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IDEALISM AND COHERENCE:
ONE REHABILITATION ATTEMPT

RICHARD SYLVAN



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IDEALISM AND COHERENCE:

one rehabilitation attempt

Recent history has not been kind to idealism or its coherence ideals. But then, neither were idealists particularly kind to alternative philosophical doctrine when they were in ascendancy late last century. A generous pluralism has rarely been a conspicuous feature of dominant philosophic ways. These days are so far little better than previous days - as a future, more objective about the present than the present is, will reveal.

The present exercise, that of attempting a rehabilitation job on idealism and coherence, furthers the project, initiated as the "semantic metamorphosis of metaphysics" (in SM), of showing that, in a more generous setting, all time-tested philosophical theories are structurally sound and can be restored. The project can now be better appreciated as part of a grander pluralistic program, of letting a thousand philosophies flourish. More exactly, the fuller project is that of revealing, in a detailed way (much more detailed, in the end, than broad semantical excursions permit), how *every persistent philosophical theory*, no matter how unfashionable from time to time, *is correct* in a duly liberated framework.

To a large extent such rehabilitations are made feasible by significant advances in logical technology, and especially in ultra-modal intensional logic. Quite at variance, then, with the aims of its main founders, contemporary logic has, among other achievements, supplied technology which enables much improved rehabilitation of other, often opposed, often dilapidated positions.¹ Similar repairs could not have been effected by earlier workers who lacked the present technology. For these reasons too, the rehabilitations will not usually be entirely authentic restorations. But historical reconstruction, which looks much the same on the outside, even if the subsurface materials are different and modern, is not the prime objective (though hopefully such investigations *will* contribute to a better appreciation of what historical philosophers were doing and might have been about). As rehabilitation of an injured person is future-oriented, designed to assist the person in 'making a living or playing a part in the life of society' or the like, so rehabilitation of a partly defunct philosophy aims, in general, not only to roughly restore it, as some sort of functioning museum piece (though that too is not without genuine interest), but to put it to work in the on-going life of philosophy, especially to

¹ A good illustration is afforded by Mike Dunn's reconstruction work on structural parts of idealism, specifically on intrinsic properties and internal relations, applying advances in relevance logic. For details see J.M. Dunn, 'Relevant predication 2: Intrinsic properties and internal relations', rough draft, University of Indiana, 1988. It seems evident that there are many treasures to be obtained in archaeological investigations - excavation and rehabilitation - of idealism and its diverse parts.

contribute to the resolution of philosophical problems which have so far resisted previous efforts. Both idealism and coherence constructions have important contributions to make in this regard; for both can assist materially in helping to account for the puzzling, but evident enough, organisational features of Nature. A beginning, a very small beginning, will be made on explaining some of these features, making use the rehabilitated positions.

* * * * *

Idealism and coherence do fit together, snugly enough, in the way that late practitioners of neo-Hegelian idealism came to emphasize. But they are not entirely inseparable. In particular, coherence theory has significant roles to play not just in a wider idealist setting than neo-Hegelianism, but outside idealism altogether. Conversely, idealism can get along without, and for a long historical time did without, a coherence theory of truth, or even a substitute theory of *truth*. (No doubt idealism could, at absolute worst, have solved its problems as regards truth by *eliminativism*, to the effect that such referential notions are not needed in philosophy - rather as recent referentialism is trying to solve its problems as to recalcitrant intentionality by a crude eliminativism - to the effect that 'such nebulous intentional notions as belief, hope, regret are not needed in science' and so can be eliminated altogether.) These interconnections of idealism and coherence deserve somewhat fuller explication.

A coherence theory of truth became a significant component of later idealism, of metaphysical idealisms of the past century or so. Thus, in particular, it was adopted by Anglo-American philosophers in the absolute idealist tradition, such as Bradley, Joachim, and Blanshard. But broad leading features of the theory can be found in the founder of that tradition, in Hegel,² who 'spoke of absolute truth as the final synthesis of universal and individual, concrete and abstract factors' (Reese p.589); and thereafter it runs through neo-Hegelianism; thus for instance according to Croce, 'truth is a perfect relationship in our ideas'.

While truth in terms of coherence is historically coupled with, and very congenial to idealism, the theory is however by no means confined to recognised idealists. The coherence theory of truth is also coupled (even sometimes identified) with Rationalism (as opposed to Empiricism). Rationalism and Empiricism are said to parallel Idealism and Realism, respectively. Inclusion of rationalism would put Plato and Neo-Platonists into the coherence orbit. Certainly, anyway, reason is to be granted a primary role in truth and explanation. Hegel

² Many authors assert that Hegel's theory "implies" a coherence theory of truth. According to Hegel on rationalism, which he proceeded to equate with idealism, the 'marks of systematic unity become the test of truth'. Without doubt the coherence theory is found primarily, but not only, in metaphysicians influenced by Hegel.

of course tried to combine idealist and rationalist streams with his identification of Real and Rational (allegedly following Parmenides). Very differently, the coherence theory overlaps logical positivism. It was taken up, for instance, by those logical positivists (such as Neurath and the early Carnap) worried by the intrusion of metaphysics under correspondence theories which posited an 'independent domain of reality'. However there is an evident case, based on idealistic restrictions flowing from verification principles, for regarding such positivists as covert idealists. The connection with the latent idealism of logical positivism comes through the grounding of coherence theory in the flux of experience - in the mass of untidy ideas so received. It is the coherence of the comprehensive bundle *including* experience that is at issue. But latent idealism is not the key. For coherence theories are closely related to pragmatic theories of truth, maintained by empiricists significantly removed from metaphysical idealism. Conversely, varieties of idealism can and have been sketched by philosophers who did not advance coherence theories of truth, but either offered no theories at all (as in pre-nineteenth century times, when *truth* was not highly placed on philosophical agendas), or who indicated different theories. Historical connections between idealisms and coherence theories are accordingly complex, and, outside neo-Hegelianism, slack.³

Nonetheless a serious, and even decisive, obstacle in the way of metaphysical idealism has been taken - certainly by a "realistically" prejudiced opposition - to be the failure of the coherence theory of truth. Certainly then, repair of a coherence theory removes a major obstacle to idealism. But more, rectification of a coherence theory enables intrusion or insertion of significant idealist themes, idealist notions and objects. It is in this way especially, that shoring up a coherence theory gives a new lease of life to idealism.

To put part of the point a little differently, and little more precisely. Something *like* a coherence theory of truth is indispensable to metaphysical idealism, when adequately formulated to include a theory of truth. For some characterisation of truth is now [rightly taken as] an essential part of a metaphysical theory; and an idealist characterisation has to allow for the shaping of truth by theory and in particular by *ideational* input. That is, the requisite truth theory has to pull together, in a coherent way, control by experience, ideas and so on, with ideational fashioning. Therefore, if coherence theories of truth can be refuted, idealisms are in

³ Connections with intuitionism and constructivism are even slacker. Though intuitionism and idealism share a common source, Kant (not an original source for idealism nor one really central to it), and though they share some doctrine, still there need be nothing particularly constructivist about idealism. And the idea of dropping or questioning some of the traditional "laws of thought", the principle of excluded middle in particular, on constructivist grounds, did not occur to most historical metaphysical idealists and probably would not have appealed to them. Conversely, intuitionism does not depend, in any critical way, upon a coherence theory of truth. While it can no doubt use one, it can also work with a suitably adjusted semantical theory and perhaps even a correspondence one.

deep trouble; whence a favourite line of attack on idealisms. Conversely, to rehabilitate a coherence theory is to advance idealism.

* * * * *

I should like to dedicate this booklet to Nick Rescher, now America's most prolific philosopher, but for whose energy the booklet could not have taken its present shape, indeed but for whose work it would no doubt not have happened at all.

ON IDEALISM

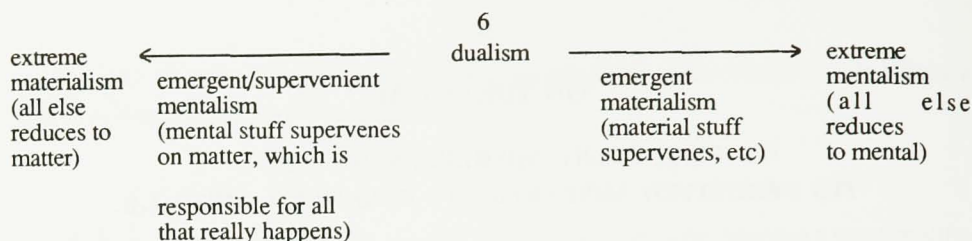
ITS PERSISTENT MISREPRESENTATION, ITS PERCEIVED MISTAKES, ITS PERENNIAL MESSAGE.

Idealism has arisen and flourished in modern Western philosophy largely as a defence against the advances and excesses of materialism. The three earlier significant waves of idealism in England for instance - Cambridge neo-Platonism, Berkeleyan subjective idealism, and neo-Hegelianism - all arose in reaction to scientifically engendered naturalism and mechanism, and what was often seen as accompanying materialism in science: atheism or even fundamentalism as regards religion, and anarchism or libertarianism in politics (for details, see Passmore p.50). The excesses of materialism, and along with it (curiously?) elements of fundamentalism and libertarianism,⁴ have been repeated since the last wave of idealism, especially in the main centres for the dissemination of Anglo-American philosophy, USA and UK, and a due reaction is setting in, more marked outside professional philosophy (which typically lags cultural adaptations) than within. From the data available, it is a straightforward prediction that a further significant wave of idealism is taking shape. Now may be the time, in the formative stage, before the next wave has taken determinate shape, to try (so far as such enterprise is even feasible) to influence forthcoming intellectual developments.

1. The new philosophical resurgence of idealism unnecessarily carries the same load of bad old assumptions.

Idealism, despite its merits, is not an ideal reaction to materialist and consumerist excesses. Idealism and materialism are like two sides of a faulty currency; they share similar defective assumptions, which need to be indicated, however badly, to make the subsequent drift of argument more intelligible. The first of these grand assumptions - the either-or object assumption, rejected by genuine object-theories - is that everything is either material or mental, either matter and its variants, such as energy, or else mind stuff and its variants, such as spirit. The main positions can be depicted in terms of linear diagram (better seen as imposed on a cylinder, so that the similar reductionistic endpoints become adjacent):

⁴ Explanation of some of these collocations is not so far to seek. Atheism is an obvious concomitant of materialism - while fundamentalism is an extreme reaction to these combined forms, which however shares much else in the dominant social paradigm with them (e.g. commitment to maximal economic growth, to a work ethic, exploitative attitudes to nature, etc.). One of the more complex ideological connections of libertarianism with materialism proceeds through an individualistic reduction program, invariably coupled with materialism, to elements of "free enterprise" capitalism; see JB p.752. A reverse linkage from libertarianism to materialism runs through a Cartesian degradation of all but free economic agents and their property interests to mere resources, free from exploitation.



As in politics, there are various attempts to evade these unsatisfactory options by escaping into a further dimension, typically involving some neutral stuff or combination stuff (mind-matter, as in panpsychism; cf. wavicles in quantumism). But what is at fault is, in important part, is the stuff idea itself, that everything is composed of some matter-mind stuff. There is a significant alternative to the triv(al)ium:- the one, the other, both somehow - and that is: neither. Many items are not stuff at all, not *made* of, or *up* of, anything. Many items are, furthermore, neither there inside heads or in the mind or else out there in the scientifically-delivered world (as the item-theory of JB is at pains to explain). Typically accompanying such a limited-object assumption, of inside (mental) or outside (physical) items only - is an assumption of limited methods, that there is but a very limited range of epistemic methods that provide knowledge or reliable information. As regards methods, there need be little separating epistemologically-driven idealism from empiricism.

The inside-outside way of rephrasing the limited-item assumption brings us rapidly to two further shared assumptions of both idealism and its standard materialist opposition (often reattired as scientific realism these days, whence idealism, still the other, becomes anti-realism). One of those further assumptions is that of the exhaustiveness of subjective-objective distinction, whence derivatively the supposedly exhaustive classification of idealisms themselves into subjective (like Berkeleyian phenomenism) and objective (e.g. absolutism). This exhaustiveness assumption has had its most damaging impact, not in metaphysics, but in value theory, where it has been repeatedly used to try to exclude nonobjective positions (which offer a nonobjective but subjectively-detached account of values). Only a little further removed is the other larger assumption, that the opposites of these rotten distinctions - mind-matter, inner-outer, subjective-objective - all fit together into a single "reality". It is the shared anti-pluralist assumption of a unique actual world (critically examined in Sylvan). As Nagel puts it succinctly if opaquely:⁵

The deep source of both idealism and its objectifying opposite is the same: a conviction that [there exists] a single world [which] cannot contain both irreducible points of view and irreducible objective reality - that one of them must be what there

⁵ In one of his several baffling attempts to state the matter in 79, pp.212-3. Nagel later (e.g. in 86) loses sight of these deep insights, whose real significance he appears to have failed to appreciate.

really is and the other somehow reducible to or dependent on it. This is a very powerful idea: To deny it is ... to deny that there is a single world.

These trouble-making assumptions are among the reasons for abandoning narrower idealism, having salvaged worthwhile components. But these grand defective assumptions were not a reason for the decline of idealism; after all, like commitment to the dominant social paradigm, they were shared by the main, realistically-oriented opposition. yet the twentieth century demise of idealism is real enough. In a recent research guide, which failed to sense new idealistic stirrings, idealism is pronounced intellectually finished: 'Idealism has been so firmly trounced and repudiated over the past half-century and more than it is now difficult to realise what powerful hold it had on British philosophy from the 1870s until the 1920s' (Tice and Slaven, p.146). Idealism was defeated, it is often said, through an apparently exhausted and uninspiring and antiscientific research program, with a major - bright, young - shift in philosophical fashions, and under supposedly trenchant criticism from Moore and Russell and in America Dewey. The reasons for the rapid decline of neo-Hegelian idealism, more complex than that, need not detain us, except for one; that idealism was soundly refuted by Moore, who emerged as philosophical hero of the day and the new way. It will be shown that Moore's refutation, without historically significant, is entirely inadequate.

Now after a long cycle of unfashionability, aided by some mainstream philosophic suppression, idealism is making a recovery. Within philosophy, it has reappeared as anti-realism. It has surfaced as well within relativism, and, in weak and disguised form, as internal realism (in nondevious formulations thereof). It has also emerged in an ultraweak form, conceptual idealism, likewise alleged compatible with scientific realism, in Rescher's eclectic philosophy. It will be shown, using conceptual idealism as detailed working example, that *these* philosophical forms are logically inadequate. More important, outside drably conservative professional philosophy, idealism, never substantially abandoned in folk ideology, is undoubtedly away and running again.⁶ Much deeper environmental thought has, like the romantic tradition from which it evolved, taken an idealistic direction. Two important examples concern, firstly, recognition of certain active self-organising, more than merely material, wholes, such as the Earth (the Gaia hypothesis in more extravagant form⁷) and more

⁶ Despite the marked decrease in popular belief in a personal god in Australasia, by decided contrast with U.S.A., there remains very extensive belief in some sorts of spiritual items or life-forces in nature. There is then, a considerable popular constituency for any smart revival of idealism (such as certain deeper environmentalisms could be) to draw upon. Professional philosophy remains, of course, substantially, even increasingly, out of touch with popular thinking, and even impervious to it; rather Anglo-American philosophy looks for direction to reductionistic science.

⁷ At the bottom, the Gaia hypothesis claims that various terrestrial parameters and structural details, in particular the temperature and chemical composition of the Earth's atmosphere, are actively regulated

comprehensively the Universe, and secondly, and overlapping the first, the (pantheistic) reenchantment idea. Quite differently, reflection on the universe from a high-tech cosmological, rather than an environmental, standpoint, has led towards furtherance of a different idealist tradition, neo-platonism (for example, among thinkers without deeper environmental commitments, such as Leslie and, more ambivalently, Davies).

