached this thought in 1890, when writing about the conceptions of first, second, and third:

. . . ideas so broad that they may be looked upon rather as moods or tones of thought than as definite notions. . . . Viewed as numerals, to be applied to what objects we like, they are indeed thin skeletons of thought, if not mere words. . . . [B]ut then the distinctions of philosophy are supposed to attempt something far more than that; they are intended to go down to the very essence of things, and if we are to make one single threefold philosophical distinction, it behooves us to ask beforehand what are the kinds of objects that are first, second, and third, not as so being counted, but in their own true characters (1.355).

33. Peirce's theory of protoplasm, first broached in the 1885 essay, "One, Two, Three," is discussed in terms of the three categories in *A Guess at the Riddle*. "The properties of protoplasm. . . are as follows: contractility, irritability, automatism, nutrition, metabolism respiration and reproduction; but these can all be summed up under the heads of sensibility, motion, and growth. These three properties are respectively first, second, and third."

We see here the shift from logical analysis – analysis of the phenomenon or whatever appears at any time in any way to the mind – to thinking about objects or things, including ideas themselves.

The objects or things which are first, second and third are carefully discriminated and *then* described phenomenologically. Giving to being the broadest possible interpretation, “to include ideas as well as things, and ideas that we fancy we have as much as ideas we do have” (8.328), the three ontological modes are found to be “...the being of positive qualitative possibility, the being of actual fact, and the being of law that will govern the facts in the future” (1.23). Put slightly differently (1.356):

The first is that whose being is simply in itself, not referring to anything nor lying behind anything. The second is that which is what it is by force of something to which it is second. The third is that which is what it is owing to things between which it mediates and which it brings into relation to each other.

In psychology, feeling is first; sense of reaction, of external fact, second; general conception or mediation, third. In physiology, sensibility is first; reflex action, second; the power of forming habits is third. In biology, the principle of accidental sporting is first; that of heredity, second; while generalization (through the elimination of unfavorable characters) is third. In cosmogonic physics, chance is first, law is second; and habit-taking, third.

Peirce’s ambition “to erect a philosophical edifice that shall outlast the vicissitudes of time” called for the laying of foundations that would be “deep and massive” (1.1). He hoped to raise up a system so comprehensive that “for a long time to come, the entire work of human reason . . . shall appear as the filling up of its details. The first step toward this is to find simple concepts applicable to every subject.” In 1898, when he wrote this, he had found them. The simple concepts applicable to every subject were Peirce’s universal categories: First, Second, and Third.

As constituent elements of all experience, they can be observed in reflective analysis. “I hold,” wrote Peirce in 1898, “that we can directly observe them in elements of whatever is at any time before the mind in any way” (1.23). The science that studies whatever is in any way or any sense present to the mind is Phaneroscopy.

Chapter V

PHANEROSCOPY: THE DESCRIPTION OF THE PHANERON

A. Phaneroscopy or Pure Phenomenology: Peirce and Husserl

When Peirce invented the term *phaneron* in about 1905, he had already divided the field of philosophy into three related parts. First was Phenomenology, a single study (1.190, 1903); second, Normative Science, which included aesthetics, ethics and logic; and finally, Metaphysics, similarly divided into three sections. Philosophy or *coenoscopy* was one of *three* sciences of discovery and stood midway between Mathematics, the formal science that draws necessary or probable conclusions from properly constructed hypotheses,¹ and *idioscopy*, or the special sciences. The latter required, in distinction from mathematics and philosophy, special instruments and methods for making their observations. All the sciences of discovery were observational and were arranged by Peirce in hierarchical order. In theory this means that the higher-ranking science draws principles from the science or sciences ranged below it. For example, logic draws its basic distinctions from phenomenology and ethics; ethics from aesthetics and phenomenology; and aesthetics, from phenomenology; while mathematics has application to every science, including phenomenology. We adduce this example only to show the fundamental place of the latter science in the philosophy of Peirce.

Phaneroscopy, or the description of the phaneron, differed from Peirce's earlier Phenomenology in name only. Believing that philosophy, in order to become scientific, ought to invent a technical vocabulary, he discarded the familiar word, *phenomenon*, and adopted a new nomenclature. This is made clear in a letter to James (Oct. 3, 1904). "I am not sure that it will do to call this science *phenomenology* owing to Hegel's *Phänomenologie* being somewhat different" (8.298). In the same letter James is lectured for his loose use of the term "pure experience": "What you call 'pure experience' is not experience at all, and certainly ought to have a name. It is downright bad morals to misuse words, for it prevents philosophy from becoming a science.

1. Cf. 1.240. "Mathematics . . . does not undertake to ascertain any matter of fact whatever, but merely posits hypotheses, and traces out their consequences. It is observational in so far as it makes constructions in the imagination according to abstract precepts, and then observes these imaginary objects, finding in them relations of parts not specified in the percept of construction."

My “phenomenon” *for which I must invent a new word* is very near your “pure experience” but not quite since I do not exclude time and speak of only *one* phenomenon (8.301, first consecutive emphasis mine).

Writing to Calderoni in c. 1905, he expresses himself as follows:

I believe in inventing new philosophical words in order to avoid the ambiguities of the familiar words. I use the word *phaneron* to mean all that is present to the mind in any way whatsoever, regardless of whether it be fact or figment. . . . (8.213).

Granting Peirce’s preference for the technical terms *phaneron* and *phaneroscopy*, we will, nevertheless, treat the older locutions, *phenomenon* and *phenomenology*, when used by Peirce in a philosophical sense, as synonymous with his neologisms. What do they mean? On the assumption that the reader is already familiar with Peirce’s definitions, we will take the liberty of setting down in a separate Appendix (pp. 103–104), the best-known or most interesting definitions found in *The Collected Papers*. Listed in chronological order, they will hereafter be referred to by the alphabetical letter assigned them in the appendix.

1. The *phenomenon* or *phaneron*. By this is meant “whatever is present at any time to the mind in any way” (B); “the collective total of all that is in any way or in any sense present to the mind . . .” (E).

1.1. There is only *one* phenomenon (8.301), taken as a formal unity. Every *phaneron* has Firstness, Secondness, and Thirdness.

2. *Phenomenology* or *Phaneroscopy*: “the description of the *phaneron*” (E); “sedulously avoids hypothetical explanations of any sort . . . simply scrutinizes the direct appearances” (F).

2.1. It brackets off all questions having to do with “how far the *phaneron* it studies corresponds to any realities” (F).

2.2. It has nothing to do with psychology (D).

2.3. Abstains from “all speculations as to any relation between its categories and physiological facts, cerebral or other” (F).

2.4. Makes “the ultimate analysis of all experiences” the first task of philosophy (A); analyzes “what kind of constituents there are in our thoughts and lives” (D).

2.5. The “Doctrine of Categories” (A); classifies and “studies the kinds of elements universally present in the phenomenon” (B); “simply contemplates the Universal Phenomenon and discusses its ubiquitous elements, Firstness, Secondness, and Thirdness, together perhaps with other series of categories” (C).

Marvin Farber is correct when he states that Peirce developed independently a science of phenomenology similar in intent to Edmund Husserl’s *pure* phenomenology.² Both are descriptive and go to the appearances them-

2. *Phenomenology and Existence*, p. 15.

selves, refrain from naturalistic explanations, perform an *epoché* with respect to the objective sciences and their findings, and confine themselves to the analysis of experience. They both saw phenomenology as fundamental, however, in altogether different senses.

