CHAPTER FOUR

REALISM AND STRUCTURISM AS THE FOUNDATIONS FOR A SCIENCE OF STRUCTURAL HISTORY

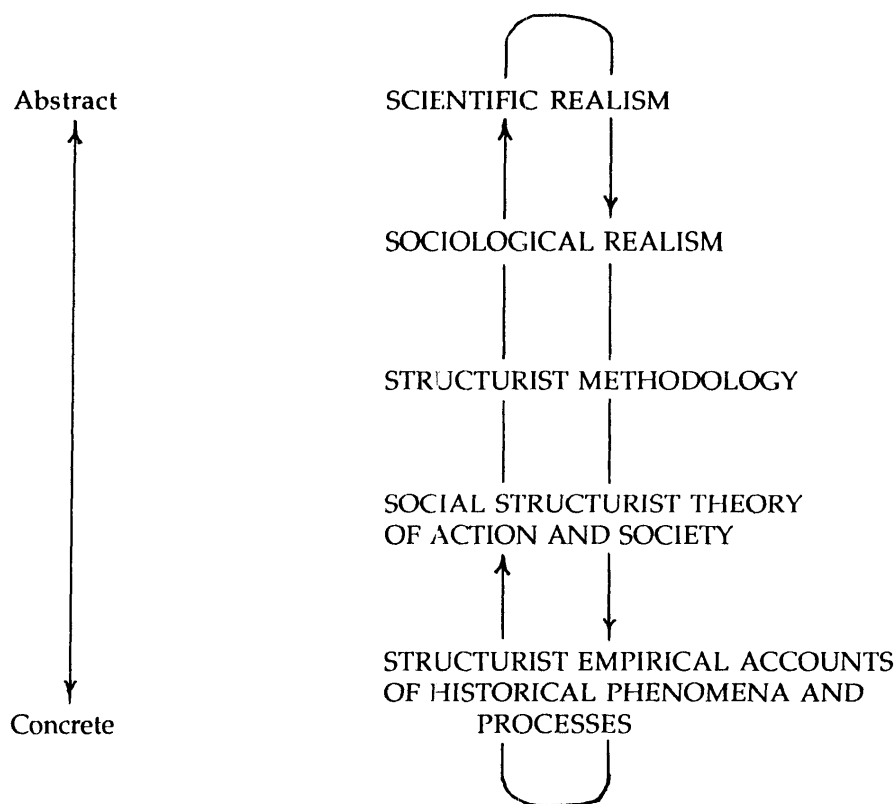● ●

The fundamental philosophical issue that the social studies still face is that of the possibility of objective knowledge or, which is another way of putting it, the possibility of scientific knowledge. However, given the multiplicity of notions of what a science of society and history should be like is there anything to be gained from still discussing it? I believe there is, as I have indicated in Chapters One and Three, because of major advances that have occurred in the philosophy of scientific realism in the past decade or so. In Chapter One, Section II, I argued that realists have convincingly shown that the reasons for the success of science lie in a combination of the implicit use of critical realism, scientific internalization, a reflexive network of reasoning, and the development of theories that are able to analyse the world into its natural kinds, the success of which is confirmed by engineering in open situations.

I   LOGIC OF DISCOVERY VERSUS LOGIC OF ARGUMENT

Realist discussions about social explanation have tried to steer a course among the multiple hazards of common sense, relativism, hermeneutics, structuralism, behaviourism, and empiricism, to arrive at a destination that promises to place social explanation onto a new basis of explanatory strength. This new philosophical basis is intimately bound up with and mutually supports methodological structurism, as I shall argue in this chapter. What gives the argument linking structurism and realism such potential force is that the logic of the *deductive argument* that links them is in a sense the mirror image of the *inductive* logic of the *discovery* of the connection between them. That is, the connection between realism and structurist empirical research that was initially established through a process of discovery that led through successive steps of generalization to greater and greater abstraction ending in philosophical realism can be expressed *post facto* as a series of deductive steps from abstract to concrete, as in Figure 4.1.