These apparently different, and in fact very different, positions are pulled together under the one heading, Idealism, with the help of the grand defective assumptions. For example, what distinguishes self-organising systems must be somehow internal, subjective and spiritual. Similarly, ideal items, or Ideals, since not material, get accounted mental. For this sort of reason, neo-platonism, while not denying material objects, but typically downgrading them, gets accounted idealism. Indeed original idea(l)isms were of this type. It is important, to get anywhere intellectually in the idealist terrain, and to see how much survives, to be rather more careful as to types of idealism.

Though the term 'idealism' is said, quite regularly, to have been 'first used philosophically by Leibniz at the start of the 18th century', *he* applied the term to Plato's thought, contrasting it with the materialism of Epicurus. He might also have applied the term, as 19th century Germans did, to Parmenides' scheme of things or to parts of early Indian philosophy. 'The term thus designates philosophies which regard the mental or ideational as the *key* to the nature of reality' (Reese p.243). Not everything need be a matter of, or reduce to, ideational items; but they must feature, in a key way, in metaphysical accounting. That is the core of (metaphysical) idealism.⁸

by the sum of life on Earth, by the biota. In Lovelock's work, however, many other nonequivalent forms of the hypothesis are conflated with the basic claims as to atmospheric temperature and composition (see e.g. conflated with the basic claims as to atmospheric temperature and composition (see e.g. his 88). In more extravagant forms, which the Gaia title encourages, the terrestrial system is not only construed as a nonadditive sum ("nonlinear" system), but a life-force or spiritual equivalent is ascribed to the Earth and sometimes intelligence as well (thus e.g. Pedler p.11). We are even beginning to witness, in small circles, a return to elements of a pagan spirituality (where for instance environmentally significant items have their own guardians) which the established Christian church long suppressed and *had* largely eradicated.

⁸ In the Anglo-American literature, *idealism* is often characterised in a decidedly narrower way, convenient no doubt for easier refutation, which however then defeats the intended *exhaustive* contrast with materialism or naturalism. Thus for instance Baldwin, who asserts that metaphysical idealism is 'any theory which maintains the universe to be throughout the work or embodiment of reason or mind' (p.500), and that the 'diametrical opposite ... is materialism ... or naturalism, according to [which] ... the universe is simply a brute fact, or collocation of brute facts, under the sway of mechanical law' (p.500). Sometimes idealism is even redefined in a narrowly reductive way, as 'the family of doctrines revolving around the contention that the object is dependent on, and constituted by, the experiencing object', with the ahistorical result that 'idealism ... is found only in modern philosophy' (Eslick p.340)! By contrast again, consider Broad's curious, but nonetheless historically based, characterisation: 'By "Idealism" I understand the doctrine that the nature of the

Item-theory can easily ride along with such a conception, for instance in the theoretic form: *There are ideal objects which are crucial in explaining and comprehending how actual things are, how things in actual worlds are.* Indeed since the core of idealism can be interpreted in item-theory and item-theory is coherent, this core of idealism is coherent. But modern idealisms usually go conspicuously further in connecting “the” actual world or nature with a structure of ideas or of judging subjects, and often also, what is worse (what is antithetic to item-theory), proposing reductions thereto. Thus, for instance, the putatively exhaustive forms of German idealism - *all* however reductive idealisms. These consist, it is routinely said of the subjective idealism of Fichte, ‘the world is a posit of the judging subject’, the objective idealism of Schelling, ‘nature ... is simply “visible intelligence”’, and the absolute idealism of Hegel, supposedly synthesizing all these, where “all is subordinate to thought”.

All these types of idealism, and source positions such as Kant's transcendental idealism, are *metaphysical* idealisms. These are regularly distinguished from the (overlapping) category of *epistemological* idealisms, here set aside, according to which ‘one makes contact only with ideas, or at any rate psychical’ objects. ‘The category ... introduces confusion since this epistemological alternative would include philosophers who in their metaphysical positions are realists, dualists, materialists or skeptics’ (Reese p.244). Contemporary English dictionaries not only perpetrate the confusion, running together epistemological and metaphysical idealism, but also enforce a strongly reductionistic version of metaphysical idealism, for instance that the world or the objects of external perception or both “consist in themselves as ideas” (cf. Oxford English, Concise English). But evidently it is one thing to assign ideas or ideal objects various crucial roles, quite another to make such a crude identification.

In particular, the false all-or-nothing dictotomy, that ideas have a total role or none in determining “how external things are”, excludes the more appealing wide intermediate ground where ideas or ideals have a (major) role in *shaping* things, in fashioning structure, or in selection. With such crude reductions as became fashionable with the demise of idealism early this century, many idealist or idealist-leaning positions escape classification, and now go substantially unrepresented. It is time to restore or refurbish some of these abandoned edifices; they are part of the philosophic heritage.

universe is such that those characteristics which are “highest” and most valuable *must* either be manifested eternally or *must* be manifested in greater and greater intensity and in wider and wider extent as time goes on’. As Broad goes on to ‘show ... [such] idealism is not incompatible with materialism as such’ (p.654). These examples serve to indicate the unsatisfactory (to hopeless) state of terminology and classification.

There is, of course, much more to historic idealism than the present core concern: idea or ideal penetration. Idealisms in both of the interlinked Platonic and Hegelian movements, for example, are much given to judgements about what has value and about what is real. For example, the Absolute or the upper tier of Ideals contains the highest values, with the Good if not uppermost near the top and vying for that top position with God or the One. These objects, moreover, are both more real and more rational (the notions are sometimes identified, e.g. for essentially political reasons) than objects further down the hierarchy of Being. It is no great logical feat to avoid these dubious, and unenforceable, evaluations; we can presently leave such idealist fabrications quite alone (out in lonely *Aussersein*, with the statue to Ozymandias, king of kings). The immediate business is the viability of the core of idealism.

2. Endemic misrepresentation: refutation of 'The refutation of idealism'

Attacks on idealism that are now routinely taken to succeed almost invariably succeed either by misrepresentation of idealism, as something it is not, or else through representation as idealism by what is only a strand of idealism, for instance by extreme forms. Idealism does not mean, as the philosopher thrown out on the British street thinks, just that nothing exists outside certain perceiving subjects, or that things are created or composed, more or less at whim, out of ideas (as if they were immaterial bricks). Rather it implies that a significant part of every object is shaped by categorization and conceptualisation, 'by the forms of perception and understanding', by the elements of worldification. 'We know the object as transformed into idea; what it is before being so transformed we cannot know' (Durrant on Kant p.207⁹). The first clause we can accept easily enough, the second we need not. It is not that there is *no* description (representation, etc.), but *many*. (Herein lies a central difference between idealism and pluralism: *none* vs *many*. Realism typically tries to fix the number at *one*.)

The British way of "refuting idealism", of which Moore's effort is fairly representative, may be caricatured as follows:- Conflate all idealism with some more outlandish kind of idealism, such as an unlikely version of subjective idealism, and then refute that. Such misrepresentation has of course not passed unnoticed, at least not in Scotland. Kemp Smith argued that there was no necessary connection between idealism and subjectivism; subjectivism lends itself as much to positivistic purposes such as those of Mach or the Vienna as to the purposes of someone like or at Berkeley. What an idealist has to show, Kemp Smith pointed out, is not that reality is mind-dependent, but that it incorporates 'spiritual values' or the like, and that these operate indeed on a 'cosmic scale'.

⁹ Later Durrant lapses completely: 'Croce is an idealist ... All reality is [*shaped by*] idea; we do nothing except in the form it takes in our sensation and our thoughts. Hence[!] all philosophy is reducible to logic; and truth is a perfect relationship in our ideas'.

'The importance of ... Moore's classical ... essay to the Realist movement can scarcely be overestimated, even if Moore, ever his severest critic, was to write [in his Preface, 1922] that "it now appears to me very confused, as well as to embody a great many downright mistakes" ...' (Passmore pp.209-210)¹⁰ Unfortunately, for straightening up the historical record, Moore does not say *what* mistakes. But almost from the outset, Moore proceeds to confuse idealism with a form of subjective idealism. Granted, he sets out from what is more comprehensive, from what he takes to be a central thesis of modern idealism, that the universe is spiritual (interestingly reexpressed by Passmore, as later by Moore, as 'Reality is spiritual'). But even this he proceeds to construe, perversely, and against a significant current in the long history of idealism, in a distributive fashion, not collectively. In particular, a spiritual universe does *not* imply, contrary to Moore's phenomenalistic construal, that *all* quite ordinary material objects, such as chairs and tables, are thereby spiritual. That is a fallacy of analysis, so to say: that properties of wholes distribute onto their (individual) parts. Similarly Moore's refutation of idealism - which he rapidly transforms into a refutation of all *arguments* to idealism, not of idealism itself (p.3) - turns crucially upon the assumption that all idealism is, underneath all the claptrap, subjective, it all depends argumentatively upon the Berkeleyan premiss, *esse est percipi*.

More specifically, Moore's "refutation of idealism" becomes a "refutation of arguments to idealism", which takes the following form:-

Idealism (*modern* idealism, he sometimes says) includes, as an essential part ('a necessary and essential step'), an argument which circuits essentially through the premiss

a. Esse est percipi (to exist is to be perceived),
to the characteristic theme,

b. Esse est percipere (to exist is to perceive),
whence the idealist thesis that the universe is spiritual (at least to the extent of being sentient) is inferred. But, Moore contends, the essential premiss, though multiply ambiguous is false, perhaps however it is understood, but certainly in its philosophically important interpretation (upon which Moore proceeds to concentrate). Whence idealism as involving such an argument falls.

¹⁰ Likewise the importance of Moore's essays to the development of analytic philosophy can scarcely be overestimated. Moore, more than anyone else, set the style, the fashions and approaches of analytic philosophy. Disposing of the more prominent of these essays, such as that against idealism, is thus a critical part of properly relegating analytic philosophy, and thereby mainstream Anglo-American philosophy, to a diminished status. Passmore's one sentence reveals, by the way, quite a bit about the "progress" of philosophy.

Moore tortuous case against the supposed central assumption, *esse est percipi*, need not detain us.¹¹ For there are many kinds of arguments to idealism which do not transit through the central assumption, as will soon appear. It is worth observing in passing however, that Moore's case involves several moves, very typical of his later analytic procedure, which are decidedly problematic. These include illicit importation of an ontological assumption to convert *to exist* (or *to be*) into *to be* ϕ for some simple property ϕ , e.g. yellow. Thus formula a above is converted into the *different* representative connection of *being green* and *being perceived to be green* or, by a yet further shuffle, *being a sensation of green*. Plainly, the resulting elements are different; but their equation does not express the original formula. Moore tries to undermine the original formula by an early application of the paradox of analysis:- If the formula is a mere identity, not in need of proof, it cannot be informative, in the way idealists have supposed. If, however, it is not a mere identity but informative, a case of one component following from the other, it requires an argument, which they have not supplied. But of course identities can be informative, especially false ones, such as the alleged central assumption.

The crucial point - that several main arguments of idealism, whatever their merit, do not circuit through the central assumption - is readily supported. It is enough to consider the variety of arguments to a major spiritual influence within the universe - to the One, the Absolute, God, The variety of these arguments has in face recently increased, with new arguments, such as those from the fine-tuning of the universe, added to the older stock of design and organisation, ontological and cosmological arguments. It is not just the arguments to absolute idealisms that can, and generally do, avoid Moore's central assumption' so do those to the extravagant Gaia hypothesis and its equivalent for the universe, which are primarily arguments from stability and design, organisation and complexity. So even do those for panpsychism, which it may at first look as if Moore caught in his net. The assumption is at best a corollary to cruder forms of panpsychism, which can be reached by quite different arguments (for example,

¹¹ While Moore's tortuous case undoubtedly retains some interest, it fails to make any direct examination of main arguments for *esse est percipi*. For example, Moore does not critically assess the argument on which Berkeley rashly said he was prepared to hang everything (see Nagel, J. p.93, where a way to avert the argument is indicated). The argument for what is taken to be the controversial half of *x* exists iff *x* is perceived (for *x* any suitable noncognitive object), begins by inviting us to form the idea of an unperceived object (notice the ontological assumptions made in the argument, both here in equating object with entity and in the omitted half of the argument). But, it is claimed, such an idea is impossible, because as soon as we try to think of an unperceived object, such as a tree, we find that all we can do is to invoke a perceptual image of a tree and that is not unperceived. First, the argument conflates thinking-of with perceiving; not all thinking of and about is mediated by perceptual images; and it is quite easy, by no means impossible, to think of or describe a tree no creature is perceiving. Secondly, it conflates perceptual imagination as means of thinking-of with perceptual experience as part of such thinking-of. In particular, even if a creature did use (say) a visual image in thinking of a tree that does not imply that it was thinking of a visual impression of that tree, or, further, that the tree was thereby perceived.

the type of argument discussed in Nagel 79 p.182 ff., according to which any matter organised with sufficient complexity can compose an organism and exhibit requisite features).

Not only do such arguments not circuit through the central assumption, but further the central assumption was not held by prominent idealists, outside the narrow circle of phenomenism. In particular, Hegel was not committed to, and would not have asserted that, *esse est percipi*. For neither of his distinct categories, of Being and Existence, does such a prescription hold.

Even subjective idealism is rarely or never *purely* subjective idealism, confined to a single subject or class of subjects such as humans or persons. Almost always, as in Berkeley and Rescher, something else, such as God or some hypothetical superhuman or active agency, is in the background, to afford some permanence and stability, and especially resistance against subjective manipulation of the way “things are”. Arguments against idealism on the basis that we should be able to act (e.g. experiment) so as to effect all sorts of (scientific) results that we in fact cannot, simply by willing that things should be so, are thus doubly defective: they pull the human independent backdrop away from idealism, and they pretend, in good British style, that all idealism is narrowly, and chauvinistically subjective (whether individually or group defined).¹² Weaker, more conceptually oriented, idealisms avoid such narrowness; they can escape familiar chauvinism, and even achieve compatibility with types of realism.

Idealism as broadly characterised is perfectly compatible with realism; all it may assert is that whatever real world realism discerns is suitably idea-penetrated. Even as more narrowly characterised, idealism wears, or is given, the appearance of compatibility; it does not exclude the adoption - perhaps *under its own redefined terms* - of the distinctive realist thesis that there is a real world out there external to us ideas-havers. Even subjective idealism, phenomenism, can espouse such “realism”: that “the real world” is a construction of group ideas, not answering to any finite idea-haver. Given idealism can so slide realist terms around, and redefine them idealistically, there is something of a problem in reformulating a real realism, realism idealism cannot co-opt (as Nagel tries to explain, e.g. in 86 p.101).

There are two main ways to void this easy compatibility, exploited by (self-styled) idealists from Berkeley through Rescher. One way is to tighten up realism, to stop excessive idea-penetration; the other, more satisfactory way pursued here, draws out a crucial feature of damaging sorts of idealism. That feature is, roughly, that there is nothing, no truth, no

¹² Priest has developed such an argument in lecture notes, building on Bhaskar, chapter 1. Such an argument does tell against a naive idealism, as it does against unsophisticated relativisms and conventionalisms which make too much a matter of mere social negotiation.

existence, beyond the reach of ideas: ideas interfere with, perhaps even dominate; all reality. A weak explication of the feature will suffice for the argument to be advanced; it will serve to distinguish *restrictive* idealism. The restrictive idealist idea is that, even though some truths are perforce not ascertained because of limitations of time, resources, or the like, they are ascertainable; whatever is true is duly ascertainable.

The characterisation is sometimes equivalently put in terms of concepts rather than truths, as the theme that there are no unascertainable concepts (Nagel p.92). The formulations are roughly equivalent, because the ascertainability (or whatever) of concepts is tantamount to that of the distinctive truths concerning them. The present argument will focus on the truth presentation of restrictive idealism rather than the concept presentation, because the logical resources involved in its refutation are more meagre. But evidently enough, refutation of the truth formulation serves to refute a corresponding concept formulation.

3. A refutation of restrictive idealism, and thereby of conceptual idealism, corresponding "realisms", and much more.

For definiteness let us work with one of Rescher's fullest statements of his idealism; conveniently the statement is also virtually the weakest of Rescher's several nonequivalent formulations of his conceptual idealism. As the symbolism to be deployed admits of variant interpretations, such definiteness involves no loss of generality. The full statement of this weak but restrictive idealism runs as follows:

For something to be a fact it is necessary that it be knowable by ...