For Peirce the aim of his science was to discover, by studying “the kinds of elements universally present in the phenomenon,” a set of categories which might then be applied to all nature and to all thought.³ This was, he considered, a major contribution to philosophy. Although he was aware, of and valued, as much as Kant, Hegel or Husserl, the paramount role of ideas or hypotheses in making understandable experience and nature – the inner world of consciousness and the outer world of physical events – he appreciated to a far less degree than Husserl the part played by consciousness in constituting the non-formal, “material” categories which shaped men’s views of reality. Thus, the later Husserl’s transcendental or constitutive phenomenology and Peirce’s phaneroscopy have little in common. Peirce started with the assumption that reality or the real is precisely that which is *independent* “of the vagaries of you or me” or “. . . how we may think or feel about it.”⁴ His phaneroscopy, thus, was not inconsistent with a thorough-going naturalism. It did not, as a matter of fact, seek to *correct* the natural sciences or found them anew. Genuine scientific activity, activated by the desire to learn and carried on by a community of investigators, trained in the methods of science, was *in the long run* self-correcting, or so Peirce considered. More sympathetic to naturalism, less radical in his critique of the science of his day than Husserl, Peirce was content to leave science to its practitioners, seeking – as logician – only to clarify its methods. As philosopher he was a great deal more ambitious. Using phenomenology as his starting-point, he would provide a conceptual frame for an all-inclusive, architectonic philosophy, based on a few concepts, founded in reflective analysis, and broad enough to encompass “the entire work of human reason.” In an earlier chapter we have described his search for these Categories. This is the first part of Peirce’s phenomenology. “Phenomenology ascertains and studies the kinds of elements universally present in the phenomenon . . .” (B, App. I). The second part remains, to *describe* those “ubiquitous elements, Firstness, Secondness, and Thirdness, together . . . with other series of categories” (C, App. I). It is to this task that we now turn.

3. See Chapter IV, Sec. C, pp. 74–75, above.

4. C. P. 5.311, 1868, and 8.13, 1871, respectively.

B. Firstness

By way of introduction let us take this early description of Firstness, written in 1890. “The idea of the absolutely first,” Peirce states (1.357), “must be entirely separated from all conception or reference to anything else. . . .

The first must therefore be present and immediate, so as not be second to a representation. It must be fresh and new, for if old it is second to its former state. It must be initiative, original, spontaneous, and free; otherwise it is second to a determining cause. It is also something vivid and conscious so only it avoid being the object of some sensation. It precedes all synthesis and all determination; it has no unity and no parts. It cannot be articulately thought; assert it, and it has already lost its characteristic innocence; for assertion always implies a denial of something else. Stop to think of it, and it has flown!

Do we meet with Firstness in experience? The clearest answer that we can give is that Peirce supposed the category, as described above, to be a constituent element of all that appears. It is the felt *quality* of experience taken *in toto* – present, immediate, uncategorized; pre-reflective; the “manifold of sensuous impressions” *before* thought, either analytical or synthetic, has taken place.

What the world was to Adam on the day he opened his eyes, before he had drawn any distinctions, or had become conscious of his own existence – that is first . . . fresh, new, initiative, original, spontaneous, free, vivid, conscious, and evanescent. Only, remember that every description of it must be false to it (*ibid.*).

Of all the categories it is the most fragile and elusive, since every description must be false to it. But the fact that it cannot be described does not mean that it cannot be indicated or imaginatively created. This indeed is what Peirce does to make known the category of Firstness, which he sometimes refers to Feeling, more often, as in the following passage, to Quality of Feeling.

Imagine, if you will, a consciousness in which there is no comparison, no relation, no recognized multiplicity . . . no change, no imagination of any modification of what is positively there, no reflexion – nothing but a simple positive character. Such a consciousness might be a smell of attar; or it might be an infinite dead ache; it might be the hearing of a piercing eternal whistle. In short, any simple and positive quality of feeling. . . . The quality of feeling is the true psychological representative of the first category of the immediate as it is in immediacy, of the present in its direct positive presentness (5.44, 1903).

Elsewhere Peirce lists as instances of qualities of feeling “the color of magenta . . . the taste of quinine, the quality of the emotion upon contemplating a fine mathematical demonstration, the quality of the feeling of

love..." (1.304, c. 1904). Even the tragedy *King Lear* has its own flavor or *sui generis* quality of feeling (1.531).

From these examples we can see that the range of qualities of feeling extends far beyond the usual continua of sensible qualities, which include colors, tastes, odors, sounds, aches and other bodily feelings. By imagining a consciousness or state of mind characterized by a single, positive character, such as the perfume of roses, we disclose a world of phenomena too often neglected by students of psychology and even philosophers. This *Aesthetic* dimension of experience has yet to be explored systematically. There is as yet no standard classification of the *emotions*,⁵ no widespread agreement among psychologists as to the nature or number of *simple feelings*, Peirce, for example, denying rightfully, I believe, that pleasure and pain are feelings at all;⁶ no analysis of *consciousness*, in spite of Freud's attempts, which goes deep enough to make room for the findings of psychoanalysis. Conscious-unconscious is a half-way house at best. If the conventional analysis of consciousness makes the unconscious problematic what may be at fault is the traditional account. Neither Plato's *alagon*, the *petites perceptions* of Leibniz nor the *id* of Nietzsche, Groddeck and Freud should be explained away entirely in terms of confused ideas, absence of knowledge or lack of internal awareness.

It is, therefore, a mark of the utility of Peirce's method that he discovers through analysis of the phaneron, or all that is present in any way at any time to consciousness; that *every* experience, from such relatively simple acts as perceiving sounds, odors, colors, etc., to such relatively complex psychic activities as experiencing emotions, witnessing a tragedy or doing or reviewing the proof of a mathematical theorem, has its own *sui generis* quality of feeling.

Phenomenology, then, reveals a whole world of moods, feeling-tones, aesthetic qualities, states of mind to a large extent overlooked by the psychologist. Rather, it has fallen to the poets and artists to bring out this dimension, and this fact drastically limits the range of aesthetic experience because the poet is *primarily* the maker of aesthetic objects, in the eyes of society, if not his own. Aesthetic experience in the minds of most moderns is restricted to contemplating works of art and artistic performances, even those ever popular performances, sporting events. When the sports-aesthete participates in games, the sense of play is often missing. He "works" at the game, is

5. Psychologists have classified the emotions according to feeling (pleasurable, unpleasurable, strained, relaxed, exciting, depressing), their objects or aims, their manner of rising and falling (sudden, gradual, fluctuating, steady), their physical concomitants (e.g., the James-Lange theory), and so on. See W. Wundt, *Outlines of Psychology*, 2d rev. ed., (N. Y.: Steichart & Co., 1907); J. P. Sartre, *Outline for a Theory of the Emotions*.

6. *Supra*, p. 70.

elated or depressed by the winning or the losing. The aesthetic element is distorted. It is the same with living areas. Churches, temples, theaters, hotels and even office buildings in the greater commercial centers are made to please the eye. The places men build to live in today, and most congregate in cities and their outlying areas, are constructed on non-aesthetic, quasi-functional, lines.⁷ In large part, of course, this is the result of economic factors. But the dehumanizing effect of crowdedness, commercial squalor, narrow spaces, lack of light and natural views goes largely unnoticed, although felt. Living itself, emptied of the aesthetic dimension, becomes abstract. For large numbers in capitalistic societies, at least, the beautiful is a creation, made to be bought and sold. That includes clothes, cosmetics as well as objects of art. Put in Marxian terms, the aesthetic becomes a commodity. That bread should be a commodity in a given society follows from the nature of that society. That the aesthetic should be an item of exchange results from a misunderstanding of the potentialities of man's nature, man's relation to man, and to his environment.

Thus, Peirce's emphasis on Firstness is no personal idiosyncrasy as his fondness for testing wines was considered by many of his Brahmin Cambridge friends. Of all the aspects of experience, it was the one most overlooked, although closest to the eye. First! And, following his analysis, it was ubiquitous, tinging every experience.

We shall analyze Peirce's Firstness further. What he is describing is the Phenomenon, that which is present to the mind, from *one* aspect, in its presentness, apart from anything else. Not altogether unlike Hegel's first view of thought – sense immediacy – before any distinction between ego and thing has been made,⁸ Firstness more closely resembles Kant's manifold of sense-impressions, to which it has been compared.⁹ In itself, Firstness is neither abstraction nor full reality, for Peirce, but that immediate sensuous aspect of the Phenomenon, which is what it is, independent of anything else. It is the pre-predicative aspect of experience, the pure situation before categories are applied.