Figure 4.1

Abstract

SCIENTIFIC REALISM

SOCIOLOGICAL REALISM

STRUCTURIST METHODOLOGY

SOCIAL STRUCTURIST THEORY
OF ACTION AND SOCIETY

STRUCTURIST EMPIRICAL ACCOUNTS
OF HISTORICAL PHENOMENA AND
Concrete   PROCESSES

The presentation of the argument about the connection of realism to structurist empirical accounts could only come after those accounts had been developed, at least in a rudimentary form to begin with, and subsequently confirmed in methodological and theoretical senses by writers such as Geertz, Ladurie, and Gellner. Structurist accounts could only be made at first, of course, within some prior proto-structurist framework, and we saw in Chapter Three how structurism has gradually developed during a century and a half. All advanced sciences exhibit this sort of history in which successful explanatory methodologies and general theories emerge and crystallise over periods of time, reinforcing themselves as they develop through the ongoing research process due to their explanatory power. It is only later that we can construct the steps in the argument that conceptually links abstract to concrete. That is, the process of discovery was an inductive, generalizing one rather than a deductive one. This chapter presents an argument about the possibility of a science of structural history rather than an account of the process of

discovery of the general concepts and general theories which help form the framework for the science.

II   NATURAL AND SOCIAL REALISM

In order to defend the validity of a scientific approach to social explanation it is essential first to uphold a critical realist conception of the natural sciences as being the best account of what it is about both the world and their methodology that makes them successful and progressive in discovery and application of results in natural situations. Realism can also show how the potential unity of all forms of empirical explanation could be based upon similarities in their objects of enquiry and the structures of their reasoning.

As I indicated briefly in Chapter One, scientific realism generally argues[1] that although particular phenomena can be described and understood in various ways, it is the task of science to attempt to reveal the general, and perhaps hidden, structural features of phenomena, and the mechanisms of their becoming. Science is not on the whole concerned with the unique features of phenomena and entities. Science is concerned, rather, with universals, that is, with the general defining characteristics, modes of being, and causes, of types, classes, and patterns of entities and phenomena. Without a notion of real types of entities (including systems and structures), which have discoverable dispositions, powers, and potentialities, there can be no scientific enquiry because such enquiry consists fundamentally of uncovering such properties and of showing how actual phenomena relate to those properties.

Science operates with a concept of multi-layered depth -- that is, the observable behaviour of entities has to be explained by uncovering the shared nature of those entities, as well as by uncovering the relationships in which entities exist and have their being. Therefore, without a theory of the real and relatively enduring nature of social entities as entities there cannot be a science of society which is not reducible either to a science of individual behaviour or to a hermeneutical study of intentions and actions.

However, realism gives rise to a major problem of epistemic access because it does not remain on the level of phenomena. If it is held that reality is layered and some layers are not available to sense perception, and so must be modelled and inferred from effects before being known , then the question of how we move from our base in the sensory world to

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[1]   See the general account of realist epistemologies in R. Harré, *Varieties of Realism* (1986); and R. Miller, *Fact and Method* (1987).

uncover these hidden layers must be of central concern to scientists of all kinds. The unobservable nature of aspects of physical reality, such as energy, force fields, subatomic particles, and viruses has not prevented scientists from discovering these realities. Similarly, the unobservable nature of the social realities of rules, roles, relations, and meanings is not an insurmountable barrier to scientific knowledge. However, the difficulty of social science is obviously compounded by the impossibility of developing a mechanical gauge of unobservables which is analogous to a geiger counter or a compass. We cannot so detect and measure mental states and never will be able to even if we have a complete knowledge of neurophysiology. The intentionality of actions and the socially constituting power of beliefs and understandings are always going to remain to some extent personal, ambiguous, and opaque to shared knowledge. But as I shall further argue below, society does also have a real and relatively enduring structural existence that can be the object of a scientific enquiry, but one that must take account of expressed understandings, intentions, reasons, and meanings, although not restricting itself to them. Indeed, they must be criticised by science.