(5) Some physically realisable (though not necessarily actual) type of intelligent being - creatures conceivably endowed with cognitive resources far beyond our feeble human powers (p.152).

Some of the vagueness of this formulation is removed by looking at what Rescher intends to contrast his idealism with; the surrounding alternatives in his list are as follows:

- (3) Us humans (at large and in the long run).
- (4) Some actual species of intelligent creatures.
- :
- (6) An omniscient being (i.e. God).

Nagel takes the idealism he is combating to amount to that given by (3) (see p.91 top); thus the arguments he tries to assemble against idealism hardly succeed against Rescher's weak version, (5). What sets (5) off from its surrounds? There are no restrictions on God's means or methods, by contrast with a finite set of finite information-acquirers. The latter finite group can be concentrated, by familiar logical means, in a single knower, *godelet* say. Because of finitary

(or like) limitations, godelet is not omniscient, by contrast with God. That is, where K is a functor representing what godelet (or its group) knows:

$$(*) \quad p \supset K p$$

i.e. what is so rejected is that every fact or truth is so known. By contrast for God, $p \supset K_G p$; God is omniscient. But though godelet (or its group) suffers some epistemic limitations, and doesn't quite collapse knowledge to truth, it comes close. All truths are knowable by godelet (or its group), as a matter of necessity, by (5) above - given only that truths imply or match facts (as a satisfactory correspondence theory of truth assures). In fact the argument to be offered will work equally well with facts, using Tp to represent "that p is a fact", in place p simpliciter. Now a statement is knowable iff it is able to be known, i.e. p is knowable iff $\Diamond Kp$ for a suitable modal functor $\Diamond$ reflecting such ability or capacity. So the thesis of restrictive idealism, put in Rescher's form, is $(p) (Tp \rightarrow \Diamond Kp)$, with the strict symbol $\rightarrow$ symbolizing necessitation. This form implies

$$RI. \quad p \supset \Diamond Kp ,$$

which is intended to say that whatever is true or a fact is appropriately knowable, for instance in Rescher's fullest form, able ($\Diamond$) to be known, by some physically realisable ... (i.e. as per (5)).

Consider now any proposition which is true but not known (by godelet's group), i.e. $q \ \& \ \sim Kq$, r for short. By supposition, this is true, i.e. $q \ \& \ \sim Kq$; but, it can be shown, it is not knowable, i.e. $\sim \Diamond K(q \ \& \ \sim Kq)$. Such a complex proposition r (i.e. $q \ \& \ \sim Kq$) refutes RI, as $r \ \& \ \sim \Diamond Kr$. The details can be filled out, and the argument run quite generally, for example along these lines.

The argument refuting restrictive idealism is given, for convenience, in the form of a *reductio*. (However, the argument can be recast in constructive form: see NL.) RI is assumed; it is then shown, what is impossible for nonomniscients, that $(*)$ holds generally. So, by *reductio*, RI fails. The *reductio* runs as follows:-

1. $K \sim Kp \rightarrow \sim Kp$, because A1. $KB \rightarrow B$, what ever is known is true.
2. $Kp \ \& \ K \sim Kp \rightarrow Kp \ \& \ \sim Kp$, by 1 and Composition.
3. $\sim \Diamond (Kp \ \& \ \sim Kp) \supset \sim \Diamond (Kp \ \& \ K \sim Kp)$, from 2, because
A3. $A \rightarrow B / \sim \Diamond B \supset \sim \Diamond A$.
4. $\sim \Diamond (Kp \ \& \ \sim Kp)$, because $\sim \Diamond (A \ \& \ \sim A)$
5. $\sim \Diamond (Kp \ \& \ K \sim Kp)$, by 3 and 4.
6. $K(p \ \& \ \sim Kp) \rightarrow Kp \ \& \ K \sim Kp$, because A2. $K(B \ \& \ C) \rightarrow KB \ \& \ KC$
7. $\sim \Diamond (Kp \ \& \ K \sim Kp) \supset \sim \Diamond K(p \ \& \ \sim Kp)$, by A3.
8. $\sim \Diamond K(p \ \& \ \sim Kp)$ by 5 and 8.
9. $\sim (p \ \& \ \sim Kp)$, by 8 and RI.

But 9 is none other than the rejected $(*)$, $p \supset Kp$.

The argument deploys a decidedly minimal amount of modal logic, in the shape of schemes A1-A3. These comprise two uncontroversial schemes for knowledge, and one rule for the able-functor. (Note that it is not supposed that strict implication, or entailment, $\Rightarrow$, is defined in terms of $\Diamond$; $\Diamond$ is an independent, perhaps nonlogical functor.) The argument refutes Rescher definitively. A less prolific thinker might be able to escape disaster by repudiating some one of the undemanding logical themes used. But Rescher has applied and endorsed a similar argument in his recent enterprise on the limits of science (p.150), and is evidently committed to all the logical themes involved.¹³

Since the argument refutes restrictive idealism in Rescher's form (5), it also refutes it in the stronger forms such as in forms (4) and (3), that Nagel is trying to combat. The argument also admits of adaption to demolish other versions of idealism which try to render *truth, reality, or existence answerable epistemically to limited cognitive actors and their resources*. To consider variations, in the first place, K can be replaced by an epistemic functor which conforms to A1 (or just 1 itself) and A2, i.e. which is a success or veridical functor and which simplifies (or finitely distributes). Important epistemic functors favoured by idealists, such as

¹³ According to Rescher, given 'relatively unproblematic', 'we must concede that some truths are unknowable' (p.150). To be sure, the argument can, like all others, be evaded. There are no arguments without assumptions, such as that so-and-so means such-and-such, and continues to do so this year at last. Rescher *could* claim, for instance, that the logical principles, A1-A3, which held in the previous "Limits of Science" argument fail in the "Anti Restrictive Idealism" argument because they involve a different wider set of subjects, and so perhaps different concepts. But this appears a desperate expedient; no evidence of conceptual change undercutting the principles is adduced, or is in sight.

Others have however taken exception to the principles deployed in the "Limits" argument. Perhaps surprisingly, A2 has taken the brunt of the criticism. For instance, Zemach has rejected A2, but on grounds which, as Smith points out, do not in fact counter A2 but only a different principle not at issue. And no doubt in a classical setting A2 *is* problematic. For in a classical model setting, A2 yields such implausible principles as $A \vdash B / KA \supset KB$, and thus $KA \supset KB$ where B is any necessary truth, and so on. These arguments depend upon intersubstitutivity of strict equivalents (e.g. $A \vdash B$ yields $A \& B \leftrightarrow A$, so $KA \equiv K(A \& B)$, but $K(A \& B) \vdash KB$ by A2). Contrary to classical perceptions, such intersubstitutivity surely fails in epistemic settings.

Rescher does suggest another escape, far above any such detailed examination of premisses. It is an escape, reeking of instrumentalism, that would, if it worked demolish all such logical argumentation:- 'No doubt this sort of argumentation for the incompleteness of knowledge is too abstract and "general principlly" to carry much conviction in itself. But it does provide some suggestive stage setting for the more concrete rationale of the inperfectibility of science that has concerned us here' (p.150). No doubt this sort of windy argumentation should carry little or no conviction, and not because it is itself too abstract.

Moreover since the argumentation does succeed, for all its formalism, in demonstrating limits to knowledge, it thereby establishes limits to science, since (correct) science is properly contained in knowledge. Hence one of Rescher's main theses on the limits of science, that there are no limits (p.4, p.218), appears to be straightforwardly refuted. That is just one of many things apparently seriously wrong with his 84 text, which is already outdated, as it takes no due account of important advances on the edge of science (such as those discussed in Davies 88).

recognition and perception, meet these conditions. Secondly, parameter p can be covered by any alethic functor F which meets material versions of Tarski's adequacy biconditional, $Fp \equiv p$ (with any quotation absorbed in F), or indeed certain weakenings thereof. Included, apparently, are not only 'It is true that' and 'That ... is a fact', but 'It is real that'. The argument can accordingly be adapted to refute a propositional version of another of Rescher's formulations of conceptual idealism, namely 'To be real is to be recognisable as such by a (possible) mind - to be accessible to a (possible) mind' (p.150), given that the class of minds countenanced is duly limited. For limited minds, *there is unrecognisable reality*.

To supply, as expected, a subject version of the reality formulation, linking reality with subject existence, it is necessary to exceed propositional resources. Rather than do this, let us look at what is similar, the more famous idealist principle (which Rescher also endorses, p.152, and indeed equates with the previous formulation): *to be is to be perceivable*. This pronouncement implies that, for any x , if x exists then its existence is capable of being perceived; that is, in sufficiently familiar symbolism:

$$A0' \quad xE \supset \Diamond P x E \quad ,$$

where functor P , 'it is perceived that' or 'Godelet (and group) perceive that' now stands in for K , and statemental generality (of p) is replaced by subject generality (of x). (A different representation with an intensional predicate P' , read '... is perceived' could be used, but it is less convenient, and in the intended ontically-loaded context, $xP' \equiv P x E$.) Now, by virtue of finitary or like limitations (with God out of the quad), it is sometimes false that

$$(*) \quad xE \supset P x E \quad ,$$

i.e. some entities are not perceived; *to be is to be perceived* is rejected. But the remaining conditions for the argument, with ' p ' replaced throughout by ' xE ', are met. For perception functor P is a success functor which simplifies. Hence, the famous idealist principle is rejected. *There are unperceivable existents*, logically generated from unperceived entities. What this reveals, furthermore, is that an idealist cannot simply *hypothesize* some limited creature which discerns each arbitrary existent of whatever given sort (e.g. each causal process). But this is what Rescher's only suggestion of an argument for his residual idealism amounts to: "to be real is to be causally active - to be a part of the world's causal commerce". And since we can always hypothesize a creature that detects a given sort of causal process, we have not hesitated to equate reality with experientiability in principle' (p.153). Even before logical demolition is begun, observe that this is not obvious, especially should the process destroy the hypothesized experiencer. Consider, for instance, disappearing into a black hole or vacuum, or experiencing death directly. No amount of sliding about from experientiable to detectable to discernible, or from reality to existence to physical existence (in all of which and other subterfuges Rescher engages) will save appearances: such hypothesizing too has its limitations.

The argument to unperceivable existents can be recast as an argument to *unascertainable concepts*, thus vindicating Nagel's main but unsupported contention against restrictive idealism. For example, A0' can be re-presented (perhaps in too simplistic a form) thus: $x \supset \Diamond A \times C$, i.e. where x is a concept that it is (conceptually) ascertainable. The refuting argument then goes through, given such expected connections as that what is ascertained is so. A similar argument succeeds against Rescher's earlier explicitly conceptual formulations of conceptual idealism, for example as characterised thus: 'the concepts we standardly employ in constituting our view of reality - even extramental, material reality - involve an essential (though generally tacit) reference to minds and their capabilities' (8. p.4). Analogous arguments also hit a variety of still important forms of verificationism, anti-realism and internal realism, for instance, such forms as that whatever is true is duly answerable to epistemic agents, that correctness is a matter of what is in the long run rationally acceptable, and the like (as NL already sketchily explains; it is not exactly news).

Rational acceptability, warranted assertability and like forms do not escape demolition by virtue of the fact that the functors involved are not veridical and that A1 accordingly fails. For observe that only a considerably weakened "deontic" version of principle A1 is actually required, namely $K \sim Kp \rightarrow \sim Kp$ (corresponding to modal form $\Box A \rightarrow \Diamond \Box A$). Surely if it is rationally conceded that it is not rationally conceded that something or other, e.g. p , then it is *not* rationally conceded that p (where "conceded" stand in for what the functor is that "able" converts to "acceptable").

For an instructive example of how the less demanding argument can proceed against a *prima facie* rather different position, consider Ellis's internal realism. According to Ellis, *what is true is what is epistemically right* for us humans to *rationally believe*. No doubt embedded in this analysis is some epistemic acceptability story, because what is epistemically right is said to be what is in the end noncoercively conceded. But there is no need to dig that deep; considerably less exposure of the underlying form is required. It suffices to look at the form:

It is true that p iff it is epistemically right for us that p is rationally believed, i.e. in symbols $Tp \equiv \Diamond Kp$,

where $\Diamond$ *now* represents chauvinistic epistemic rightness and K corresponding rational belief. Then the argument adds to the evident good reasons for rejecting both halves of Ellis's truth biconditional an apparently decisive refutation. For rational belief, K here, conforms to the requirements A2. $K(A \& B) \rightarrow KA \& KB$ and A1-. $K \sim KA \rightarrow \sim KA$, while (like other deontic notions) rightness, $\Diamond$ here, satisfies the transmission principle A3. $A \rightarrow B / \sim \Diamond B \supset \sim \Diamond A$, as well as guaranteeing such classical features as $\sim \Diamond(A \& \sim A)$. But rational belief does not itself supply truth, i.e. $Tp \supset Kp$ sometimes fails. So the refuting argument goes through. Internal

realism suffers a similar fate to conceptual idealism. (So also does Strawson's qualified Kantianism, discussed in Nagel 86 p.100; so do other similar positions.)

Restrictive idealism is not as restrictive as narrower subjectivism idealisms (though implied by them). It need not involve reductionism, for instance some sort of ideational elimination of key "realist" ideals such as subject-independent truth and existence (witness Rescher). But restrictive idealism is nonetheless restrictive. It is ahistorical to restrict idealism to restrictive idealism in the fashion now favoured in North America; this is to make part of Moore's mistake over again. Thus *a refutation of restrictive idealism is not a refutation of idealism* – only of what idealism has generally been taken to imply in contemporary philosophy.

4. Messages from idealism: its persistent point, and continuing advantages, as in accounting for organisational features of nature.

The main message is simple: *Ideas are essential*, essential for most of the accounts (of the local world, its ways and values) and for most of the theories philosophy aims to supply. But defective assumptions, often gross ones, quickly enter to obscure this simple message. Naturally, these ideas, ideals, concepts, and the like, do not have to be mentalistic – though there is constant empiricist pressure to reconstrue them thus.¹⁴ They can be conceptual, independent of human and other minds, though accessible in principle to the best of them (as in Plato, Frege, Popper, and other elitist philosophies). Better still they can just be objects; neither material, nor mental, nor conceptual. Nor do they have to be existent to play their main roles – though in the present ethos there is constant ontological pressure to reconstrue them thus.

Theory is essential to planned and organised lifestyles and social arrangements, now largely inescapable. Nor is there any easy escape from ideas and theory, for instance into pure practice (this too is an ideal). But theory, like understanding, cannot proceed fully without ideas. Advanced theory is characteristically a matter of idealisation through and through. But all this does not reduce somehow to that idea of another theory, matter. There is, there is bound to be, a lot left out in any such reductionism, material, mental or other. The main message concerning ideas thus delivers in turn various subsidiary and associated messages, beginning with the unviability of idea-reductions.

¹⁴ The alternatives to realism are generally very casually made out these days, the grand defective assumptions being heavily applied. So idealism invariably winds up in the mind-produced or function-of-mind basket.

Such idealism is not just practically unavoidable. Idealism offers major advantages that its main rivals do not. Perhaps less important, though of major historical moment, it appears to offer a bulwark to scepticism, ever a spectre for realism. However *such* sceptic-proofing is both unnecessary, because it can be accomplished without idealism,¹⁵ and inadequate, as the proofing relies excessively on flawed elements of restrictive or reductive idealism. More important, idealism has a crucial role in explaining phenomena that realism leaves unexplained or looking entirely fortuitous. Examples include the connection of things, their temporal ordering, their lawlike interconnections, the causal linkages of radically different kinds of things (and the sorts of phenomena that Kant tried to explain, in idealistic fashion, in answering Hume). More generally, they include apparent *organisational features of nature*: its coherence, its uniformity, its comparative simplicity, its mathematizability, its intelligibility. It is worth glancing at some of these features, features rationalist philosophers were exercised about, but features contemporary philosophers who even notice the problems typically now assign to a deliberately-neglected too-hard basket.¹⁶

There are four main broad ways to try to explain the organisational features of the universe: chance, agency by superhumans, or through human interaction and negotiation, and selection (on these ways, see further CS). Scientific realism typically deprives itself of all but the first. Organisational features, such as the applicability of available mathematics, become miraculous (thus e.g. Wigner: 'the miracle of the appropriateness of the language of mathematics for the formulation of laws of physics is a wonderful gift which we neither understand nor deserve', quoted in Schlesinger p.xv). Alternatively, the features are dismissed as brute facts (rather remarkable brutes), but remain nonetheless in the broad area of unexplained chance. Because it has *no* plausible story to account for various significant organisational features, scientific realism tries fairly systematically to downgrade or dismiss questions concerning them. With problems concern how to connect the items that are supposed

¹⁵ The reasons are given, in brief (*too* briefly) in LT.