That Firstness of itself does not exhaust reality requires no explanation. *Esse* is more than *percipi*. But that what is First is not an abstraction – that

7. Even the furnishings of modern homes have been affected by this trend. "Today's best furniture designers work for big firms that purvey furniture to corporations, institutions, and public facilities; there are no designers of note in this country who devote themselves to furniture for private dwellings. The householder who wishes to own good modern furniture is obliged to choose from among the same designs used in schools, offices, and air terminals, and consequently there are not many householders who so wish." *The New Yorker*, April 10, 1971, p. 93.

8. *The Phenomenology of Mind*, trans. by J. B. Baillie (Harper Torchbooks, N. Y., 1967), Ch. I.

9. Referring to Firstness, Peirce remarks (I.306, 1894) that "it is the leading idea of Kant's 'manifold of sense.'"

the sky appears to us positively now as blue before we make any judgment – may not be apparent to every mind; to Hegel's, for example, or so Peirce asseverated. "When anything is present to the mind," he wrote in 1903 (5.44), "the very first and simplest character to be noted in it . . . is its presentness," or immediacy. So far Peirce and Hegel agree. They part company when the latter makes immediacy an abstraction. To use a well-known example from the *Phenomenology*,¹⁰ the Now which is nighttime becomes the Now which is day. As nighttime, it is not day; as daytime, it is not night. Thus the Now, or pure immediacy temporally viewed, was not immediate but something mediated for Hegel, "determined through and by *means* of the fact that something else, namely day and night, is not."¹¹ It is, for Hegel, a universal.¹² So immediacy or the present, in its presentness, became an abstraction.

This was never Peirce's understanding. What is present to the mind in present immediacy – the present – "is just what it is regardless of the absent, regardless of past and future. It is such as it is, utterly ignoring everything else. Consequently, it cannot be *abstracted* . . ." (5.44). The present being positively such as it is, ignoring everything else, its true psychic representatives are qualities of feeling (*ibid.*). While qualities of feeling "show myriad-fold variety, far beyond what the psychologists admit . . . [T]his variety . . . is in them only in so far as they are compared and gathered into collections. But as they are in their presentness, each is sole and unique . . ." (*ibid.*). Qualities of feeling, thus, comprise the first category, which is defined as follows:

The first category . . . is Quality of Feeling, or whatever is such as it is positively and regardless of aught else.

C. *The Omnipresence of Firstness, and the Reality of Thirdness*

To complete our description of Firstness and pave the way for a description of Peirce's second and third categories, it should be noted that qualities of feeling, in themselves, are neither thoughts nor sensations but are a constituent element of whatever is present at any time in any way to the mind. From a phenomenological standpoint, it is important to stress this distinction in order to exhibit the complexity of ideas. The remainder of this section

10. *Ibid.*, pp. 151–152.

11. *Ibid.*, p. 152.

12. *Ibid.* "A simple entity of this sort, which is by and through negation, which is neither this or that, which is a *not-this*, and with equal indifference this as well as that . . . is a Universal."

will be devoted to demonstrating the truths of these three propositions from a set of definitions, derived from Peirce's own writings, and a single postulate. A note on Peirce's realism is also included.

DEFINITIONS I-III

I. By *Quality of Feeling* is meant whatever is such as it is positively and regardless of anything else (5.44). It should be conceived, not as an object, but as a suchness or character which is *sui generis*. Logically speaking, it corresponds to what is expressed by monadic predicates as "large," "white," "a man," etc. (1.304, 301, 370, and 3.63). Subjectively, qualities of feeling are feelings as such, or monads. A quality of feeling is a first.

II. By *Dyadic Relation* or Second is meant a relation of dependence between two subjects, which is independent of any third (4.3). A *reaction* is a dyadic relation constituted by "the true actions of one thing upon another" (1.365). Dyadic relations, neither of whose relates is a monad or quality, are genuine. E.g., the fact that John loves Joan, that A is one mile from B. All other dyadic relations are relations of reason, or relations of identity (1.365). E.g., the fact that scarlet is red, this stove is hot, Tully is Cicero.

III. By *Representation*, or thought, is meant a sign which stands in relation to its Object in such a way as to determine an Interpretant. All representations are Mediations. A representation is a Third (2.228, 2.92, 2.247, and 4.3).

Note 1. A Third may be accidental or genuine, which brings us to Peirce's doctrine concerning the reality of Thirdness, or general ideas.

The statement that "general principles are really operative in nature" (5.101), a seemingly metaphysical one, has its basis in phenomenology as well, as the following story, related by Peirce (1.366), was intended to show. It concerns the unfortunate merchant who threw a date stone away and thereby killed the genie's son. For this, the genie blamed the merchant. "What monstrous injustice . . .", Peirce lamented, "to hold that poor merchant responsible for such an accident!" This illustrates accidental thirdness. Had the merchant aimed the stone, the case would have been different, for then there would have been the relation of aiming to bring into the unity of a single triadic fact, aimer, thing aimed, and object aimed at.

Thus, intentionality characterizes genuine thirdness. In cases where there are "no rational agents as such," Peirce continued (*ibid.*), Nature "herself often supplies the place of the intention . . . in making a Thirdness genuine and not merely accidental." A spark is ignited, falls into a keg of gunpowder, and results in an explosion of considerable force. How does nature bring this about? queries Peirce. His answer: "By virtue of an *intelligible law*"

(emphasis added). The conclusion, much generalized, comes to this: “[I]ntelligibility, or reason objectified, makes Thirdness genuine.”

In another context Peirce writes that a law or general principle is a *representation* which corresponds to a reality (5.96). An example is Newton’s first law. In one sense, it is nothing more than a general formula or symbol. But a physical law, which approximates reality, is not just a “mere” representation, referring to future experiences. It is “forced upon us in experience” itself (5.97). Metaphysically stated, “General principles are really operative in nature” (5.101). Phenomenologically considered, general ideas or conscious intentions affect the course of natural events. This is Peirce’s “scholastic realism”: general ideas are real.

POSTULATE¹³

I. There are at most three indecomposable elements to be expected in the phaneron: those which are simply positive totals, called Qualities of Feeling; those which involve dependence but not composition, which are called Reactions or Dyadic Relations; and those which involve combinations, called Mediations or Representations (suggested by 4.3–1898, and 1.298–99–1908).

Definition IV. By *Phaneron* or *Phenomenon* is meant the collective total of all that is present in any way at any time to the mind.

That *Qualities of feeling are not thoughts* is proved as follows. A quality of feeling is a First (Dfn. I). A thought or representation is a Third (Dfn. III). Since a first cannot be a third, it is evident that qualities of feeling are not thoughts.

Note. A quality of feeling is uninterpreted, for otherwise it would be second to a judgment. Hence, qualities of feeling are neither feelings of pleasure and pain nor emotions. For feelings of pleasure and pain involve valuative judgments, while every emotion has a subject or objective reference.¹⁴

That *Qualities of feeling are not sensations* may be shown thus. A sensation, Peirce wrote (7.543), has two mutually dependent parts: “first, the feeling, and second, the sense of its assertiveness, of my being compelled to have it.” Now a relation of dependence between two subjects, independent of a third, is a dyadic relation or Second (Dfn. I). Consequently, sensations are Seconds. Since qualities of feeling are Firsts, and what is first is not a second, it follows that qualities of feeling are not sensations.

13. The postulation of three phenomenological categories is the result of Peirce’s analysis of the phenomenon in his essay, “On a New List of Categories,” described in Ch. II above.

14. On the cognitive nature of pleasure and pain, see Ch. IV above; on emotions as judgments about external facts, see Ch. II above.