Thus realism does not deny the importance of the investigation of common sense understandings, reasons, and intentions, or of emotional and "irrational" motivations for action. They too must be investigated in a scientific manner, using theories, models, hypotheses, and empirical investigation. The employment of a scientific methodology does not entail subscribing to a theory of action as fatally or physically determined. Furthermore, it is not the case that scientific history and sociology must dispense with creative imagination in favour of some wholly inductive or deductive method. Imaginative conjectures, metaphors, analogies, and intuitive leaps seem to be necessary in all empirical enquiry especially for the framing of new hypotheses and models. But they are by no means the only or basic method -- being rather an essential part of scientific enquiry itself.

This is not to say that the different branches of science have an identical structure of reasoning, only that there is a certain basic similarity that unites them as sciences and differentiates them from other kinds of discourse. The strict demarcationists drew the boundary much too sharply but there is nevertheless a distinction worth drawing between science and non-science (even though they shade into each other) on the grounds of attempted objectivity, realism, structural enquiry, and progress of knowledge. In what follows I shall try to present abstract models of science that are not meant to be precise descriptions of actual forms of scientific reasoning but which can serve to show that the study of society and its history are open to scientific enquiry.

III   THE STRUCTURE OF REASONING IN NATURAL SCIENCE

A plausible account of the structure of reasoning in any science must take account, then, of the key problem of epistemic access. How do enquiries into the structures and workings of the physical world proceed? The dominant tradition in the philosophy of science until recent years -- logical empiricism, epitomised by the 1950s and 60s writings of Braithwaite, Carnap, Hempel, and Feigl -- argued that the standard form of scientific explanation ideally conforms to the canons of deductive logic.[2] Deductive inference from covering laws to general causes, combined with knowledge of specific conditions of observable events, should become, it was claimed, the standard form of explanation in all the empirical enquiries if they are to be taken seriously in their attempts to explain their objects. The problem of gaining access to what we wish to know about causation was thought to be a matter of observations of regularities between types of events, the formulation of hypotheses about constant causal conjunctions between those types of events, empirical testing by observation or experimentation, and ultimately the presentations of results as proven laws from which further deductions could be made. Furthermore, for these philosophers there should be a strict separation of theoretical and observational statements. The former refer to hypothetical entities and causes, the latter to discovered and confirmed entities, events, and causal correlations. Theories are not explanations and do not govern observations, which are taken to be epistemologically neutral.

For most empiricists, then, truth was a matter of correspondence with *observable* reality. That is, the senses were taken to be the basic guide to reality so that scientifically aided observation through experimentation and measurement was the ground on which scientific truth was assessed. But for some others, "reality" was a metaphysical notion about which nothing could actually be known. They preferred to speak only of laws, theories, hypotheses, and data and not about truth. Their theories were only instruments for generating and making correlations between data.

Most empiricists were also reductionists in that they wished to reduce supposedly macroscopic entities to their constituent elements and to try to explain macroscopic complexes by laws governing constituent events. Thus for them societies were ideally to be

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2   See R.B. Braithwaite, *Scientific Explanation* (1953); H. Feigl, 'Some Major Issues and Developments in the Philosophy of Science of Logical Empiricism' (1956); C.G. Hempel, *Aspects of Scientific Explanation* (1965); R. Carnap, *An Introduction to the Philosophy of Science* (1966).Logical empiricism is discussed in D. Shapere, 'Notes Towards a Post-Positivistic Interpretation of Science' (1969); H. Feigl, 'Empiricism at Bay?' (1974) and E. McMullin, 'Empiricism at Sea' (1974); F. Suppe (ed), *The Structure of Scientific Theories* (1977); O. Hanfling, *Logical Positivism* (1981); W. Salmon, 'Empiricism: the Key Question' (1988) and 'Four Decades of Scientific Explanation' (1989).