¹⁶ Among the few recent philosophers who have noticed the problem is Schlesinger, who in a most misleadingly entitled book, *The Intelligibility of Nature*, says early on that he will 'refrain from advancing any conjectures concerning the ways one might resolve the mystery', *that* mystery of intelligibility and comprehensibility (p.xvii)! Although Schlesinger files the problem in the too-hard basket, he does indicate the direction in which he thinks a resolution lies. There are (he assumes, there *exist*) significant features in the world, inherent in nature, which 'facilitate scientific progress and promote a smoother unravelling of nature's secrets' (p.xvii). The immediate task Schlesinger supposes, is finding *what* are such features. Such features may however be substantially illusory; hidden features which only realism, such as Schlesinger presupposes, forces us into postulating. Without realism there is no such *necessary* task, as there is no hidden structure puzzle to unravel in quantum theory. There is only the very different matter of explaining *how* organisational features are incorporated into world structure.

to do the explaining with the features to be explained. Superagencies, such as gods, run into serious difficulties on this sort of score.

Of course realism is not totally deprived of ways to explain the success of science (what success it has had). It can offer explanations at the level of *theory* ; but it cannot push those explanations down to the level of *nature* , which is independently fixed. For instance, it can *try* to explain selection of theories in a general evolutionary way, as those best fitted to survive; but it cannot tamper with the world they answer to. More important, it can explain the way in which research can break theoretical problems up, analytically, into small issues, which hopefully can be solved for the most part in a piecemeal successive fashion. However, without further unavailable input, this does not serve to explain why the “secrets of nature” are capable of being explained serially, why complexity of the world does not exclude such a research strategy. Brute facts or miracles intervene again.

For idealism, by contrast, the explanatory option remains open of arguing that organisational features can, to a significant though no doubt still limited extent, be *fashioned* into a world (by selection of a right design) or, less plausibly, be *imposed* on “the” world (the selected world). Briefly the sorts of ways open to idealism are these:-

* Those of *agency* and *quasi-agency* , where in archetypal form some super-agent organises or rigs things appropriately. Plato's demiurge is one archetype of such an agency way to organisational features. But as the Gaia example of the stability of the Earth's atmosphere reveals, the organisation does not need to be by *intelligible* agency, which after all induces a certain circularity in trying to explain intelligibility, or by *active* agency. Quasi-agency, such as Gaia perhaps exhibits, is sometimes enough (consider Lovelock's daffodil example, where regulation is explained essentially along system-theory feedback lines). “Invisible hand” accounts belong to his quasi-agency sort; organisation *without* intelligible agency, but as if agency operated.

** Where gods and super-agents may fail, or intellectually die out, humans are still available. Sometimes order, especially classificatory order, can be achieved by social negotiation (as cognitive sociology, though tracking along pretty inadequate conventionalistic and relativistic routes, has copiously illustrated). The resulting order can then be adopted or imposed. In such cases human agency may replace super-agency - but in the form of imposition or projection, instead of active intervention. While the ways of agency are, to a limited extent, open to neo-Platonism, not all of the next idealistic ways are.

*** Those of *selection*. Several sorts of selection may be involved: local or global, intraworld or interworld. For example, a local intraworld type is terrestrial “natural” selection of natural species. Similarly modelled is a more sweeping natural selection, which helps account for many otherwise puzzling natural coincidences, e.g. the “fine tuning” of the universe and its

parts (see CS). Rather differently, there is "ideational" selection, whereby "the scientific" world is itself selected: its classifications, properties and concepts gradually so determined and adjusted as to bring more of the whole into simpler intelligible compass.

In a nutshell, "the" world is shaped and selected so as to supply sought organisational features, so far as resistance of the whole permits and sometimes despite it. Such ideational selection has several parts. It includes a subsidiary selection of well-behaved ideal objects, nonexistents, which enable the technical theoretical wheels to turn much more easily (see JB for basic details). It includes a selection of structure, in particular holistic structure. For instance, selection of a suitable world model, such as one where actual words have multiple futures branching from single past trunks, assists substantially in philosophical explanation, and elucidation of a range of otherwise puzzling features, ranging from quantum indeterminacy and wave-particle collapse, to the combinations of freedom and determinacy agents making choices encounter.¹⁷ While there are no absolute open-ended guarantees, here as mostly elsewhere, it is often feasible enough to select an appropriate model which delivers the "right" properties. Selection, when carefully done and time-tested, has the effect of imposing a *structure* on the chosen world (and an appropriate structure in each relevant world), which materially assists in delivering sought properties. Selection is typically an evolving social affair. Over time, cultures have progressively fabricated the fine-tuned structures which do the culturally right types of things, and deliver intended results in normal circumstances.

Leibniz long ago senses the advantages of selection in ensuring organisational features, but coupled it with a super-agency account. God chose the actual world as that which optimized the appropriate combination of *lawfulness*, which included coherence, cohesiveness, orderliness, and simplicity of hypotheses, with *variety*, which comprised comprehensiveness, content, and richness and diversity of phenomena. Typically naturalists will transfer choice from God down to earth, pretty much in accord with the standard Enlightenment recipe for replacement of super-agency by human activity; for instance, if science is seen as primarily a terrestrial social product, selection is driven down from super-agency to mainstream cultural evolution. Two other important adjustments should also be made to such super-agency selection stories. Firstly, whereas God's choice was total and final, cultural selection will be partial (so the world selected will remain indeterminate in many respects) and on-going (thus a stage-by-stage representation, as in CT, is appropriate). Secondly, to allow properly for *choice*,

¹⁷ McCall, carried away by the prospect of some philosophic success, tries to show how such a world model solves many major philosophical problems. At the same time he tries to make out that the model invoked is a weird one, inviting immediate disbelief. On the contrary, outside philosophy it is at root a fairly commonplace one. Many variants upon the model would serve a similar purpose, including a many-worlds variant.

and also for evident suboptimality and muddling along, satisizing will supplant maximizing; good enough choices can serve to explain emergence of organisational features. Of course a smart naturalism will deploy not just selection, but all the ways discerned – except anti-naturalistic means such as super-agency - in advantageous combination. The ways are not so sharply separated. A selection of classificatory structures that persist, for example, is bound to be a socially negotiated matter; similarly a selection of ideal objects. Let us take a one-sided, idealist-biassed look at how some of these organisational features are to be explained.

- **Classification and bases of regularity**

Such matters as classificatory schemes, often enough decidedly artificial or conventional are in many cases easily accounted for; thus for instance highly artificial boundaries and classifications of present-day political regions and states, which can be historically explained. The gradual change from former European classification of plants in terms of their usefulness to local humans, to contemporary botanical classification, can be explained in terms of the comprehensiveness and theoretical grasp offered thereby. There are many informative examples now available of socially-negotiated (or elite-negotiated) arrangements, from international laws and treaty and convention commitments, to scientific nomenclature and classification uniformities and standards. Such conventions already determine a certain range of “fact”. Rather less conspicuous, much more insidious, is the often inextricably entangled mix of fact and theory hit upon by leading elite practitioners in various fields, such as judges and pace-setting scientists, and adopted on their enlightened authority.

More difficult to explain is the apparent prevalence of regularity, lawlikeness and the like, especially in nature. It is easier to appreciate how lawlikeness arose in law, where it is attained by legislation, interpretation and decision; so it is worth remembering that the notion of law was transferred from civic human-contrived law, through natural law (made by a super-agent and revealed to or found by humans), to scientific law. Even state law is far from unconstrained; natural law is substantially more constrained, by a surrounding corpus of “observational” data, certified experiments, and (lower-level) theory. Within those constraints, which can to some extent be renegotiated, the law is fabricated or legislated, at the tribunals of dominant science. Many strategies render the attainment and passing, or acceptance, of such legislation easier. Firstly, regularities are parasitic on their terms, which are parasitic on engineered classificatory preliminaries. The determination of natural lawlike connections is then partly accounted for by selection of classificatory schemes tooled for that sort of purpose. Less obtrusively, classificatory schemes are amended to fit with received law or theory; for instance, botanical classifications are being gradually adjusted in a way that removes discrepancies with continental drift theory. But that can only be part of a more complex story. Another part of the explanatory jigsaw is this; complex systems will normally exhibit some regularities, which can be improved

upon by smoothing, etc.¹⁸ Yet other important parts of the story include these:- the introduction of suitable ideal objects to help smooth a rough empirical correlation into a invariant lawlike one; the projections of such local connections universally, at bottom by pure assumption, apparent anomalies being written off until they became acutely embarrassing;¹⁹ and so on. Many of the requisite details are sufficiently available and well enough known from accounts of functioning of “normal” science. But such details and devices do not fully account for grander lawlike organisational feature, such as regularity and coherence themselves.

• Coherence and regularity

A major way of shaping matters so that they conform to expected desiderata is through coherence constructions. Lawlike requirements, such as conformity to given regularities, are build in as the coherence construction proceeds (see CT). But the construction eventually fixes truth, and the way of the world. So these lawlike requirements do obtain, ensured through coherence. These constructions also give a clearer impression of how fashioning operates. In significant respects it is like the work of craftspeople portrayed by ancient Greek philosophers. A craftsperson fashions a crafted object, not in an entirely free way by any means, but constrained by the nature of the given materials. So too in coherence constructions, the factual fabric, an extension of socially negotiated “fact”, is fashioned under flexible constraints, of nature.

Through coherence constructions, such as those outlined and developed elsewhere (especially in the companion essay CT), not only are coherence, cohesion and like features assured, but further other prized organisational features can be pulled together and integrated with truth. To this extent, coherence is a crucial part of a full idealistic story; it enables truth to be coupled to a world selected over time with a view to its organisational features. This can be

¹⁸ A rough and ready distinction can be drawn in normal circumstances, where things go on more or less as usual, and abnormal circumstances, where a range of phenomena go haywire, not through disasters or the like, but because things start behaving decidedly queerly. (Strictly some contextual relativisation should be factored in, to allow for the contrast between everyday contexts and those of special science. Within science *s*, normal circumstances amount to conditions for normal *s* science.) Abnormal circumstances are recognisable, though the time of running into them may not be identifiable (so some mistakes may occur at this stage). Standard inductive procedures are reliable in normal circumstances, which is all most of us have encountered. Their reliability comes into question however with the advent of normal circumstances.

¹⁹ Eddington stressed this now familiar claim, in pleasantly exaggerated form, some time ago, in regard to the conservation laws of physics: ‘There is no law of government in the external world tending to preserve unchanged specially created entities which occupy it; but the mind has by diligent search picked out the possible constructs which have this permanence in virtue of this mode of construction, and by giving value to these and by neglecting the rest has imposed a law of conservation of things of value’ (p.217).

achieved because appropriate uniformities and regularities can be incorporated in a construction. For example, suppose “ A_i causes B_i ” is an apparent causal regularity, good for all experienced cases of the connection. Then the regularity can be extended from the experiential evidence to all experiential cases, by incorporating the regularity generally through the coherence construction. Unlike a Kantian imposition of regularity, unqualified success is not guaranteed; cause-effect regularities can subsequently come unstuck under certain unfavourable conditions, whereupon subsequent constructions will require adjustment. There are no absolute guarantees of unvarying and unabdicatable success, because nature still has a, substantially diminished, role to play. But we can much improve our prospects, and increase our range of regularities by appropriate fashioning of coherence constructions. A connected story is to be told for other organisational features of nature, some of which will be considered briefly, *seriatim*:-

- **Applicability of mathematics**

The applicability of such methods is no miracle; nor is it a matter of straight human imposition (in Kantian and perhaps intuitionistic style). There is a large amount of *interaction* however, which calls for more careful explanation. For instance, it is much too quick, as Schlesinger rightly says (p.xv), to simply import, virtually from nowhere, an extra sixth sense, “the mathematical imagination”, which enables humans to perceive a natural world mathematically. That, in any case, presupposes that nature is already appropriately mathematically structured, and smart humans simply “read off” details. It thus begs a major question.

A fuller account has to include the following sorts of details. Mathematicians have very commonly begun work on structures loosely derived from natural experience or through theorizing about nature, and on problems suggested by these structures. Those structures, if appropriately rich (i.e. have interesting mathematical properties, without being so complex as to be intractable given prevailing mathematical methods and skills), are then much further investigated, and so a theory emerges and grows. Not there are various rival accounts that can be offered of these mathematical structures and theories. While an item-theoretic account will be taken for granted (that of JB, p.792ff), and has major advantages, other accounts would serve, though less well archives of such structures and theories are gradually built up. At later stages in the development of sciences, new structures are extracted from apparent data (details of the smoothing and simplification of the data are naturally extremely important here), and, not too surprisingly given the sources of archives, often enough structures like those extracted are found in the archives.

Part of the otherwise puzzling story of conic sections in the history of physics can be accounted for in this way. But it does not explain why so many physically important curves are conic sections (Schlesinger's puzzle, p.xiv). But this can be explained in turn through the force laws that operate on ideal bodies, using mathematics drawn from the archives. Moreover, there are now ways of trying to explain these force laws, for instance by reversion back to a more general geometry.

- **Simplicity and smoothness**

Simplicity too, so far as it can be obtained, is commonly the result of a extended process of selection and shaping; for instance, of discerning appropriate ideal objects with technically tractable properties, of suitably culling properties so that only those that appear to matter remain, of duly adjusting those that remain, and so on. The practice of successful modelling reveals an important part of what is involved.

Further components of simplicity, along with associated features such as smoothness and continuity, can be gained through choice of actual world, in several different ways, most again simply through facorporation by way of coherence constructions. But direct choice also matters, as is shown by a well-known group of problems, severe for forms of realism, concerning unverifiable and unfalsifiable hypotheses. Consider one group of these puzzles, that concerning *de facto* unobservables, such as the rat still gnawing at the cheese in the cupboard when unobserved in any way (direct or indirect); other groups of sceptical puzzles succumb to analogous treatment. Suppose the rat is observed in the cupboard at t_1 and again shortly after at t_3 , but not in the interval, say at t_2 between t_1 and t_3 , while there is no countervailing evidence that the rat moved out of the cupboard during the interval. Idealists who employ coherence constructions will no doubt already have arranged their ideal constructions so that such statements as that the rat is in the cupboard at t_2 is put in the putatively true class. But that is the long way around in ensuring such simplifying features as persistence of unobserved objects. In brief, the actual world is chosen so that complex (and fanciful) hypotheses, about the rat's transmuting out of the cupboard and back or changing into something else like a cat or spanner and back again or simply disappearing into thin air, are excluded. "That's how things generally are" idealists too say, "simple and continuous" - realising however that they've fixed them up, or let them be settled (since it is usually done by default), that way.

Appropriate *principles* of persistence and simplicity - ensuring that medium-size natural objects do not just jump in and out, or out and in, of existence when not observed, that toys don't miraculously acquire the wherewithal and come to life when everyone is asleep, and so on

- can be built into coherence constructions, once they are suitably formulated. Thus, under normal circumstances, formal principles of simplicity can be guaranteed.²⁰

• Intelligibility

It is easy to *exaggerate* the extent to which the (natural) world is intelligible, simple, and so forth, in much the way it is easy to exaggerate access to other minds. No small part of the other minds' "problem" derives from this exaggeration. Similarly, part of the intelligibility problem can be traced to exaggeration. Intelligibility should not be exaggerated; not everything need be, or perhaps is, intelligible. Certainly there is a great deal that remains beyond our grasp, not understood at all, or, very commonly, not comprehended at all well. An important preliminary is then to cut intelligibility problems down, down to a more realistic size. That said, there is still a *lot* to explain. Intelligibility extends surprisingly far; much further than realism can easily account for. On realism intelligibility appears too often as a miracle, a mystery, or a surprising brute fact, lacking decent explanations. At least it appears like this on hard realism. A soft "realism" under which the "facts" are soft can do something to explain intelligibility in the way idealism does. But as it gets softer, perhaps sufficiently soft, it loses its title to "realism" (like "Platonic realism", it becomes a variety of idealism).