That *A quality of feeling is a constituent element of whatever is present in any way at any time to the mind* may now be demonstrated. All that is present to the mind are qualities of feeling, reactions or dyadic relations, and mediations or representations (Post. I and Dfn. IV). Now reactions are dyadic relations (Dfn. II), and all dyadic relations may be divided into two classes: essential and accidental, according to their subjects (1.454–56). An essential dyad contains two monadic subjects. E.g., the fact that scarlet is red. A quality of feeling is a monad (Dfn. I). Thus, essential dyads contain as elements qualities of feeling. Accidental dyads are of two kinds, inherential and relational (1.463). An inherential dyad, for example, the fact that this stove is black or that star is bright, has one monadic subject. Ergo, inherential dyads contain a quality of feeling. Relational dyads have two subjects, neither of which is monadic (1.463). Take as illustration the examples given by Peirce (1.467): A is one mile from B, and A kills B. The relations as such, which constitute the individual fact, *being one mile distant from, kills*, have, undeniably, qualitative characters, irrespective of any representation. There being no other kind of dyad, besides essential and accidental, a quality of feeling is a constituent element of any dyadic relation. Second, a representation or thought is a sign which stands for something to somebody or some interpretant (dfn. III). Now a sign in itself is a *representamen*, not a representation. Nor can it be a dyadic relation, for what is in itself is a monad, a positive total. Since all that is present to the mind are representations, dyadic relations, and qualities of feelings (post. I), a sign in itself is a quality of feeling; and representations, being thought-signs, contain an element of feeling as such. Thus, quality of feeling is a constituent element of whatever is present in any way at any time to the mind, which was to be proved.

D. Secondness – The Category of Fact and Mutual Opposition

It was not for Hegel's logic, which Peirce perceived to be a logic of events, that the latter took Hegel to task. "... The element of secondness, of *hard fact*, is not accorded its due place in his system..." he wrote (1.524). And elsewhere (1.368): "He has usually overlooked external Secondness, altogether. In other words, he has committed the trifling oversight of forgetting that there is a real world with real actions and reactions" (1.368).

This oversight, if such it is, is remedied in Peirce's system. There is a real world, a sensuous, reactant world, independent of thought (although thinkable), which is characterized by Secondness. It is the arena of daily existence where we come up against obstacles that will not give way to our fancies, against actualities, which resist us and oppose each other, where for every action, there is an equal and opposite reaction. Such is the world of existent

fact; such is the nature of existence. To exist is not to be perceived but to stand against another, take a place, oppose other bodies, resist and react, to belong to a particular time and place. Certainly, wherever there is a phenomenon there is a quality. But quality is only a part of the phaneron.

Facts also concern subjects which are material substances. We do not see them as we see qualities . . . But we feel facts resist our will. That is why facts are proverbially called brutal. Now mere qualities do not resist. It is the matter that resists. Even in actual sensation there is a reaction. . . . So, that rightly understood, it is correct to say that we immediately, that is, directly perceive matter (1.420).

What is excluded from fact is any generality and with it, all permanence and conditionality (1.427). Every fact has a here and now (1.435); it is absolutely determinate (1.434). The *existence* of fact "consists in fight" (1.435). The fact "takes place." "It has its here and now; and into that place it must crowd its way" (1.432).

The category of Secondness, with its emphasis on sheer facticity in the material universe itself, should help dispel the shrouds of metaphysical fog raised up by Peirce's final predilection for monistic explanation. The critic of Hegel, who takes him to task for not according the element of secondness its proper place in his system, commits a similar error by making the "Law of Mind," which stipulates that all things at bottom are mental,¹⁵ the principle of principles. This reductivism,¹⁶ which seems to the writer, at least, to cloud Peirce's metaphysics, runs counter to the sense of Peirce's phenomenology. While the lower category (numerically) can be prescinded from any higher, the phenomenon itself is not reducible either to feeling, dyadic relation, or "mere" representation.

These strictures on Peirce's ontology, notwithstanding, his description of the category of secondness is exceptionally clear. As the first category comprises Qualities of Feeling, or whatever is such as it is positively and regardless of anything else, so the category of Secondness consists of dyadic relations, or whatever is such as it is, owing to a second, but irrespective of any third. Reactant seconds are characterized by struggle, effort and resistance, action and reaction, compulsion or force. All seconds, reactant or not, involve opposition.

15. Matter is inert mind, physical laws are the consequence of a habit-taking tendency which is pervasive in the universe.

Cf. Peirce's discussion of Objective Idealism, 6.24–25, particularly its conclusion: "The one intelligible theory of the universe is . . . that matter is effete mind, inveterate habits becoming physical laws."

16. Inspired in part by a wish to escape the dilemma of Cartesian dualism. "The old dualistic notion of mind and matter, so prominent in Cartesianism, as two radically different kinds of substances, will hardly find defenders today," wrote Peirce in 1890. "Rejecting this, we are driven to some form of hylopathy, otherwise called monism." (6.24)

That struggle characterizes all experience, even the most fragile, the following passage makes evident:

The second category that I find, the next simplest feature common to all that comes to the mind, is the element of struggle.

This is present even in such a rudimentary fragment of an experience as a simple feeling. For such a feeling always has a degree of vividness, high or low; and this vividness is a sense of commotion, an action and reaction, between our soul and the stimulus. If, in the endeavor to find some idea which does not involve the element of struggle, we imagine a universe that consists of a single quality that never changes, still there must be some steadiness in this imagination, or else we could not think about and ask whether there was an object having any positive suchness. Now this steadiness of the hypothesis that enables us to think about it – and to mentally manipulate it – . . . consists in this, that if our mental manipulation is delicate enough, the hypothesis will resist being changed. Now there can be no resistance where there is nothing of the nature of struggle or forceful action.

By struggle I must explain that I mean mutual action between two things regardless of any sort of third or medium, and in particular regardless of any law of action (1.322).*

This masterful description, confined to an evanescent subject, displays Peirce at his fullest powers. In particular, it brings out the difference between a mutual action, an actual event, and any law which may help explain it. A law will enable us to predict what will happen, given a particular set of circumstances. But laws do not compel things to happen. The laws of thermodynamics do not force a steam piston to move up and down. “Have your necessitarianism if you approve of it;” wrote Peirce in 1903 (*ibid.*); “but still I think you must admit that no law of nature makes a stone fall, or a Leyden jar to discharge, or a steam engine to work.”

It is not only in perception that we experience secondness. “Imagine yourself,” Peirce asks the reader (5.45)

making a strong muscular effort, say that of pressing with all your might against a half-open door. Obviously, there is a sense of resistance. There could not be effort without an equal resistance any more than there could be a resistance without an equal effort that resists. Action and reaction are equal. If you find that the door is pushed open in spite of you, you will say that it was the person on the other side that acted and you that resisted. In general, we call the one that succeeds by means of his effort the *agent* and the one that fails the *patient*. But as far as the element of Struggle is concerned, there is no difference between being a patient and being an agent. It is the result that decides. . . .

The element of reaction may be obscured at times. Peirce offers repeated examples of this. You are walking quietly down a street and a man carrying a ladder suddenly pokes you with it. “Your impression will be that he struck you with great violence and that you made not the slightest resistance;

* The distinction between genuine and non-genuine seconds will be discussed hereafter.

although in fact you must have resisted with a force equal to the blow” (*ibid.*). Or, suppose that you are in darkness when a tremendous flash of lightning suddenly splits the sky.

... you are ready to admit having received a shock and being acted upon, but that you reacted you may be inclined to deny. You certainly did so, however, and are conscious of having done so. The sense of shock is as much a sense of resisting as of being acted upon.

“So it is,” Peirce concludes, “when anything strikes the senses. The outward excitement succeeds in producing its effect on you, while you in turn produce no discernible effect upon it” (*ibid.*). Thus, your own response is overlooked. Even inward excitations, mental images and feelings, as we have seen, offer some resistance.¹⁷ So it follows that in every experience, whether of “inner” or “outer” objects, there is an element of reaction.