explained as aggregates of individual behaviour and behaviour in turn by psychophysical laws. There was no place in the science of such empiricists for levels of emergent reality of a systemic kind (such as minds and social structures) with their own laws of composition, operation, and evolution, which were not reducible to their physical constituents. Nor was there a place for causal powers of a social relational kind. For the strict empiricists there was no further alternative between physicalist science and dualist and pluralist metaphysics. However some philosophers, such as Karl Popper, who share the deductivism of most of the logical empiricists do not agree with instrumentalism and reductionism nor with the epistemological absolutism of truth and falsity of most empiricists.[3]

I argue that logical empiricists were wrong about the actual practice of science on three main epistemological grounds: logicism, empiricism, and reductionism; and correspondingly wrong about the ontology of the natural and social worlds. Therefore, any argument about the possibility of a science of society which bases itself upon logical empiricism is bound to be misleading. With a better account of the structure of reasoning in natural science the question is reopened.

In developing a better account, the first thing to be clear about is the correctness of the idea that the social studies should look to natural science for philosophical guidance. The empiricist positivists were right about that for one good reason and several bad ones. The good reason was that the natural sciences, particularly physics and chemistry, are more advanced and may have methodological lessons to teach. But the lessons are not those that were drawn by the pseudo-empiricist practitioners in the social studies, such as the cliometricians and some behaviourists, who wished to reduce social phenomena to atomistic events and "explain" those events by subsuming them under psychological covering laws. The first correct lesson is that insofar as science is successful in explaining and manipulating nature both inside the laboratory and in open situations it is because it operates with a multi-layered realist conception of the world. Its subject matter is of two general sorts -- the generative mechanisms of a dispositional kind that are inherent in the composition of kinds of things, and the forces which inhere in the relations between kinds of things. Another way of putting this is to say that the world is an ensemble of powers, propensities, and forces, which inhere in the ways kinds of things are composed, structured, and relate to each other within systems. These powers, propensities, and forces

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[3]   See especially K.R. Popper, *Conjectures and Refutations* (1972) and *Objective Knowledge* (1972).

can be given abstract formulations as laws, but those laws are used to help refer to and explain real complex situations events, and processes. Laws are not descriptions or summaries but without real situations the universal character of powers, propensities, and forces would not exist and would not have been discovered. They do not "exist" in abstract or as Platonic forms or essences but are real universals that exist only in and through particulars. Furthermore, some sciences are not able to formulate *universal* laws but in order to explain particular everts and processes they do require the essential help of lower-level generalisations about causes. It is the discovery of the real powers, propensities, and forces of the world that gives science its explanatory (and in some cases its engineering) power.[4]

Realism also argues that new levels of reality *emerge* from the combination of particulars into systems. Science in fact has to make explanations of causation on several levels without attempting always to make reductions to lower levels. Moreover, if reality is taken to include structural powers of both strictly physical and emergent kinds, then the problem of epistemic access in science is quite different from that as understood by the empiricists. It is not a matter of seeking constant conjunctions of observable events but of modelling hypothesised mechanisms and inferring their necessary existence, within emergent structural systems, from their effects.[5]

Within a domain framework of philosophical and methodological commitments of the sort discussed in Chapter One, science operates with a complex web of reasoning, some parts of which are neither inductions nor deductions. Chief among these non-logical aspects are metaphors, analogies, similes, and models. These are necessary to scientific reasoning because it is constantly trying to move from a base in sensory perception and partial understanding to uncover unobserved and hypothesised entities, powers, systems, and structures. These unknown things have to be thought about in terms of and inferred from what is already known. Therefore metaphors, analogies, similes, models, and so on, must take the place of concrete descriptions and detailed analyses. Such forms of thought

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[4]   This argument draws especially on R. Harré and E. Madden, *Causal Powers* (1975), R. Harré, *Varieties of Realism* (1986); R. Bhaskar, *A Realist Theory of Science* (1975), and *Reclaiming Reality* (1989); and the work of R.N. Boyd and C.A. Hooker (see Bibliography).