Much in the world that is selected has been crafted, over a substantial period so as to deliver intelligibility. The specific fashioning of the facts, of the news, of the world, is typically achieved by way of lower-level organisational features already considered, such as simplicity, lawlikeness, the application of understood mathematical technology, and so forth. For example, the intelligibility of the world is much aided the simplicity of natural laws, gained through the availability of principles like the inverse square forms of force attraction laws. Intelligibility is a *high-level* organisational feature, which is in part supervenient on other lower-level features. But there is also a relational, contextually supplied, side to intelligibility; for the feature also depends upon the reference group (usually taken hereabouts to be smarter humans) who are assumed to be able to grasp whatever is accounted intelligible. Intelligibility can be enhanced, then, not merely by improved world selection, but through influencing the other end of the relationship; that is, by improving, through training and education, the requisite

²⁰ *Can be !* But no one, idealist or other is attempting the requisite detailed work of showing, that it all works satisfactorily; mostly it is just assumed in realist or pragmatist fashion, that it does. Here at least a hearty dose of pragmatism does help: we know it all works out more or less alright in normal circumstances, so the details too must compute out alright.

powers of the select groups that do the grasping and set intelligibility records and turn in superior performances.²¹

5. Item-theoretic idealism, and the apparent extent of biotic and spiritual penetration.

The new form of idealism obliquely advanced is significantly different from the sorts of idealism that have predominated in modern times. It is not restrictive, it does not endeavour to exclude a genuinely external world, or indeed a plurality of them. While it is, like modern idealism, highly intenzional, and antithetical to contemporary extensional reduction programs, the resemblance does not go much further. Item-theoretical idealism is not reductive about intenzionality, seeing such phenomena all as some manifestation of thought or spirit; that idea too rests on (grand) defective assumptions. neither is it reductive about apparent nonexistence, seeing that too as some sort of mental product; instead it is robustly inexistentia, with ideas fitting comfortably into that great category. In ontic respects then, it neutralizes the existentially overloaded traditions of idealism.

Perhaps worse from a traditional idealist perspective than such neutralization is naturalization. At bottom the new idealism is also naturalized; spiritual commitment of some sort is no longer essential. Spiritualization of any sort becomes then an optional extra, not part of a basic idealistic package; it is something to be argued about and for, and bought on its own further merits such as they are. The idea that spiritualisation is essential is based on familiar mistake; a false dichotomy that accompanies the grand defective assumptions. The assumption involved is that what is intensional, not extensional like Newtonian material, must be somehow mental. The central argument built on this defective assumption is simply this: as such intensionality affects many systems that lack minds in any obvious way, so there must be some analogue to mind, spirit say, which these systems have but given a proper explanation of intensionality, such agent-linked elements as spirit are otiose.

As it happens, there are many items, notably ecosystems and environmental complexes, which, while not intelligent or straightforwardly sentient creatures, display self-organisation and (quasi) goal-direction. In particular, the Universe and locally significant systemic parts of it, such as the Earth, exhibit features that typically go with being alive (or agency or even having a mind), such as self-organisation, resilience (when obstructed or damaged), goal-orientation. Even so, as not enough biotic features converge for proper attribution of life, such

²¹ Such intellectual feats may depend on a paradigm shift. For example, understanding the Russell paradox, and its inconsistent workings, really calls for a shift beyond classical bounds to intelligibility.

attribution appears to lack justification. Such cosmic items are, as we shall say instead, adapting an older term, *telic*. Being *telic* does not entail being alive; for there is presently little reason to suppose that such cosmic items breathe, or reproduce in a biological sense, or even are sentient or the like.²² Accordingly, also, being *telic* does not imply any sort of spirituality that goes with being alive. The theme that significant cosmic objects are *telic* does not imply hylozoism, panpsychism or such doctrines. A fallacious Berkeley (*some* to *all*), or parts fallacy, lies behind a main route to panboisism and panpsychism. (There is nothing in fact in *telic* notions that a “dialectical biology” cannot supply: cf. Levins and Lewontin p.100ff.)

Presently we are short on information to leap accident free even to the conclusion that the selected universe is in significant ways self-organising; so far it remains a neat hypothesis. To help clarify the conjecture more appropriate science is needed.²³ But to assert that the universe (or its extension in the absolute) is spiritual, as Hegelians characteristically did, is to imply much more than *telic* attribution would. For it is supposed to mean that the universe is in some sense, conscious, and that it exhibits higher forms of consciousness, including especially intelligence (cf. Moore pp.1-2). It is by virtue of having such features in adequate degree that it is taken that such spiritual objects are valuable, deserve respect, are superior to material or inanimate objects, etc. It is here that objective idealism joins force with neo-Platonism - in value assignments. (Observe how basically chauvinistic these assignments are: cosmic objects gain high marks insofar as they are like superior or excellent humans.)

Item-theoretic idealism can traverse a wide middle route between the human-distorted forests of spiritualism on the one side and the arid wastes of materialism on the other. In present dire ecological circumstances, inclining toward spiritualism (at present a recessive political force) is to incline towards a lesser evil; but there is no reason (discounting politics) to veer from a middle way.

²² Organic images, which do analogically assign some of these biological functions to cosmic wholes, are making a contemporary comeback. The analogies are far-fetched, and inconsistent, e.g. on one picture the atmosphere acts as global lungs, on another terrestrial forests do. The superorganism hypothesis, a forerunner of the Gaia hypothesis in the form Lovelock now favours, was developed by Hutton at the end of the 18thC (see Lovelock 88 p.60).

²³ More such science, disclosing organisation, can *help* explain the (Kantian) possibility of science. Here, as elsewhere, bootstrapping is a bonanza.

ON MAKING A COHERENCE THEORY OF TRUTH TRUE

In the last half century the coherence theory of truth has largely fallen into disuse and disrepute. While there is now some flirting with coherence approaches, as each approved version of the majority position, the correspondence theory, duly founders, and holism gains in fashionability, still coherence has but few committed friends.²⁴ Granted, it has had friends of a sort: most notably Rescher, who has made significant contributions, on which others may profitably build. But Rescher, while advocating what he calls a 'coherence theory' has twisted the theory into what it is not, a modified "self-evidence" theory, and has also warped it into a methodological pragmatism that would have made straight old-timers like Bradley and Blanshard blanch. As well the major virtues of the theory - if only it could be got to work, which unfortunately it can't - have been appreciated by isolated explorers of the wide truth terrain, such as Blackburn (see esp. his pp.237-8). The present exercise supplies *one* way of enabling the theory to work, without undue warping.²⁵ That way does not pretend to be an authentic historical way, only an historically controlled and informed way. For the primary purpose here is not historical explication; it lies rather in the development of coherence theory *beyond* its previous and varied historical settings²⁶, to render it somewhat more adequate and more coherent, and to begin to display some of its further virtues.

²⁴ Among those who do more than mere flirting - in the fashion of such pragmatist-influenced bigger-philosophical-shots as Rorty and Davidson, Lehrer and perhaps Putnam - is Williams; he and Rescher are the only authors cited in Tice and Slaven's research survey as having 'adopted coherentist positions' (p.323). But Williams, while he attempts some slick defence of certain coherence claims (p.99ff.), offers no development of a theory, and, roundly asserts that 'the "coherence theory" to which [his] no-foundations view of knowledge is committed simply in virtue of being a no-foundations view *is trivial*'; it does not 'amount to any more than a mere denial of the claim that knowledge has a foundation' (p.115, p.113, italics added)!

²⁵ The exercise (like that of SC) forms part of a larger project, that of showing that, at early approximation, *all time-tested theories of truth are true*. That truth-theory project comprises, in turn, part of a much grander pluralist program, that of indicating how *all persistent philosophical theories*, no matter how unfashionable from time to time, *are correct*, in a duly liberated framework (see SM).

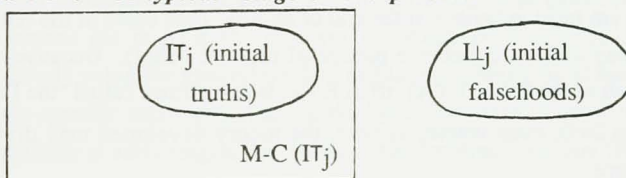
²⁶ Coherence theories were adopted, if never explained in much detail, not only by later idealists but also by some logical positivists and, so it is said, some rationalists (see philosophical encyclopaedias). There never was a single uniform theory, but many variations on some overlapping themes. Not even truth was an agreed-upon agenda item or end product, some insisting, contrary to the theory to be presented, that only certain degrees of truth could be achieved. It does need stressing, however, given the recent Anglo-American proclivity of ahistorically linking idealism with mathematical intuitionism, that traditional coherence theorists did not question traditional laws of thought, such as Excluded Middle, or their analogues such as confinement of the particular quantifier. It would not have occurred to them to impose intuitionistic constructivist requirements or intuitionistic restrictions on choice (e.g. of specific disjuncts from disjunctions, of elements from choice sets, etc.). Nor will the schematic theory to be elaborated confirm to such (unwarranted) intuitionistic strictures

Leading requirements on coherence theories of truth have always been coherence and comprehensiveness; thus, for instance, Bradley: 'Truth is an ideal expression of the Universe, at once coherent and comprehensive' (p.223). These features will be explicated jointly, coherence by way of fitting into an appropriate ideal structure, and comprehensiveness by exhaustiveness or maximality of the structure. The obvious structures are accordingly *maximal coherent systems*; in effect comprehensive coherent structures become maximal coherent systems. Conveniently then, for Blanshard, as for Bradley, 'System is the key term... truth... derive[s] from the relation of a datum to the system of which it is a part' (Reese, p.589; cf. Rescher pp.31-2). Coherence *just is* this fitting together, through requisite relations, into a suitable system, into a whole. There is a third standard requirement beyond coherence and comprehensiveness, namely, *control*, by experience especially (whence Blackburn's useful mnemonic for the requirements of a coherence theory, CCC). The control by experience figures importantly in getting maximal coherence constructions for truth going.

1. Coherence constructions.

The logical strategy is, then, to explicate coherence in terms of fitting together in a (Lindenbaum) maximal-coherent-set construction, of the general type used in (relevant) completeness proofs, as well as elsewhere in metatheory.²⁷ To allow appropriately for revisability, however, a *sequence* of maximal-coherent-system (*m-c*) constructions is envisaged, a typical one of which takes the form indicated by the next diagram.

Diagram 1 : A typical stage in the process



The set $M-C (IT_j)$, abbreviated T_j , is a set, extending the initially given class of truths IT_j , keeping out all initially determined falsehoods L_j , and subject to a further series of constraints, SC_j . These constraints, imposed to ensure that T_j is closed under, and conforms to, prized law-

²⁷ While in many respects the constructions resemble maximal consistent set constructions of many elementary logic texts, in certain crucial respects they differ. Most notably, sets resulting from the constructions, while keeping out designated undesirables, and so nontrivial, may not be consistent. There are of course classical alternatives to the maximal coherent constructions to be used, which apply maximal consistent set constructions. These involve some preliminary consistentizing of initial inconsistent data sets, by somehow selecting out an acceptable consistent subset, or by analogous fragmentation. Then maximal consistent set techniques are applied to achieve comprehensiveness. Rescher, who was one of the pioneers of fragmentation procedures (still in a primitive and unsatisfactory state), could have adopted such a "rational reconstruction" of coherence theories, but (as we shall see) he did not.

like principles, characteristically take the implicational form, $A_i \rightarrow B_i$ (for some indexing set for the i 's and with universality ensured by a generality interpretation). The lawlike principles involved will be of several familiar types, in particular *scientific*, those nomic principles supplied by science at the stage, and meta-scientific or *methodological*, those reflecting sound logical and procedural methods at the stage.

Then j -truth, truth at stage j , is introduced simply as follows:-

$\ulcorner A \urcorner$ is true at stage j iff $A \in T_j$.

Thus, in particular, under a temporal representation of the stages,

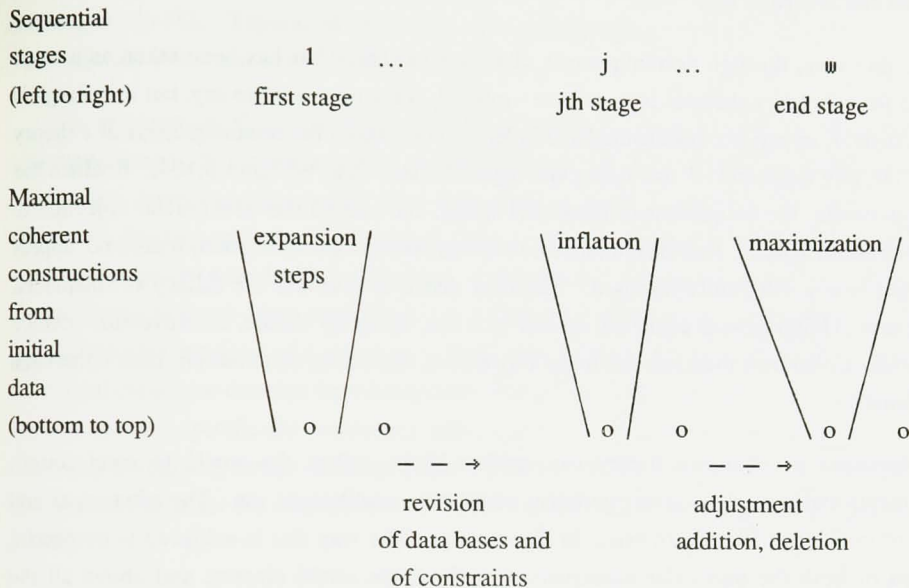
$\ulcorner A \urcorner$ is presently true, true at the present stage, iff $A \in T_{\text{now}}$.

The stages can be considered, following Peirce and Dewey, as stages of inquiry. It can be plausibly argued, from features of inquiry, that the stages are denumerable, and at most of order-type ω . The end stage, the limit of enquiry, to which other stages tend, in perhaps erratic fashion, will be signified stage ω . Then, under the intended coherence modelling,

$\ulcorner A \urcorner$ is true iff A is true at stage ω , i.e. if $A \in T_\omega$.

This is enough, according to some dictionaries of philosophy, to render the theory a coherence one, where 'truth is a property primarily applicable to [an] extensive body of [coherent] propositions, and derivatively applicable to any one proposition in such a system by virtue of its part in the system' (A.C.B. in Runes p.58). The account of truth, as what is arrived at, maximizing coherence, at the end stage of inquiry, has much in common with Peirce's limit theory of truth as 'what men are fated to believe at the end of inquiry' (and some of the remaining differences can be pared away under a coherence picture of rational belief). Because of such connections, a truth definition of the form, $\ulcorner A \urcorner$ iff $A \in T_\omega$, is sometimes called 'the Peircean equation' (e.g. Blackburn, p.249), even where, as here, the theory developed may diverge in significant respects from Peirce.

On some coherence stories, not excluded here, T_ω can never be attained, at least by finite creatures such as humans. Everything is open for further reconsideration, for instance, at the next stage, with new data input. On other accounts it is attained in the ideal limit; it may then be said to represent the Absolute, e.g. a God-selected Absolute. (But nothing so far excludes the possibility that stage ω equals stage n for some finite n , since the limits of inquiry may be unexpectedly attained, for one reason or another, in one way or another, after only finitely many stages. Such a scenario presupposes a strong foundationalism: that initial controlling data are finally adequately ascertained and not liable to revision in the light of further information.)

Diagram 2: The double construction involved.