Not all seconds are genuine, however. We need now to examine a major distinction, between genuine and degenerate, in Peirce’s phenomenology. In keeping with the phenomenological commitment, which confines our attention to the appearances themselves, we should not identify *genuine* with that which is real. Whether a genuine second, for example, corresponds to any reality is a metaphysical question. The phenomenologist simply scrutinizes appearances. *Genuine*, therefore, in the present context, is a term that applies to the phenomenon alone, and it means *pure or unmixed*.

Qualities of feeling, or firstnesses, occupy a privileged place in Peirce’s system. All Firstnesses are genuine; they have no degenerate or mixed mode of being. For a “mixed” first would be a dyad or polyad, which is a contradiction in terms. That is not the case, however, with Secondness. For of seconds only dyadic relations, neither of whose subjects are monads, are genuine. All other dyadic relations are mixed or degenerate in as much as at least one relate is a monad or quality.

Genuine seconds are “real” dyadic relations, constituted by external fact. “A real relation,” Peirce writes (1.365), “subsists in virtue of a [single] fact which would be totally impossible were either of the related objects destroyed.” They are in some cases “the true actions of one thing upon another” (*ibid.*) In others the relation is non-dynamical, although there is opposition. The fact that X strikes Y (dynamical) or that A is one mile from B are examples of such seconds. In contrast, degenerate or internal seconds are relations of reason¹⁸ or are relations of identity¹⁹ which “arise from the mind setting one part of a notion into relation with another” (*ibid.*)

17. For example, a mental construction of a geometric figure. While modified in the mind, the mental image persists in some measure or degree.

18. “A relation of reason subsists in virtue of two facts, one only of which would be destroyed on the annihilation of either of the relates” (1.365).

19. “Identity is the relation that everything bears to itself” (*ibid.*).

This same distinction applies to triadic relations or Thirds. Genuine thirds or mediations are triadic relations not reducible to *dual* ones. The familiar example, A gives B to C, is not an aggregate of dual facts, as A gives B, C is given B, A gives to C, and so on. A and B, B and C, C and A, which are in each instance first and second, are brought into relation to each other by the single *triadic* relation, *giving* – a *mediating* third. But, as with Seconds, not all triadic relations are pure or unmixed. The triadic relation, A who is father of B is grandfather of C represents three subjects as standing in relation to each other. Nevertheless, there is no genuine mediation, for the relation expressed is reducible to two dyads: A is father of B, and B is father of C. The two dyadic facts, which are real dyadic relations and not mere relations of reason, are brought together in the unity of a single thought or representation. The relation so constituted is a triadic relation of reason, and not a genuine triad.¹⁹

We are now ready to examine Thirdness in its constitutive or Interpretative aspect.

E. Thirdness – The Category of Meaning

The theme of Peirce's song is as simple in its conception as its elaboration, on occasion, is difficult. *Three elements* constitute all experiences. These are the universal categories of thought (and of nature, although this claim goes beyond the purview of phaneroscopy or pure phenomenology). It is the full appreciation of this general fact which gives to Peirce's phaneroscopy its singular breadth and genuine dialectical character. Firstness, as we have seen, is the category which imparts to experience its distinctive quality, its freshness, variety, life and freedom. Freedom. Not freedom from physical determination; that is a metaphysical proposition, but freedom from any second. The blueness of the sky *qua* blueness is such as it is positively, independent of anything else. At the same time, Firstness is a component of Secondness. Secondness in turn gives to experience its character of arbitrariness, of struggle, of sheer facticity; in effect, of there being *another*.²⁰ Before the French word "second" was brought into the English language, Peirce reminds us (1.325), "*other* was merely the ordinal number corresponding to *two*." Finally, Thirdness, bringing first and second into intellectual unity, endows

19. That orange is intermediate between, or is a mixture of, red and yellow is a *monadically* degenerate triad (1.473), being a combination of two monadic dyads or facts: that orange contains an element of yellow and also an element of red.

20. The word "being" the reader will realize is used in the broad sense in which Peirce uses it to include "ideas as well as things, and ideas that we fancy we have as well as ideas we do have." Cf. Ch. IV, Sec. C.

the sensuous, reactant world man encounters in experience with meaning and intelligibility. In other words, it is Thirdness, or Representation, which gives experience its meaning.

1. The Doctrine of Interpretation

Peirce's doctrine of interpretation is broader than his pragmatic theory of meaning. The latter tells us how to define our intellectual ideas or concepts. Pragmatism "does not undertake to say in what the meanings of all signs consist," Peirce wrote in 1905 (5.8), "but merely to lay down a method of determining the meaning of intellectual concepts, that is, of those upon which reasonings may turn." But, of course, intellectual activity of that order comprises only a fraction of mental life. "The sum of it all," Peirce admitted (5.212) in an undelivered lecture on Pragmatism, written in 1903, "is that our logically controlled thoughts compose a small part of the mind." In this same passage, he stated, "Concerning that quite uncontrolled part of the mind," a reference to ordinary perceptual judgments which contain unconscious inferences, "logical maxims have as little to do with as the growth of hair and nails."

For a long time before the stage had been reached when theoretical science and philosophy were born, men experienced a world seemingly opaque to reason, the world of hard, stubborn fact. And, for a long time, life was seen primarily as a struggle, a struggle between man and nature. Most visible was the precariousness of existence, the sheer dependence of man on the irrational, the unpredictable, forces of nature. Only much later in man's development is this *two-sided* view, in which action and reaction predominate, overcome; and the analysis of experience, in terms of unmediated polarities, replaced by a larger conception, which is the conception of Thirdness. Such is one interpretation to be placed on these words of Peirce:

First and second, patient and agent, yes and no, are categories which enable us roughly to describe the facts of experience, and they satisfy the mind for a very long time. But at last they are found inadequate, and the third is the conception which is then called for (1.359).

Thus man *becomes* rational. In collision with the world of insistent, inescapable facts, by force of external circumstance he progresses from being agent and patient in blind reaction to being controller and interpreter of his world. Controller and interpreter of facts. While not excluding other modes of evolution or growth, Peirce stresses the role played by outward compulsion in nearly all of his phenomenological writings.²¹ The world of brute

21. Cf. 1.322, 326, 335, 427–28, 431–32; 2.84, 89; 5.45–46, 49–50.

existence, most evident today in social relations if not always admitted, is prior in fact, not merely in time, to the world of general ideas. Reaction is second, Mediation is third. If this interpretation is justified, and it goes beyond phenomenological analysis, Peirce, we infer, saw reflection forced upon man in the ongoing struggle for existence. As in time the element of conflict was more and more hidden, when certain groups became increasingly masters of their fate, the notion of man as essentially rational was given an emphasis out of keeping with the historical, as well as human, facts.

This *developmental* view is certainly not inconsistent with the implied dialectic in Peirce's thought, the stress on immediate qualities, mutual oppositions, and genuine syntheses. In fact, it seems called for, both on the ground of his known evolutionism and as a corrective to overly idealistic interpretations of Peirce. Nor does it stand in conflict with Peirce's stated world goal or *summum bonum*: "the development of concrete reasonableness" (5.4), "the development of Reason" (1.615). By no means does it derogate the category of general ideas. General principles, whether mental or physical, "*are really operative in nature*", a point discussed earlier. Further, "Not only may generals be real," we find Peirce writing in 1905, "but they may also be *physically efficient*, not in every metaphysical sense, but in the common-sense acceptation in which human purposes are physically efficient" (5.431). As time goes by, general ideas grow in importance. "In its higher stages, evolution takes place more and more largely through self-control, and this gives the pragmatist a sort of justification for making rational purport to be general" (5.433). The last, dialectically speaking, is first in ultimate importance. Nonetheless, it is last and part of a dialectical unity. Quality and fact, fact and idea, event and law, human purpose and material conditions, are mutually related.

From a phenomenological standpoint, there is no sharp boundary line between the outer world of fact and the inner world of thought.