The double construction is not uniquely determined. Considered at any given stage it is far from unique; but nor is the overall totality of constructions and stages necessarily unique. For one thing, an m-c construction can be accomplished by various different procedures and methods and subject to different constraints. For instance, it may be carried out nonconstructively using Zorn's lemma (as in RLR for relevant theories), or it may be accomplished rather more constructively using the general method of Lindenbauming (or it may be done differently again, to include specific treatment of semantical paradox, with a transfinite construction). Observe that, especially at early stages, the results of the constructions may fail to measure up to common expected desiderata; for instance, the outcome of a construction, where things are duly fixed so that it is attained, may be radically incomplete or seriously inconsistent. If so, improvements can be effected (e.g. by shedding previous overdemanding data or modifying constraints) at later stages of inquiry. For another thing, the construction selected may well turn upon an enumeration of the language adopted at that stage, something that can be effected in many different ways - ways which bear on what happens to the truth or falsity status of Don't Care statements. It would be a large assumption, then, that even the end stage T_w is uniquely determined. It is an assumption that will *not* be made, and that is not needed. But its abandonment is highly controversial. For theory T_w should correspond precisely, according to correspondence and realist theories, to "the world". Accordingly, the world itself is not independently uniquely determined. Rather a world is *chosen*, and *designated*, as *the* world.

But this is exactly the real situation anyway according to coherence and pluralist positions (as is explained and argued in RP).

In this way, through nonuniqueness of actual worlds, what has been taken as a main problem for coherence theories is overcome - evaded, some may want to say, but the charge is hard to sustain, in part because some have independently taken the *nonuniqueness* of a theory telling "the way the world is" as evident and unproblematic (e.g. Williams p.104). Realism has always *assumed* the uniqueness of the actual world, and lodged this as a crucial objection to coherence constructions. But the uniqueness involved remains an assumption; it does not appear to be, and is not, externally imposed. The idea that it is involves the fallacy of misplaced definiteness. Uniqueness is achieved, insofar as it can, rather by choice, *controversial* choice sometimes. Coherence theorists can make this choice too, but so as to *match* their coherence constructions.

Moreover a coherence theory can, within limits, select the world to meet sought requirements and virtues, such as regularity, simplicity, lawlikeness, etc. The advantages and virtues of coherence Blackburn sees, do then accrue. The way this is achieved is by careful selection of both the particular construction method, the initial classes, and above all the constraints imposed in SC_j. It is time to say more about these things.

For definiteness let us take, as working example of the basic M-C-construction at stage *j*, the type of Extension Lemma deployed for modal and relevant logics (Lemma 4.3, RLR, p.307; Constant Extension Lemma, SQR, p.326; to avoid confusion the notation *U* for the exclusion set is preferred). There are many, often tricky, variations that can be played on such an Extension Lemma to obtain specific logical results, but the basic form remains pretty much the same, and can be deployed for a language *L* of any level of generality (e.g. for acclaimedly universal semantical theories, such as in US). The construction starts from two given sets of sentences or wff of *L*, *S* and *U*, with *U* not derivable from *S*. The starting set *S* = *IT_j* comprises the initially given truth-candidates at that stage, the accepted starting or basic or protocol statements or clear and distinct judgements, while *U* = *I_{⊥j}* consists of the initially recognised falsity-candidates, the basic rejects, at the stage.

Fortunately, a sufficiently detailed account of the initial statements has been provided by Rescher in the case of *S* (i.e. included) statements (under the heading 'the key concept of a datum', p.53ff.), and an analogous account of initial *U* (i.e. excluded) statements is easily supplied. A *truth-datum* 'is - in the traditional sense - a "given" ... as a *truth-candidate*; as *potentially* or *presumptively* true; to be classed as true providing that doing so creates no anomalies ... not as a *truth* or as *actually* true ... [except] in the final analysis' (p.54, rearranged). '... its claim must be well-founded. A proposition will not qualify as a [truth-datum] without *some* appropriate grounding. [Truth-]data are propositions that have a proper

claim upon truth... . A [truth-]datum is a proposition which, under the circumstances of the case, is a *real prospect for truth* in terms of the availability of reasons to warrant its truth-candidacy' (p.56). Typical of truth-data are experiential *evidential* statements, such as 'deliverances of our senses and memory' (p.57).

Such experiential data provide part of the answer to another standard objection to any coherence theory, that coherence does not indicate truth, that it cuts off "Truth" (as supplied by coherence) from experience and thus from the world.²⁸ Rescher's response elaborates Blanshard, Bradley, and others before him: 'The coherence theory would indeed be deficient if it held "that a system would still give truth if ... it disregarded experience completely" [Blanshard]. Our recourse to [truth-]data [and Bradley's to facts of perception and memory] is intended to supply just this requisite of a recourse to "experience"' (p.66, p.67 on Bradley's "facts"). '... traditional coherence theorists have not located truth in merely generic coherence *per se*, but have insisted that it is specifically "coherence *with experience*" that is to be the standard of truth. [In this vein, Ewing and earlier Joachim.] The coherence theory of the British idealists has never abandoned altogether the empiricist tendency of the native tradition of philosophy' (p.50, italics added)!

The assumption, at each stage of construction, of initially given truth-candidates and falsity-candidates does not induce circularity and is not incompatible with revisability. For truth-candidates are not truths, and statements adopted or reported at one stage can be treated differently at the next or later stages (as on Popper's picture of an adaptable basis). Thus there are, or rather need be, no independent givens, that are immune from a change in status. In practice there were such givens on traditional positions, in the shape, for example, of instances of the laws of thought. These could be deployed to ensure that S is nonnull, while their negations, being false and not derivable, would guarantee that U is not null. Such data controls would hardly prevent an empirically wild construction. It is as well then, that the traditional basis was substantially larger, that it was *grounded*, in Bradley's terms, in perception and feeling, i.e. it was broadly empirically informed.

It is assumed that the initial data sets have been pruned back sufficiently, so that they are exclusive and U is not derivable from S. This can always be effected by making the initial

²⁸ Similarly the data sets provide the control, *control by experience*, Blackburn seeks (p.243, p.290), in terms of which Russell's oft-repeated objection to Bradley - that comprehensive coherence can involve falsity - may be straightforwardly met. Recent variants of this objection, such as Pollock's to any nebula theory and thereby any coherence theory (p.290), are similarly met. For Pollock's weak conclusion (p.292) that 'at least ... some beliefs must have *something* to do with the evidence of our senses' is not contested. Pollock's objection succeeds at best against *pure* coherence theories, which surrender control; according to Williams, it does not succeed then either, because it presupposes what it is supposed to count in favour of, a foundational view (p.112). However even Williams is not proposing removal of control entirely (see p.201).

classes S and U sufficiently small and restricted in subject matter.²⁹ Nonderivability, which expands upon exclusiveness, is deployed in the standard logical sense. Set Δ is derivable from set Γ , symbolised $\Gamma \vdash \Delta$, if there is a sequence, passing requirements for a derivation, of some elements of Δ from members of Γ , i.e. in normal settings of a disjunction $B_1 \vee \dots \vee B_m$ of members $B_1, \dots, B_m$ of Δ from a conjunction $A_1 \& \dots \& A_n$ of elements $A_1, \dots, A_n$ of Γ . Again in normal settings, where the derivation is finite, this will hold where and only where the implication $A_1 \& \dots \& A_n \rightarrow B_1 \vee \dots \vee B_m$ is provable (within L at that stage).

Among the principles provable are not only those of a (quite undemanding) normal setting such as central logical principles like $A \& B \rightarrow A$ and $(x) A(x) \rightarrow A(t/x)$, but also the constraints SC_j of that stage j. What this will mean, where $A_k \rightarrow B_k$ belongs to SC_j , is that whenever A_k is in the extension of S so also is B_k . Thus the extension will conform to, or satisfy, whatever these principles represent - simplicity, regularity, etc. (It will not however follow, in the absence of further conditions, that the law-like principles $A_i \rightarrow B_i$ themselves belong to the extension, except in degenerate cases where the central logics include paradoxes of implication).

The construction takes for granted, or supplies at the outset, some enumeration $C_1, C_2, \dots, C_n, \dots$ of the sentences or wff of L. Again this can always be accomplished for denumerable languages (e.g. by Gödel numbering). Then sets S_i and U_i , extending S and U respectively, are defined recursively for each nonnegative integer i, as follows (in the most straightforward type of case: see RLR, p.308):- $S_0 = S$ and $U_0 = U$. Then, given that S_i and U_i have been defined, S_{i+1} and U_{i+1} are defined thus:-

- i. Suppose $S_i \cup (C_{i+1}) \vdash U_i$, i.e. U_i is derivable from S_i augmented by C_{i+1} . Then C_{i+1} is added to U_i , but not to S_i , i.e. $S_{i+1} = S_i$ and $U_{i+1} \cup (C_{i+1})$.
- ii. Suppose otherwise U_i is not derivable from $S_i \cup (C_i)$. Then $S_{i+1} = S_i \cup (C_{i+1})$ and $U_{i+1} = U_i$. Finally
- iii. $S_\infty = \bigcup S_i$ and $U_\infty = \bigcup U_i$; i.e. S_∞ and U_∞ are the respective unions of all the S_i and U_i defined by steps i and ii.³⁰

²⁹ At least it can be done, to quite exacting standards, for significant formal fragments of languages of the type under examination. To be sure, there are costs to such pruning exercises, e.g. anticipated truths may wind up in the expanded excluded class (and vice versa). However corrections and adjustments can - within limits, imposed by paradoxes and such like - be effected at the next stage.

In permitting such pruning, coherence theories differ markedly from self-evidence theories where much effort is directed to *enlarging* truth-data sets (cf. Rescher, e.g. p.73).

³⁰ For more complex constructions, a sequence of structures or models may be defined which proceed into the transfinite.

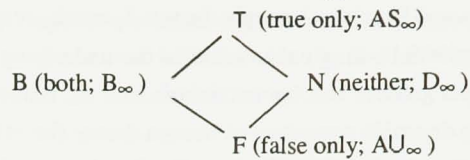
The resulting maximal sets S_∞ and U_∞ , which supply the sets T_j and $\perp_j$ respectively of the j th stage, form a maximal pair in the following exact sense in the underlying relevant logic framework:- Every wff belongs either to S_∞ or U_∞ , but not to both, and U_∞ is not derivable from S_∞ . It then follows that S_∞ has the desirable properties of being a theory (i.e. it is closed under provable implication and adjunction) and prime (i.e. whenever $C \vee D$ belongs to S_∞ either C or D belongs to it). Proofs are elementary (for details see RLR pp.307-8).

Some truth theorems, harmonious consequences of the theory which indicate that it is not entirely on the wrong track, are now immediate. For example,

	$\text{Tr}A \ \& \ B$	iff	$\text{Tr}A$ and $\text{Tr}B$
For,	$\text{Tr}A \ \& \ B$	iff	$A \ \& \ B \in T_\omega$, by the Peircean equation
		iff	$A \in T_\omega$ and $B \in T_\omega$, by maximal coherence
		iff	$\text{Tr}A$ and $\text{Tr}B$, by the Peircean equation.
Similarly	$\text{Tr}A \cup B$	iff	$\text{Tr}A$ or $\text{Tr}B$, and, if T_ω is classical,
	$\text{Tr}\sim A$	iff	it is not the case that $\text{Tr}A$.

A sophisticated coherence theorist will not remain satisfied for very long with such a straightforward construction as suffices for semantical purposes of sentential relevant logics. Such a construction has already to be complicated to take account of quantifiers (if the expected theory is to emerge), and there are other important reasons for seeking elaboration or variation of the construction - as might, for instance, be done at a later stage than the present. One reason, which will appeal to the austere-inclined, though the situation seem to disturb idealists like Bradley, is that S_∞ may appear, in an important respect, too large; namely, all the junk that does not lead derivationally to relevant earlier parts of U_∞ is thrown into S_∞ . There is evidence that coherence theorists like Bradley would not have been perturbed by this additional completing junk (which does confer several systemic advantages), but would, like contemporary AI theorists seeking powerful "monotonicity" rules to complete informational bases, have welcomed it. 'If by taking certain judgements as true, I can get more system into my world... make my world wider and more harmonious..., then these "facts" are so far true' (Bradley, rearranged, quoted in Rescher, p.74).

One resolution of the supposed excess-information difficulty splits S_∞ into two parts, either at step ii or by a further subsequent construction. So result, depending on method adopted, an austerer S_∞ , AS_∞ , and a residue truth-value gap class, D_∞ . More generally then, a stage construction will yield a 4-valued result, with values as diagrammed on the familiar four-fold lattice:-



The further class B_∞ will result where S_∞ and U_∞ overlap, for instance because closure under constraints SC leads to elements common to S_∞ and U_∞ . In the straightforward working example that doesn't happen, things remain conveniently two-valued. (But in any event a two-valued reduction can be effected, using the star operation; see RLR, chapter 3.) For what follows, which raises quite enough largely independent difficulties, let us adhere as far as feasible to the simpler two-valued features of the straightforward working example.

The example displays coherence, fitting together into a system, in operation. The fitting together (of which the traditional jigsaw offers a helpful picture) is done through *relations* to other components of the system (in a jigsaw those relations are of spatial and pattern orientation and fit). That is coherence. To reiterate a message that is difficult to get across (ideologically-blocked channels), coherence just is such a fitting together suitably in a system. The construction of S_∞ , which is certainly a system, a relational structure, fits the statements formulated in the proposed language together in a quite precise fashion.³¹ As Rescher emphasizes, enlarging on Blanshard on coherence, 'System is the key term. The groundwork of the coherence theory has its roots in the idea of *system* The coherence theory implements the fundamental idealistic conception that truth - and with it the reality of which it is characteristic - represents an inclusive and appropriately connected systematic whole' (pp.31-2; similarly Blackburn on the root ideas of coherence theory, p.237).³² Exactly this is implemented as regards truth through the m-c constructions. A statement is true iff it belongs to a system, T_W , of which it is a part.

³¹ Another shortcoming of the straightforward working example from relevant logic is that it emphasizes a single *derivational* relation - though other relations can enter in subsidiary ways (as they do, e.g., in *Principia Mathematica*, where too the focus is on derivation). There is nothing in principle however to stop closure in Extension Lemmas under *several* relations (e.g. both logical and nomological implications), and some more complicated constructions do just this.

It is a fair complaint then that the double construction story preferred lies excessively within the restrictive deductivist tradition. The rejoinder is that indicated, that such deductive features are not essential, but merely illustrative. Closure under other rules, including radically nondeductive ones, could be incorporated into the constructions. But such promises are one thing; the catch is in the doing. For so far nondeductive logics remain a seriously under-investigated and ill-appreciated region.

³² 'Not only truth, but also meaning, derive from the relation of a datum to a system of which it is apart' (Reese reporting Blanshard). But whether meaning can be accounted for in this way, through coherence semantics, or requires more (e.g. assertion or verification and rejection or falsification constructions) is a separate issue: see also the Appendix.

Coherence is not consistency, and, does not reduce to consistency (an idea which is encouraged through fixation on only one relation - an inadequate classical derivation relation). Coherence need have little to do with consistency: consistency is neither sufficient *nor* necessary for coherence. That consistent mismashes or pastiches may not be coherent is evident. Less evident, so far is that inconsistent theories may be coherent. But one important message of relevant logics (or more accurately of paraconsistent logics), which is beginning to get through, is that inconsistent theories, such as naive set theory, may be coherent. Only dogma excludes coherent inconsistent theories, dogma which *should* be alien to the thorough-going empirical character of many coherence positions and their supposed permanent possibilities of revision.

In truth constructions, much can be infiltrated, through constraints. Even Kant's forms and ethical requirements could be imposed, but they are hardly obligatory or always particularly advantageous. What *are* especially advantageous constraints are main methodological principles of science, such as prevailing reliability of the senses, uniformity of "nature", regularity, simplicity, economy and so on. It is the prospect of *requiring* such virtues and thereby sceptic-proofing so apparently cheaply among other things, that makes the enterprise of refurbishing coherence theories especially exciting.³³ For these virtues can, it seems, be built into the explication of truth itself (for some of the historical background of this approach, see Blackburn, p.238).

Suppose, to begin, a major technical problem is simply bypassed, namely exactly what logical shape these principles take; and assume that they can be cast into a simple, but commonly expected, implication form, $A_k \rightarrow B_k$, for k some suitable index (even though implicational, a principle may be of higher order). The class of these methodological principles (i.e. $(A_k \rightarrow B_k: k \in K)$) is no doubt subject to various requirements at each stage of the construction, but these will not prevent the class from undergoing modification from stage to stage. At each stage the methodological constraints are handled technically in the same fashion as meaning postulates in relevant logic settings. So also are nomological requirements.

³³ An alternative stronger approach sometimes suggested, e.g. by Williams p.105, of attempting to exclude various sceptical systems (such as those where our senses endlessly mislead us) as *incoherent* is too strong; it overloads coherence, and is bound to fail against smarter, coherent sceptics. The weaker approach, of choosing and trying to implement sceptically-immune constructions is not without other problems.

For, as nice conditions can be imposed on a truth construction, e.g. simplicity, regularity, so other more questionable conditions may be imposed or generally presupposed, for instance categories and so on, in the style of Kant. But many of these presuppositions or imperatives may be a matter of Western human "evolution", or may be even more culturally dependent. Presumably then *they* are inessential, and in a different construction they could be peeled off. The whole business of methodological additions as regulative principles is then, without further controls, very double-edged. Vices can be infiltrated instead of virtues, and what is imposed can be peeled off again (and presumably *should* be if it is excessively culturally dependent or chauvinistic).

Consider, in Lindenbaum construction, the augmentation of S_i . If C_{i+1} is A_k for some k , add B_k also to S_i . The addition will not upset the separation of S and U sets, since when A_k does not permit derivation of elements of U neither will what it implies B_k . The resulting maximal set at that stage will accordingly be closed under simple methodological principles. Augmentation will also take more complex forms. Suppose, for instance, a complete arithmetic is sought as part of the whole truth. Then closure under an Ω -rule will be built into later constructions, perhaps as follows: at the final step of a construction, iii, put $(n)A(n)$ into S_∞ if for each numeral m $A(m)$ is in some S_i , with $A(m)$ of course some arithmetical expression. In such a way, classical problems of the incompleteness of formalised arithmetic (never a worry for old-timers) can be by-passed.

The augmentation method affords the rudiments of a straightforward and pretty answer to what is a very deep question for realism: Why is the world so conveniently regular, simple, and so forth (so far as it is!)? In crude outline, the answer is as follows:- Because successive truth constructions are bent to making truth conform to methodological principles (here at least additional junk can be very handy), and *the* world is conceptually fashioned and selected to match.³⁴ Sequential coherence constructions offer two broad types of opportunities for bending, closure within constructions, and the removal or discounting of anomalies through adjustment and reinterpretation of initial classes between stages.

But the theory as so far elaborated contributes nothing much to the unravelling of the complex and important logic of stage-to-stage adjustment (which parallels that of scientific theory change, and will involve deanomalogizing and consistencizing methods and much trial-and-error adjustment). By contrast with mainstream logics (and also with the logics of intra-stage construction), the requisite, relevant, logic of theory change, applied in stage-to-stage adjustment, will be decidedly nonmonotonic, i.e. much information may be shed in proceeding from one stage to the next (for some relevant development of the theory, see Fuhrmann).

³⁴ The discussion is taken further in OI. A similar story goes some small distance towards meeting Einstein's realistically-enhanced puzzle as to comprehensibility. According to Einstein, 'The most incomprehensible thing about the universe is that it is comprehensible' (quote in Narliker p.1), or more colourfully, 'the eternal mystery of the world is its comprehensibility' (Nerssession, p.ix). Insofar as our world is comprehensible - much remains uncomprehended or little understood - it has been selected and adjusted with just that as one constraint in the m-c optimising construction and the neutralising (or interpreting away) of anomalies, e.g. as errors or simple falsity-candidates (a feature of on-going scientific practice now receiving emphasis in the sociology of knowledge). Unsurprisingly, the idea of such selection and fine-tuning, integral to philosophical rationalism, is to be found in the rationalists.

Remove the unique choice from God's control (transferring it to cultural evolution) and Leibniz has indicated, though in excessively maximalising form (for which muddling along substitutes), much of what is involved: 'the actual (i.e. the best world) optimizes the combination of *lawfulness* (coherence, cohesiveness, orderliness, simplicity of hypothesis) with *variety* (comprehensiveness, content, richness of phenomena)' (Rescher p.73 n.2) - not exactly a reflection of scientific realist preferences.

There is much discretionary room for selection, convention, and control to enter in the double construction process, not only in the stage-to-stage adjustments, especially as to what is shed, what introduced, what thereby anticipated (in setting, as elsewhere in scientific practice, the "selective direction"), but also within the stage constructions, as for instance what constraints are imposed or tried, which m-c procedure is adopted, and so on. The choices made or anticipated also matter for other purposes. For instance, choice of m-c construction is some philosophical moment. Use of a Lindenbaum construction, as in the working illustration, is heavily linguistic as well as a little precious. In addition, Lindenbaum constructions and the like are rather too analytic and piecemeal for genuinely holistic coherence constructions, which would no doubt involve maximization techniques which do not simply proceed statementally step-by-step, but take in whole classes of propositions. Application instead of Zorn's lemma (as illustrated in RLR p.310), or of some other objectual procedure, would enable a decently propositional, more holistic construction. Plainly at several of the discretionary points, significant features beyond the reach of bare logic enter. In particular, choices made are commonly arrived at through a range of complex social processes, which include those processes settling choices, conventions, agendas by which social epistemic practices like science proceed. While such processes certainly make significant extra-logical input to double constructions, these outside selection controls do not involve, what would induce circularity, essential appeal back to a uniquely defined world. Subject to such inputs and other CCC requirements, the double construction can proceed in an essentially internalist fashion. The issue, apparently a difficulty for Spinoza, arises as to whether internal marks can reveal that an end-stage has been reached. Given suitably standardized constructions, they may. Then encountering a fixed or stabilization point, after which m-c constructions can remain the same (for all two-valued statements), internally signals an end stage; otherwise, with no such stabilization point encountered, an end stage has not been reached.

2. Meeting further objections to the sort of coherence theory sketched.

Some of the circle of objections by which coherence theories are beset have already been sufficiently met, e.g. how is coherence characterised, or else already suitably resisted, e.g. how is uniqueness guaranteed. In meeting other objections much of the hard work has often been done once again, in sufficient detail, by Rescher (see esp. p.94 ff). But the construction differs so much from Rescher's elaboration as make further details and some comparison of constructions desirable.

Rescher is obliged by his elaboration to make and defend a sharp logical/factual distinction (p.45ff. p.360ff). 'At best, a coherence analysis of truth can apply within the extra-logical domain of empirical truth' (p.46). The m-c construction can avoid this serious and difficult restriction, and assess the claims of logic and mathematics in much the same fashion as

empirical claims. The principles of logic are however applied in the constructions, like methodological principles, in a *regulative* fashion. (This is, but with a difference, the first approach Rescher considers and turns away from: p.45). Won't this immerse us in the circularity objection (that the truth of coherence depends curiously on coherence itself), which Rescher escapes (p.47) by settling for less than universality? The situation is like that with the semantical theory of truth. If truth and other semantical predicates are included in the language applied, then there will be circularity and likely paradox also. Let us not try then for universality at this early juncture, but join the ascent to truth, as with the semantical theory, without an unnecessary handicap.

The core of Rescher's theory is a modified self-evidence or intuitionist position.³⁵ Were it not for the problem of inconsistent data, the account would coincide with an "intuitionist" one, relative however to a comprehensive set *S* of truth-candidates. Then 'P is true (relative to the set *S* of data) whenever P is a consequence of *S*', as on intuitionism (see p.75, where an outline of Rescher's theory may be found). Rescher, in line with a main modern movement, but in contrast to many self-evidence positions, takes consequence to be logical or deductive consequence, which he claims 'patently coincides' with maximal coherence! (For in general the deductive closure of set *S* is not maximal, but permits of consistent extension.) The account differs from an intuitionism which mistakenly narrows closure to closure under logical consequence, in these respects then:- Firstly, the set *S* of data is taken to be revisable by deletion at later stages, so that, by contrast with modellings for intuitionistic logics the inclusion relation $S_i \leq S_j$ may fail for *j* a later stage than *i*; i.e. the procedure is duly nonmonotonic. Secondly, there is much complication to allow for inconsistent truth-data sets. Indeed a great deal of the work and quaint logical machinery in Rescher's book is fashioned to accommodate deduction from inconsistent premiss sets, something that is accomplished without hassle and virtually automatically in paraconsistent logics. By taking advantage of a paraconsistent logic such as relevance logic (the technology of which was available in Pittsburgh), Rescher could have short-cut an extensive roccoco (but still inevitably incomplete) investigation of the consequences of inconsistent sets through their consistent subsets, and thereby have stated his theory much more directly and simply.³⁶ For, in essence, *truth is simply given through the closure under a decent paraconsistent logical consequence of suitably comprehensive data*. Some troubles brought with such an elementary statement of the basic theory are immediate: the divergence of the theory from coherence theories is exposed, and the inadequacy of the theory is rendered manifest.

³⁵ 'Self-evidence' is Körner's description, 'intuitionist' Rescher's. The intuitionism here involved is of course that of an older philosophical tradition than that associated with intuitionistic mathematics.

³⁶ A similar point tells against several other Rescher enterprises, which could be simplified and improved in an analogous way, e.g. theories of hypotheticals, of preference, of assertion.

The basic weakness is that maximization is applied at the wrong point.³⁷ Certainly, it is important to have data sets take account of all reasonably available information; even so truth-data sets cannot include higher level laws or theories without becoming unduly soft. But nor are such laws or theories deducible. Deduction, even classical metatheoretic or strict logical consequence, is not ampliative of non-analytic information, non-analytic content is not increased.³⁸ But what is "given" is undoubtedly *much* amplified in reaching a theory that encapsulates truth (one of those theories, that is).

The gap is revealed by showing how an adjusted self-evidence theory (under which truth does not accumulate intuitionistic-style) can be coupled to a coherence theory of m-c vintage. Let us suppose that self-evidence (s-e) and m-c constructions keep in step, stage by stage, and that data sets match. Then there are elementary dodges by which a self-evidence theory can be adjoined, in parasitic fashion, to a coherence theory. It is simply a matter of coupling a degenerate amplifying implication with truth at a stage, i.e. an implication which amplifies the data, revealing what is involved. Where T_j is consistent, material implication will serve perfectly well to formalise such "involvement"; but at least at earlier stages there is no assurance that T_j is consistent, in which event material implication will wrongly trivialise the truth set of the self-evidence theory. (This of course was Rescher's problem, and part of what gave him a large book.) However there are paraconsistent implications admirably equipped to replace material implication, namely those of paraconsistent logics in the vicinity of da Costa's C systems. Consider the j th stage of coherence construction, and let ' $\supset$ ' represent the implication of some suitable C system. Statements of T_j are true at that stage, so they can be assumed as axioms of an applied C system. By virtue of the positive paradox principle, $A \supset B \supset A$ of C systems, for any D in T_j , $B \supset D$. Then, letting the implication involved, i.e. $\supset$, deliver the ampliative closure SE_j of $SE(T_j)$, $SE_j = T_j$. For, subject to some very weak conditions, $SC_j = \{E: (PD)(D \in SE(T_j) \ \& \ D \supset E)\}$ is both contained in T_j and contains it. Then expanded self-evident sets just copy m-c set at each stage. But far preferable would be, what is far harder to come by, a non-parasitic approach to self-evidence theories, which introduced informative ampliative connectives and principles.³⁹

³⁷ Rescher clearly distinguishes the two types of comprehensiveness: of the data - which he properly contracts, at one point, to 'sufficiently inclusive', not maximally inclusive - and of what the data yields. But he makes the critical error of confining the latter to 'the largest possible sector of what is contained *within* the data' (p.73).

³⁸ For this sort of reason Descartes, according to Körner (p.105), took the "deduction" involved to be a *non-logical* ampliative relation. Such a relation still awaits historical explication and technical investigation.

³⁹ The exercise does however show rather clearly, what some of us had doubted, a clear type of use for da Costa's C systems, as elementary replacements for classical and intuitionistic logics where the data goes "bad", i.e. inconsistent. The harder exercise, of appropriate nondeductive ampliative logics, has been studiously neglected in mainstream contemporary logical investigations.

Once an ampliative involvement relation is properly admitted Rescher's stunt of trying to expand the truth-data beyond what is given, can be decently abandoned. Really there are *three* connected elements at work in avoiding excessively strong comprehensiveness requirements on the initial data: namely, the deployment of falsity-candidates to effect exclusions, the amplification m-c inflation then permits, and the improvements in data bases and constraints achieved through iteration of stages.⁴⁰

Rescher who purports to outline a theory of truth, may have confronted most of the older objections to a coherence account of truth: that is no longer enough. For Blackburn, who aims to demolish any such theory, has bowled up a new objection, of wide applicability to truth theories involving the Peircean equation, which he claims 'is itself sufficient to force the coherence theorist to avoid direct analysis' (p.250; also p.256 and p.244). Judging by repetition, he is well pleased with this and coupled objections,⁴¹ which require 'the coherence theorist to avoid any definition such as Peirce's Naturally, it does not trouble me that this leaves no precise definition of truth' (p.250: Oxford analytic philosophy is not dead⁴²). If the reiterated objection were sound, it would strike out the refurbished theory offered as well. Fortunately the objection is wide of the mark (in some respects it is no more than, and no better than, yet another version of the paradox of analysis, and tells no more against definitional explications than that paradox does.⁴³)

⁴⁰ Stage-by-stage iteration serves to resolve objection (3) considered by Rescher, p.47; it can provide requisite 'further or better consideration'.

⁴¹ A less-pressed objection is the surprising one that 'wholesale worries of a sceptical nature may disappear' under coherence theorising (p.299), as if removing wholesale doubt were quite a vice (as well as damaging to philosophical business). The objection is less pressed because Blackburn confesses to being less certain of his ground. But he does think it tells decisively against 'any definition such as Peirce's, because one who 'adopts the Peircean equation ... cannot understand the suggestion that the members of $[T_{\mathbb{W}}]$ might be false' (p.250, p.249).

Short of $T_{\mathbb{W}}$, at an earlier stage $T_{\mathbb{W}}$ say, members of $T_{\mathbb{J}}$ may be false, and intelligibly so.

Even at $T_{\mathbb{W}}$ there is room for doubt that one is at $T_{\mathbb{W}}$. In any case, in these new paraconsistent times, there is no insurmountable difficulty in *understanding* the suggestion that an equation that is true, and necessarily so, may be false (realism offers a suitable, if now disputed, world model for semantical elaboration here). It is most important here that the equations do not give, or purport on their own to give, the *meaning* of truth (cf. Rescher p.23).

⁴² Nor has its parochialness really vanished. 'Just about any English speaker, looking out the window, would agree that grass is green ...'. Once we suppose that equally meritorious languages would lead their users to look out of the window and dispute whether the grass is green, we have lost any right to see ourselves as good signallers of colour. The correspondence conditionals become unassertable, and extended incoherence sets in' (p.254). Amazing stuff. In Australia, and parts of USA, grass is mostly brown; and the claim survives translation. Etc.

⁴³ Explications such as the Peircean equation offer equivalences of *at most* coentailment strength, i.e. of the form $D \leftrightarrow E$. (They do *not* pretend, *pace* Blackburn, p.244, that 'membership of a [suitable] CCC system [is] just the same thing as truth'.) But coentailment does not guarantee intersubstitution preserving truth in more highly intensional functors such as those of belief and assertion, e.g. where F is such a one-place connective, $F(D) \rightarrow F(E)$

Blackburn's intricate objection, fully faced, involves the loosely characterised notions of "proper pedigree" and "some best CCC system of beliefs". Luckily these notions, briefly discussed below, are said to be 'simply *interdefinable*' (p.245), more than halving the characterisation problem. Moreover "some best CCC system" (with 'CCC' short, as before, for controlled (by experience), comprehensive and coherent, p.240) can be sufficiently represented for present purposes by an m-c set (in fact 'best CCC system' is explicitly linked with a maximal coherent system, p.245 and elsewhere, so the representation is not too bad). Suppose now, to shape up to the objection, I set my beliefs by the m-c construction at some given stage g (e.g. the present, or ideally at ω). That is, I believe p iff $p \in T_g$, i.e. p is a member of some best CCC system (of beliefs, at the given stage), i.e. (at g) p has proper pedigree (PP(p) for short). Then it follows that I believe that p iff that p is true (at g). (Similar connections can be straightforwardly forged for falsity (at g).) In analogous fashion (with the proviso *at g* now supplied contextually), it is analytic that

(I†) if I form only beliefs with proper pedigree, then, for any q , if I believe q then it is true that q .