It comes to this: there are some ideas – *objects*, be it remembered – which will have their own way, and we cannot swerve them much . . . They make up or indicate the outward world. There are other ideas which seem very docile . . . They form the inner world. Yet it will be found sometimes that the inner world has its surprises for us. It isn't so exactly as we would have it as we fancy. It is rather our wishes which conform to it . . . (7.438).

As for the world of ideas, "the moderate amount of control which we exercise upon" it is not "nearly so direct as we fancy it to be. We go about instinctively, and without being aware how circuitously we proceed to change the current of thought" (*ibid.*). This represents the kernel of Peirce's doctrine of critical common-sensism, in which instinctive beliefs have to be submitted to logical analysis. It may also be taken as a warning against all *a priori* reasoning.

Thought, taken as *interpretation*, is operative on all three categorial levels, not just on the logical sphere of conscious inference. To illustrate, let us take first the case of emotional experience, which belongs to the domain of feeling and imagination.

Emotions frequently are problematic with regard to their objects, origins and meaning. That is to say, feelings do not come labeled; they require interpretation. For example: John awakes one morning with a heavy feeling, seemingly causeless. This is certainly not an uncommon experience. He finds that he breathes with difficulty. On dressing and going out, he is scarcely aware of his surroundings, although it is spring, the day is bright and the trees and flowers are budding. Oh, he exclaims. It is not quite melancholy, although it is far from joy. Then suddenly there appears in his mind an image – of a face, perhaps – which he recognizes with a mixture of joy and longing. His mood of depression is now connected with an object, this face. Slowly it dawns on John that the emotion he is experiencing is love. He is in love with this person whose face he sees but who is absent in fact. This is a moment of interpretation. A quality of feeling is connected with an object, and the two are brought into unity, without any conscious inference, by a third conception or *interpretant*, which is John thinking, I love her, I miss her. Or, vary the experiment slightly. Instead of a face appearing to John, let us suppose that it is a scene that he recollects, in which he has behaved badly. Feeling and object are brought into unity by John thinking, I acted in a ridiculous manner. As soon as meaning arises, the problematic disappears. To use Spinoza's terms, a confused idea is replaced by an adequate notion. The emotional experience is interpreted; in the first case it is love which John is experiencing, in the second, shame.

There is still another possibility. The emotion or affect might not get interpreted, in which case it would gradually dissipate or, possibly, persist as a mood. To the psychoanalyst this might suggest that it is not the affect which is repressed, an observation in accordance with Freud's own views, but the meaning of the unrecalable experience. I point this out to show how phenomenology, and Peirce's phenomenology in particular, can uncover facts of interest to the student of depth psychology. From a psychological standpoint, the following is also worthy of notice.

The Interpretant need not be a mental sign or representation. It may be, in Peirce's words, "an action or experience, or . . . even a quality of feeling" (8.332). The first would be a "symptom," the second pure, uninterpreted affect. This distinction led Peirce to speak of three kinds of interpretants. First, the *immediate* interpretant, one which corresponds to some vague quality of feeling; second, a *dynamical* interpretant, or an actual effect; last, an *ultimate* or *final* interpretant, this being what "would finally be decided if consideration of the matter were carried so far that an ultimate opinion

were reached” (8.314 & 8.332-33). The examples given above, involving John, are of final interpretants. The feeling of malaise that is later connected with some image exemplifies the immediate. And, were John to sit down some time during the day and write a letter to the girl he loves, or were he to go out of his way to avoid meeting the person who humiliated him, these actions, these actual effects, would be dynamical interpretants of emotional experience.²²

Thus far we have looked upon emotional experience and interpretation. Now we must consider formal argument and its three basic types, deductive, inductive and hypothetical.²³ In logical argument the *conclusion* is the interpretant – of the premisses, as the following passage indicates.

In an argument the premisses form a representation of the conclusion, because they indicate the interpretant of the argument . . . The premisses may afford a likeness, index or symbol of the conclusion (1.559–1867).

We may illustrate this concretely by first constructing a deductive argument in the logical form of *Barbara*. For example: All farmers work on the land.

22. The burden of my interpretation rests on a letter written to William James in 1909, where Peirce speaks of three kinds of interpretants, the Immediate, the Dynamical, and the Ultimate, or Final (8.314). Those who would inquire further into his Doctrine of interpretants are referred especially to an unpublished paper, entitled “A Survey of Pragmatism,” which was written in 1906, and appears in the *Collected Papers*, 4.464–96. To give some indication of the change in emphasis, paragraphs 475–76, somewhat abridged, follow. “Now the problem of what the ‘meaning’ of an *intellectual* concept is” – emphasis is added – “can only be solved by the study of interpretants, or proper signicate effects, of signs. These we find to be of three general classes. . . . The first proper signicate effect of a sign is a feeling produced by it. . . . This ‘emotional interpretant,’ may amount to much more than. . . feeling of recognition. . . . The performance of a piece of concerted music is a sign. It conveys, and is intended to convey, the composer’s musical ideas; but these usually consist merely in a series of feelings. If a sign produces any further signicate effect, it will do so through the mediation of the emotional interpretant, and such further effect will always involve an effort. I call it the energetic interpretant. The effect may be a muscular one, as it is in the case of the command to ground arms; but it is much more usually an exertion upon the Inner World, a mental effort. It never can be the meaning of an intellectual concept, since it is a single act, while such a concept is of a general nature. But what further kind of effect can there be?”

“In advance of ascertaining the nature of this effect, it will be convenient to adopt a designation for it, and I will call it the *logical interpretant*, without as yet determining whether this term shall extend to anything beside the meaning of a general concept, though certainly closely related to that, or not. Shall we say that this effect may be a thought, that is to say, a mental sign? No doubt, it may be so; only, if this sign be of an intellectual kind – as it would have to be – it must itself have a logical interpretant; so that it cannot be the *ultimate* logical interpretant of the concept. It can be proved that the only mental effect that can be so produced and that is not a sign but of general application is a *habit-change*; meaning by a habit-change a modification of a person’s tendencies toward action. . . .”

And elsewhere (5.480): “Every concept, every general proposition of the great edifice of science, first came to us as a conjecture. These ideas are the *first logical interpretants* of the phenomena that suggest them. . . .” This is Peirce at his suggestive best.

23. Cf., “Deduction, Induction, and Hypothesis,” *Popular Science Monthly*, v. 13, pp. 470–82, 1878. *Coll. Papers*, 2.619–44.

This man is a farmer. Therefore, This man works on the land.^{23a} In deductive argument, what is premisses is a general sign or *symbol*, and a “case.” The conclusion, or interpretant, represents the consequence of interpreting the symbol as a general rule applicable to a case. In inductive reasoning, the premisses, taken together, indicate some general fact or rule. Thus: This man is a farmer. This man works on the land. (Induction) All farmers work on the land. Again, the conclusion is an interpretant of the premisses, these forming an “index” of the conclusion. If induction is inference from a sample, admittedly the sample given in the example is small, but it illustrates inductive reasoning.

The case of hypothesis is more complex. In so far as the premisses of an hypothesis show a resemblance between two “objects,” whence we may infer they resemble each other in other respects as well, the premisses “afford . . . a likeness of the conclusion.” Using our example again, we commence with a fact (to be explained): This man works on the land. Next we adopt some general rule related to the fact: All farmers work on the land. Putting the two together, we frame the supposition: This man is a farmer. Here the premisses do form a likeness of the conclusion.²⁴ But is this always the case? “Hypothesis,” Peirce writes (2.624), “is where we find some very curious circumstance, which would be explained by the supposition that it was a case of a certain general rule, and thereupon adopt that supposition.” No mention of “likeness” is made. Are we to infer that *all* hypothesis somehow involves seeing a resemblance between the case to be explained and some general rule? This view gains in merit when we consider that what is *supposed* in hypothesis is that the *explicandum* is an instance (case) of a certain general rule. Peirce gives the following illustration. Fossil remains of fishes are found far in the interior of a country. “To explain the phenomenon, we suppose the sea once washed over the land. This is . . . hypothesis” (2.625). Sea – fishes – land. We form an icon, or mental image. And we conjecture, The sea washed over the land. The “premisses” are an icon of the conclusion. Stated in the form of a hypothetical syllogism: “If the sea once washed over the land, fossil remains of fishes would (probably) be found in the interior of the country. Fossil remains have been found. The sea once washed over the land.”