Blackburn's (I*) is in substance the instantiation of (I†) with the Moorean statement q_0 : 'there is a cat in the garden'; and his 'correspondence conditional' (I) is what follows from it by the redundancy of the truth functor in open settings, i.e. the truth half of the correspondence conditional amounts to

(I) if I form only PP beliefs, and then believe q_0 , then q_0 .

Now Blackburn proposes substitution of (a slight complication of) 'a coherence conception of truth' in (I*); namely, substitution for 'it is true that q_0 ' by '(the belief that) q_0 is a member of some best CCC system (of beliefs)'. The equivalence involved is in order, since the elements are analytically linked by the middle term, ' $q_0 \in T$ '. Thus results

(I**) If I form only PP beliefs, and then believe q_0 , then (the belief that) q_0 is a member of some best CCC system (of beliefs).

Suppose we let the substitution pass (its admissibility will depend on the nature of the conditionals and scope of the belief functors involved).

Blackburn contends that '(I**)' seems quite different from (I). It threatens to be tautologous, ...', whereas (I) is certainly not, but is tied up with 'us as good signallers of cats' (p.295) 'because our senses make us *causally* receptive to their presence or absence' (p.244).

does not follow. Such a direct diffusion of the paradox (developed elsewhere) is in fact yielded in less direct fashion by most "solutions" of the paradox of analysis.

This is widely astray. Both (I†) and (I) are analytic, by virtue especially of the meaning given to 'proper pedigree'. The truth of (I) has nothing particularly to do with our alleged ability with cats (it is singular too), and no immediate connection with fashionable causal notions; it is perfectly general, holding equally for *any* substitution instance.

Part of the story as to why Blackburn makes the assumptions he does about (I) is no doubt (as his text reveals) that he is working with a different notion of "proper pedigree" - and then inadmissibly shifts ground. First, the 'pedigree of E' is casually introduced as 'telling how E got into the ... set' (p.239). Secondly, proper pedigree appears as 'part of commonsense, a rough notion of what counts as a sane, sober practice of enquiry [whew!] enabling us to find out whether' local empirical claims hold true or not (p.243). Then (I) will no longer be generalisable (to arbitrary q). But nor will (I**): its threatened tautologousness will entirely disappear. Therewith the sophisticated new objection to any Peircean equation vanishes.

More troubling than any of the standard or new philosophical objections to a coherence theory, are objections to the incompleteness and to the real-practice inapplicability of the improved theory - objections that apply with even more force against traditional unsystematised coherence theories. Unremarkably, the present coherence enterprise - while it leaves matters at a stage beyond that which coherence theories, previously prematurely dismissed, hitherto reached - leaves much more to be accomplished. At a technical level more detailed investigations are wanted, both of relevance coherence constructions (e.g. when the constructions can be carried through, where they are transfinite they attain requisite limits or stabilization points if they do, and so on), and of relevant comprehensive theory change. These are whole research fields on their own, impeded by several problems bearing on improved coherence constructions, including those of logical formalisation of further declarative discourse, formalisation of methodological principles such as simplicity and uniformity, adequate formalisation of theory-deletion procedures, and so on. In the techno-logical development of coherence theories, it is still early days.

Such objections can take a nastier turn. Even should these sketchy and schematic constructions be duly filled, out, they remain pure fantasy. While such constructions can be outlined, little or none of the detail could ever be properly filled out, or any stage realised; they constitute but purely theoretical idealisations, remote from practice, from practical inquiry. A short response, too short, is that any theory of truth - absolute truth and not mere partial everyday rough approximations to it - is bound to be theoretical and remote from practice. Consider even the standard truth conditions for any universal statement about *all stars*, *every real number*, etc. To take an elementary example, that all stars contain heavy metals is true, so it turns out, iff, on some enumeration of all stars, each of the following is true: star 1 contains

heavy metals, star 2 contains heavy metals, and so on, through the enumeration of stars. Such an enumeration is presently unattainable, and, through it has practical bearings, is remote from practice. The objection accordingly accomplishes too much; it would tell against virtually all theories of truth that are supposed to apply in a comprehensive way, and indeed against much theory. In certain respects however, the situation with coherence theories may look worse than with semantic or correspondence theories. However, a semantical theory, worked out recursively using a satisfaction relation, with truth emerging at the end, can be seen as a special inflexible sort of coherence construction, which requires invariants given at the outset and does not tolerate much control by constraints. Put thus it looks like a special case of coherence, which avoids some of its difficulties while introducing others. But the objection from a practical inquiry standpoint to such practically inapplicable formalism is almost as severe, and again does too much, unnecessarily excluding some elegant formal modelling with considerable philosophical, and ultimately practical, bearings. (But the issue is a very large one, encroaching upon much formal modelling and entering into the battle of formalism with instrumentalism: for a contemporary American survey, see Gerson.)

3. Beginning upon showing the coherence theory true.

A major, and widely promoted, package of objections to coherence theories of truth concerns their adequacy to the intended task. Briefly, what makes a coherence theory of truth true? Why should coherence itself succeed? Furthermore, how do we know that such a theory captures truth? Tough questions if genuinely confronted, which cast earlier apparently easy delivery of virtues into some doubt - questions in answer to which Rescher takes inadequate refuge in pragmatic considerations (e.g. p.64, p.238), while Blackburn, after glancing cursorily at pragmatism (and raising the obvious difficulty 'Why should what is of utility be true?') hurries off into naturalised epistemology (pp.242-3), not to reappear.

A more ambitious hypothesis is here advanced: that, properly considered, other major theories of truth converge with the sort of coherence theory outlined. Thus, at a level up, the coherence theory coheres with other accounts, such as semantic, correspondence, and intuitionist theories. At bottom, then, *coherence theory is true*, in just the way it ought to be, *by virtue of suitable coherence*. In developing this theme more traditional coherence theories begin to be left behind.

Only a very small, yet difficult enough, part of the larger justificatory exercise (begun in SC) will be broached here.⁴⁴ For some much less grand standards of adequacy are now

⁴⁴ Plainly much more can be done, as fn.2 indicates and promises. For instance, a class of facts corresponding to the truths supplied can be recursively defined, and then a world can be distinguished in terms of the composition of these facts (see RP). Thus facts and their world serve, in turn, to make the truth theory true: bootstrapping at its best.

available for theories of truth, namely the (not undisputed) T-schemes of semantical theory. If a theory can deliver these, then there are promising initial grounds for supposing it offers an account of truth.⁴⁵ But maximal coherent set constructions are precisely engineered to allow an inductive proof of these schemes, given initial (atomic) cases, and initial cases are presumably eventually guaranteed. The whole business of deriving T-schemes in fact mirrors canonical-model completeness proofs.

The derivation is, *as* in the case of the semantical theory, not without substantial assumptions; these amount in fact to a proper part of the axioms (e.g. for satisfaction) of the semantical theory. Primarily it is assumed that at least by the ideal end stage ω , things have been got straight as regards *atomic* sentences or wff (under some canonical grammatisation of the language involved); that is, where A° is atomic, e.g. of the form $fa_1 \dots a_n$,

IB. A° is in T_ω iff A°

To say that the inductive basis, IB, is assumed is not to say that it cannot also be argued for more or less cogently. It can be, for example along the following plausible-looking lines:- Either A° is in IT_ω or it is not. If A° is in IT_ω then, given judicious pruning of the experiential base at earlier stages, datum A° is there because it has survived and is sound: so A° . Alternatively, if A° is in T_ω but not in IT_ω , then it has been put there in the course of the construction. Thus it represents an element of the coherence (social) construction of reality; so again A° . The converse can be argued from the restricted coherence theme that all that holds which is elementary either is a matter of experience of a coherence amplification thereof (an obvious variation of empiricism, restricted however to atomic wff). Hence, if A° then it is either a datum assured by the experiential base or it is settled by the coherence construction; so, in either case, A° is in T_ω .

In order to show how the induction now proceeds, let the logical language (providing full deep structure on some over-optimistic prognoses) be, for the moment, standard first order. Such first order restriction means that of all there might be to bother about (and is), all that need be considered, are induction steps for classical connectives, & and $\sim$ say, and one quantifier, $\cup$ say. But the details of these steps are conveniently guaranteed by the m-c construction (including that for $\cup$, if it is given an extended substitutional, i.e. domainless, interpretation) together with the Peircean equation, as now shown:-

⁴⁵ While promising the grounds are, on their own, hardly decisive. For a variety of theories, some incomplete, some deviant, some merely syntactical, will satisfy similar schemes. Wider convergence than just with T-schemes *is* eventually required.

<i>ad</i> &.	$T \vdash A \& B \uparrow$	iff	$A \& B \in T_w$	, by the Peircean equation
		iff	$A \in T_w \& B \in T_w$	, by m-c construction
		iff	$A \& B$	, by induction hypothesis.

(Note that the epitheory appropriately includes the object system.) For negation there are optional paths. A similar step to that for conjunction & involves, as with the standard semantical theory, the important assumption - an integral part of orthodox ideology - that in the end consistency (like truth, virtue, etc.) will prevail. But such a restrictive assumption can be avoided, by using the * operator, deployed with a double induction:-

<i>ad</i> ~.	$T \vdash \sim A \uparrow$	iff	$\sim A \in T_w$	, by the Peircean equation
		iff	$A \notin T_w^*$	, by construction of T_w^*
		iff	$\sim A$	, by second induction hypothesis.

<i>ad</i> $\cup$.	$T \vdash (x)A \uparrow$	iff	$(x)A \in T_w$	, by the Peircean equation
		iff	$A(x) \in T_w$	, for all x
				, by appropriate construction of T_w
		iff	$A(x)$	, for all x
				, by the Peircean equation again
		iff	$(x) A (x)$	, by the domainless rule.

It then follows generally for every first order wff A,

$$T. \quad T \vdash A \uparrow \quad \text{iff} \quad A;$$

that is, a coherence theory duly delivers the T-schemes. The method can be adjusted to conform to mainstream views on quantifier interpretation in the usual fashion, by introducing an auxiliary satisfaction predicate (details will resemble those given in Priest and Crosthwaite for a relevant truth theory).

More important is the removal of standard first order straitjacketing, intensionalizing especially, since deexistentializing is fairly trivial. For richer logical frameworks, the least work strategy is to gear the inductive argument to parallel completeness arguments by maximal coherent set methods. To attain sufficient generality, consider a framework, such as that of free λ -categorical languages, that pretends to universality; take, also convenient for present purposes, the corresponding universal semantics (given in US); and prepare for the final complication. The master m-c construction at each stage j is but one construction (that corresponding to the select actual world at that stage) among a system of m-c constructions (corresponding to a rich but not extravagant range of worlds). For highly intensional languages the truth induction at T_w involves not just T_w itself but other m-c sets of the system Ω at stage w. The harder work of a completeness theorem for theories expressed in such languages typically goes into showing by induction that, for every wff A and every c in Ω

$I_C. \quad A \in c \text{ iff } I(A,c) = 1,$

where I is a 1-1 function from wff and sets of Ω to $\{1,0\}$ indicating whether or not a given wff holds at a given set or not. Thus $I(A,c) = 1$, often abbreviated simply as Ac , reads: A holds at c . But by familiar definition, A holds iff it holds at the master (or base) construction of a system, i.e. the subscript T_ω can be deleted. Hence, specialising I_C to ω ,

$A \in T_\omega \text{ iff } A$

Combining this result with the Peircean equation yields the T-schema T at once. The appeal to such definitional "proof" may look a bit swift. But the underlying argument involved is in order. What it means is that the inductive argument establishing the T-schema from basis IB is strictly isomorphic to that used in establishing completeness through I_C .

The coherence theory presented is thus verified (thus far). For it yields the conditions of adequacy set up for the semantical theory; and accordingly also coheres with that theory. But the rational coherence reconstruction exhibited, explained, and verified undoubtedly remains somewhat artificial - after the fashion of much formal work - decidedly ideal - as no one does, or could accomplish, except in a very gappy way, more than a fragment of the constructions involved - and in part deliberately ahistorical - since it uses a logical technology not available to traditional coherence theorists. Should these elements be pressed into further objections, the response need not be merely apologetic: that more formal truth theories are bound to have this sort of character. Instead it should be that at this later and latter stage the distortion involved is not excessive, that rather such development is overdue, and that what is done is nonetheless, despite evident limitations, decidedly revealing.

APPENDIX. Coherence theories more generally, and of meaning and morality particularly.

Coherence theories of *truth* are but one type of coherence theory. Other types are now to be seen occasionally on the American philosophical market, for example coherence theories of *meaning*, of *justification*, and of *knowledge*, and these types make it easy to generate more, such as coherence theories of *explanation*, of *belief*, of *empirical information*, and so on. Can similar coherence constructions to that developed for truth be applied to rehabilitate or improve these other diverse theories? In some cases such constructions look promising, but there are some crucial differences, firstly, in the initial data which must be adjusted, if they can, to the cases in hand, and secondly, in the details of the constructions. For example, the biconditional for truth (good for other more semantical predicates), $\lceil A \vee B \rceil$ is true iff $\lceil A \rceil$ is true or $\lceil B \rceil$ is true, breaks down for belief ('is believed' and the like) and for justification. Accordingly the underlying logic used in more epistemic applications has to be further removed than relevant logic from classical principles. (For instance, an account of belief might apply a relevant containment logic, and accordingly but little investigated maximization constructions.)

As a result of all these variations, any entirely general theory, synthesizing all types of coherence, will look excessively vague. No doubt any coherence theory will involve *some* coherence construction applying *some* derivational logic from *some* basis. But that is so far too indeterminate to get to grips with technically in a revealing fashion. Obtaining requisite detail appears to call rather for a case by case approach. Let us consider, briefly, one further semantical case, that of meaning, and one further afield, that of morality.

There are two main ways a coherence theory of meaning may go, given where we have already got with a corresponding theory of truth. First, the truth theory can be put to work to provide a theory of meaning, in the sort of way that Davidson and others have proposed, but starting from a coherence theory instead of a Tarskian semantic theory of truth. The motivating slogan for such a theory of meaning is that "meaning is a matter of truth conditions". Rival slogans such as that "meaning is a matter of verification" or "meaning is use", suggest a second approach. The coherence construction begins with different initial data, geared for example to initial verification and falsification (or assertion and denial), and builds up using a logic appropriate for verification (or assertion or use) to some verificational (or assertional) notion from which meaning can be recovered.

Even less well worked out are coherence theories of morality or evaluation, though coherence methods have enjoyed a revival in ethics under the vaguely specified procedure of *reflective equilibrium*, which is attained by coherence organisation of value judgements and principles with associated beliefs and sentiments (see e.g. TE pp.19-20). Improved elaboration of these theories would cast them into similar form to that devised for truth, stages of construction until "equilibrium" is obtained. But, as the double construction now aims for evaluative *correctness*, the initial data at any stage is different, comprising for instance deliverances from emotional presentation, and the m-c constructions are bound to be significantly different, involving evaluatively certified rules.

An earlier version of this essay of 1986 was presented at the Australian National University, Canberra. Though the occasion hardly ranked as a positive experience, with an active part of the audience reacting with barely disguised hostility to such unrealistic intellectual adventure, still a few worthwhile points did emerge, for which I am grateful. These points, along with several drawn from anonymous commentaries (which unreasonably seemed to expect, what is in any event presently far beyond me, a much more finish theory), have been incorporated into the review text.

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