23a. *Ibid.*, where a similar argument is constructed.

24. Cf. 1.559. “In hypothesis something *like* the conclusion is proved, that is, the premisses form a likeness of the conclusion. Take for example the following argument:

M is, for instance, p^i , p^{ii} , p^{iii} , and p^{iv} ;

S is p^i , p^{ii} , p^{iii} , and p^{iv} .

Therefore, S is M.

Here the first premiss amounts to this, “ p^i , p^{ii} , p^{iii} and p^{iv} ” is a likeness of M, and thus the premisses are or represent a likeness of the conclusion.

The importance, indeed, the centrality, of hypothesis for Peirce cannot be overstated. "It is the only logical operation which introduces any new idea; for induction does nothing but determine a value, and deduction merely evolves the necessary consequences of a pure hypothesis.

Deduction proves that something *must* be; Induction, shows that something is *actually* operative; Abduction merely suggests that something *may be*. . . .

No reason whatsoever can be given for it, as far as I can discover; and it needs no reason, since it merely offers suggestions (5.171–1903).

How does one explain all the true discoveries made by a process "in which there is no compulsiveness nor tendency to compulsiveness?" (5.172). It is not by chance. I will give Peirce's answer and leave the subject as no longer germane to our inquiry. "...[M]an has a certain Insight . . . into the Thirdness, the general elements, of Nature. An Insight, I call it, because it is referred to the same general class of operations to which Perceptive Judgments belong." Here may be a clue as to how the premisses in abduction form a likeness of the conclusion, how the conclusion is an interpretant of an icon. "This Faculty," Peirce continues, "is at the same time of the general nature of Instinct,

resembling the instincts of animals in its so far surpassing the general powers of our reason, and for its directing us as if we were in possession of facts that are entirely beyond the reach of our sense" (5.173).

One last question. What does Peirce say of *premisses* which are neither deductions, inductions, or explanatory hypotheses? These, he tells us (5.116), are perceptual judgments. "Our perceptual judgments are the first premisses of all our reasonings . . ." The perceptual judgment is "entirely unlike a percept" (7.629). The latter "is reality. It is not in propositional form" (5.568). Thus, an hallucination, if genuine, is just as much a percept as a color or sound. The percept is "an image or moving picture or other exhibition" (5.116) and belongs to the class of qualities. While the percept "presents itself ready made," the *perceptual judgment* in contrast purports to *represent* the percept. Thus, there is in perceptual judgments an element of Thirdness, or mediation (7.629). "All our other judgments are so many theories whose only justification is that they have been and will be borne out by perceptual judgments" (5.116).

To sum up, all Thirdness from the phenomenological standpoint is Representation or thought. By Representation or thought is meant a sign which stands in relation to its Object in such a way as to determine an Interpretant or meaning. The Interpretant is that which brings into relation the sign itself and its object.

The sign may have more than one Object. But the set of objects may be regarded as making up one complex Object. To illustrate this, let us use two

of Peirce's examples: (1) the fact that A murders B. This dual fact has as object one complex object, A and B. It may be interpreted in a variety of ways but, however interpreted, a Third or Interpretant must be introduced. Take Peirce's explication (1.474): "Every dyad," he writes, "by a particularization, evolves a dyadic triad. Thus, A murders B is a generalization of A shoots a bullet, and that bullet fatally wounds B." The notion of bullet is the third which brings together the sign itself, which is the fact imagined in some way, with its object, A and B. (2) The sentence, "Ezekiel loveth Huldah" (2.295). The word "loveth" is a symbol or third which is associated with an idea or first, which is the mental icon of someone loving another. In the sentence, "Ezekiel" and "Huldah" are indices, or seconds. "Now the effect of the word 'loveth' is that the pair of objects denoted by the pair of indices Ezekiel and Huldah is represented by the icon, or the image we have in our minds of a lover and his beloved."

From these examples we see that where thought arises a Third or Interpretant must of necessity be introduced. But something more needs to be clarified. Experience, with its stubborn element of Reaction, is not *constituted* by Thirdness or thought. Rather, it is *interpreted*. This is as far as Peirce's phenomenology can bring us. Whether the world has a logical structure or meaningful order, independent of thought, is a scientific/metaphysical question for Peirce, which phenomenology is incompetent to decide. That Thirdness is a genuine element in man's experience might count in favor of the proposition that Thirdness is operative in nature or the real world, but it would by no means be decisive.²⁵

2. *The Interdependence of the Categories*

One of the chief difficulties with Peirce's philosophy, as it is formulated, is that each element – I-ness, II-ness and III-ness – may be treated on the ontological level as separate modes of reality while, *in experience*, the categories are always taken to be interdependent and universally present. The consequences this ambiguity holds for Peirce's metaphysics and social thought we shall presently discuss.

25. For a discussion of the reality of Thirdness, see 5.93–107, which begins, "I proceed to argue that Thirdness is operative in Nature..." and concludes, after stating (5.105), "Thirdness, as I use the term is only a synonym for Representation," with the following: "Analogy suggests that the laws of nature are ideas or resolutions in the mind of some vast consciousness, who whether supreme or subordinate, is a Deity relatively to us. I do not approve of mixing up Religion and Philosophy; but as a purely philosophical hypothesis, that has the advantage of being supported by analogy. Yet I cannot clearly see beyond that support to the imagination it is of any scientific service..." The last sentence is crucial.

We return to the theme, the burden of which is that *three* elements constitute all experience. We do not question this thesis but ask, how do they relate to each other? Is the movement from one to the other merely linear or is it dialectic? In his earliest essay on the Categories, analyzed at considerable length in the second chapter above, Peirce made an unusually interesting suggestion which may throw some light on the topic we are now considering. "If we had but one impression," Peirce wrote (1.554), "it would not be required to be reduced to unity. . . . But since there is a manifold of impressions, we have a feeling of complication or confusion, which leads us to differentiate this impression from that. . . ." This *necessity to differentiate*, born of desire or need for clarity and order, leads necessarily to the conception of a second or Other. "[T]hen," Peirce writes, "having been differentiated, they require to be brought back to unity."

Introibit Thirdness. "Now they are not brought to unity," continues Peirce, until we conceive them together as being *ours*, that is, until we refer them to a conception as their interpretant. Thus, the reference to an interpretant arises upon the holding together of diverse impressions. . . . It . . . is the last conception. . . .

What this shows is how *III*ness or Representation, i.e., reference to an interpretant, arises out of the categories "above" it, how *III*ness is a *reunification* of *I*ness and *II*ness, the first two stages or "moments" in the dialectic of consciousness, and how *I*ness generates its opposite, *II*ness, both of which are brought together into a new unity of consciousness by a mediating Third, or Interpretant.

We have shown in an earlier section of this chapter that every representation contains an element of feeling as such. The proof there given was a mechanical one. From what has been just said about the interdependence of the categories and their arising out of the need to "differentiate this impression from that," we should *expect* that representations would bear some witness to their origin. Their *iconic* character, however vestigial the resemblance or likeness is, constitutes the lone link to original *I*ness.²⁶

It remains to be shown that there is necessarily an element of Secondness in every Representation. This follows mechanically from the definition of a

26. Two questions arise in this connection both having to do with symbols. One, how do written or spoken words, whose meanings are fixed by convention, resemble what they express? Second, how do purely symbolic expressions as mathematical formulas resemble the relations they express? Peirce's answer to the first question is that every word has *associated* with it a "mental icon." Thus, the word "loves" is associated with the icon we have in our mind of someone loving another (2.295). This would be association by resemblance. As for purely symbolic expressions Peirce follows Kant in believing that even the most abstract kind of reasoning requires a mental diagram as an aid to thinking. Thus, the algebraic expression, " $a^2 + b^2 = c^2$," is an abstract but necessary way of perceptualizing the relations between the sum of the squares of the sides and the square of the diagonal of a right triangle. Such an icon, of course, is far from being a strict likeness or copy.

representation as a sign. A sign is always *of* something. In the genesis of the categories, as given in the New List essay of 1867, the dependence of Thirdness, or Representation, on Secondness, or reference to an object, is even more clearly indicated. The conception of another arises whenever a quality is abstracted from the manifold. When we prescind the quality of blackness from the total phenomenon, say a black Franklin stove, the two, stove and blackness, are seen to be related as first to second. But it is first and second which are brought into unity by Thirdness. Hence, every Representation has an element of Secondness.

F. Phenomenology and Order

I have pointed to a contradiction in Peirce's philosophy which I believe has serious consequences for Peirce's metaphysics, or that branch of it which deals with cosmology, and more importantly for his social thought. While, in experience, the categories disclosed by phenomenological analysis are taken to be interdependent and universally present, the categories on which Peirce's philosophy is based may be treated *ontologically* as separate modes of reality. In defense of Peirce one may respond, But the phenomenological and ontological categories are not the same. This is an answer, which Peirce himself would not accept. Leaving aside considerations of symmetry as of peripheral importance, Peirce leaves no doubt that the categories he named Firstness, Secondness and Thirdness are the fundamental categories of nature *and* of thought. Further, it is the main business of no other science but phenomenology to provide the basic categories on which all philosophy, including metaphysics, is to be founded.

Stated briefly, this is what the contradiction is. On the phenomenological level we may prescind the first category from the second and third, the second from the third, and we may not prescind the second from the first nor the third from second. However, the central postulate of phenomenology, as we have come to see, is that these *three elements* are universally present in the phenomenon, as the collective total of all that is present in any way at any time to consciousness. Writing to William James in 1904, Peirce states: "My 'phenomenon' . . . is very near your 'pure experience' but not quite since I do not exclude time and speak of only *one* phenomenon" (8.301). There is only *one* phenomenon. That is very important. Whatever is present to the mind has Firstness, Secondness and Thirdness. Nor do I, he wrote, "exclude time." In every experience of time, a topic not dealt with here, we are conscious of past impinging upon present and the present on the future, a form of Secondness or reaction; equally we are conscious of the *passage* of time, which is a synthesis or binding together of past and future in the

unity of a single consciousness. In consciousness, therefore, First, Second and Third are always found together.

But this is not the case on the *ontological* level. In the evolution of the cosmos Peirce sees a *linear* development from spontaneity or pure feeling as such, which is Firstness without Secondness or Thirdness, to absolute law and total determination, which is Secondness, by way of habit-taking, or generalization of reaction. The "contradiction" lies in beginning with pure being, bare consciousness or Firstness, and *going to* Community (Thirdness), instead of starting, as he does in his phenomenology, with the whole phenomenon; or with the Kosmos, as Heraclitus did; or with the *polis*, as Aristotle did; or with society as a whole dividing into economic classes, as Marx did.

This treatment of the categories as separate modes of reality on the ontological level has serious consequences first for Peirce's metaphysics. To suppose a condition of being in which nothing is determinate and everything is possible, where there is not even a rudimentary spatio-temporal order, is to suppose a "moment" when all was in separation, awaiting a beginning. (Existence itself would be a later stage in cosmic evolution.) Grant there was a beginning, as Peirce seemed to think (1.412); then such a moment "before" seems an unnecessary hypothesis. What does it explain? "Out of the womb of indeterminacy . . . there would have come something, by the principle of Firstness, which we may call a flash" (1.412). What is this principle of Firstness which now becomes a first cause? Peirce gives us no definite answer. If it is "potential being," how does it actualize itself? Alternatively, deny there was a beginning. But a moment outside of time, "before" temporal order evolved, involves a contradiction in terms.

In sum, an absolute beginning, absolute Firstness, should be treated as a limiting concept, a mental abstraction like a mathematical point or an absolute instant of time, having exactly as much and no more reality. We are dealing with an hypothesis, of course. What seems unwarranted, however, is not that there *is* Firstness but that Firstness is also said to be *before* and *independent of* existence. To make Firstness his point of departure, and not the evolving cosmos which he perceived so clearly, seems a mistake.

The same reasoning applies to *social* order. The fact is social community has been achieved. It may have been much greater in the past than now. Darwinian struggle notwithstanding, in all likelihood, it was. But this supposition is barred. It runs counter to Peirce's assumption that Order (Thirdness) develops evolutionarily, comes into being out of an earlier state of less order. A time when there was no social order, be it family, clan, village, state or any other form of community, is in human affairs as much an abstraction as a point existing outside of space or a moment standing outside of time. Such fictions can easily be imagined, just as we can imagine Robinson Crusoe alone on his island, forgetting that Crusoe had parents

in England and was himself the product and the beneficiary of Western technology and 18th-century social and cultural institutions.

Social community has been achieved. There we must start. We start with the fact of human community as *given*, to be transformed or modified by human agency. It is an error to postulate, as Peirce did, universal community as an *end*, coming about through the evolving expansion of human consciousness and sympathy. The goal itself is undeniably attractive and may in time conquer the human mind.

Thus far, however, what history has shown is non-linear development, fractionalization of community into parts (real Secondness), into sub-groups, into races, classes, nations, for the most part clashing, whatever be the causes; and *then* new syntheses, growing out of changing material conditions and conscious social *praxis* (genuine Thirdness). Such a materialistic-idealistic philosophy is implicit in Peirce and arises out of his earliest phenomenological studies when he first discovered his fundamental categories, First, Second, and Third. They should be applied widely. But they must be conceived dialectically and not as a linear series.



APPENDIX

- A. (1.280, 1902). The first . . . is *Phenomenology*, or the Doctrine of Categories, whose business is to unravel the tangled skein of all that in any sense appears and wind it into distinct forms; or in other words, to make the ultimate analysis of all experiences the first task to which philosophy has to apply itself.
- B. (1.186, 1903). . . . Phenomenology ascertains and studies the kinds of elements universally present in the phenomenon; meaning by the phenomenon whatever is present at any time to the mind in any way.
- C. (5.121, 1903). Philosophy has three grand divisions. The first is Phenomenology, which simply contemplates the Universal Phenomenon and discusses its ubiquitous elements, Firstness, Secondness, and Thirdness, together perhaps with other series of categories.
- D. (8.295, 1904, Letter to William James). As I understand you . . . the proposition you are arguing* is a proposition in what I have called phenomenology, that is, just the analysis of what kind of constituents there are in our thoughts and lives (whether these be valid or invalid being aside from the question). It is a branch of philosophy I am most deeply interested in and which I have worked upon almost as much as I have upon logic. It has nothing to do with psychology.
- E. (1.284, 1905). Phaneroscopy is the description of the *phaneron*; and by the *phaneron* I mean the collective total of all that is in any way or in any sense present to the mind, quite regardless of whether it corresponds to any real thing or not. . . . So far as I have developed this science of phaneroscopy, it is occupied with the formal elements of the *phaneron*. I know that there is another series of elements imperfectly represented by Hegel's Categories. But I have been unable to give any satisfactory account of them.

* that consciousness is "a constituent principle of all experience" (8.294).

- F. (1.287, 1905). It will be plain from what has been said that phaneroscopy has nothing at all to do with the question of how far the phanerons it studies correspond to any realities. It religiously abstains from all speculation as to any relations between its categories and physiological facts, cerebral or other. It does not undertake, but sedulously avoids, hypothetical explanations of any sort. It simply scrutinizes the direct appearances. . . . The students' great effort is not to be influenced by any tradition, any authority, any reasons for supposing that such and such ought to be the facts, or any fancies of any kind, and to confine himself to honest, single-minded observation of the appearances. . . .

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