[5]   On the significance of the concept of emergence see J. Margolis, 'Emergence' (1986); K.-D. Opp, 'Group Size, Emergence, and Composition Laws' (1979). On the idea and importance of causal powers see R. Harré and E.H. Madden, *Causal Powers* (1975).

all rely upon using what we alreac y know to construct new concepts and provisional models about what we do not know or only partially understand.[6]

This is the creative task of science, a task no less imaginative and creative than that of literature or painting. And like literature and painting, the power of scientific creation depends upon its relationship to that which we suspect, intuitively feel, or know to be the truth, and that may be closely related to its aesthetic appeal. But unlike the arts, science must constantly test and revise its hypotheses to move closer and closer toward uncovering the causal structures of the world. At least that goal serves as a powerful regulator of scientific practice, as Karl Popper rightly argued. [7] It might be argued that the arts also do this in that they too are searching for structural truths of a sort and good art is that which appeals the more strongly to us because we perceive or share its insight. But its methodology is radically different from science. Artistic insight could not have discovered universal laws of nature, for example, which have proven to be counter intuitive. Similarly, the general causal structures of cultures, economies, and societies are opaque to common sense and artistic insight.

So, science and the arts both contain a hermeneutical element because they depend on establishing a circle of agreement between explicit statements within the discourse and the background framework of ideas that are shared by the community of scientists or artists. Furthermore, that background framework helps initially to conceptualise the objects and procedures of enquiry and/or expression.[8] Many defenders of the hermeneutical character of the human and social studies have not understood this necessity for such understanding in the sciences and so have wrongly drawn a distinction between science and the arts on this ground.[9] Nevertheless, the hermeneutical element in science can be

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[6] The relevance of metaphors, analogies, similes, and models for explanation is defended by M. Black, *Models and Metaphors* (1962 ; R. Harré, 'The Constructive Role of Models' (1976); R.N. Boyd, 'Metaphor and Theory Change: What is Metaphor a Metaphor for?' (1979); M. Hesse, *Revolutions and Reconstructions in Philosophy of Science* (1980).

[7] K. Popper, *Conjectures and Refutations* (1972), p. 226.

[8] There is now an extensive literature on the importance of hermeneutics in science, much of it inspired by T.S. Kuhn. See, for example, K.-O. Apel, *Toward a Transformation of Philosophy* (1980) and *Understanding and Explanation* (1984); M. Hesse, *Revolutions and Reconstructions* (1980); G. Markus, 'Why is There no Hermeneutics of Natural Sciences? Some Preliminary Theses' (1987). The collection of articles in L.J. Jordanova (ed), *Languages of Nature* (1986) contains interesting discussions of the cultural contexts and languages of 18th and 19th century sciences as forms of literature.

[9] See, for example, I. Berlin, 'The Concept of Scientific History' (1960); H.-G. Gadamer, 'Hermeneutics and Social Science' (1975) and 'The Problem of Historical Consciousness' (1979).

greatly overstated. Science mu:t move well beyond such circular understanding to a criticism of knowledge and und?rstanding *vis-à-vis* discoverable reality. A central role for the correspondence theory of truth must be retained, as I shall argue in the next section.

I pointed out in Chapter One how scientific theorising and practice operate within a background framework of gene·al problems and questions, concepts, source models, and hypothetical ontologies about the subject matter of the domain, and a general methodology for approaching explanation.[10] Understanding the importance of this framework is crucial to comprehending the partly hermeneutical way in which science operates but it is also importar t to see that frameworks gradually change under the impact of empirical enquiry. (Mo·e on this in a moment.)
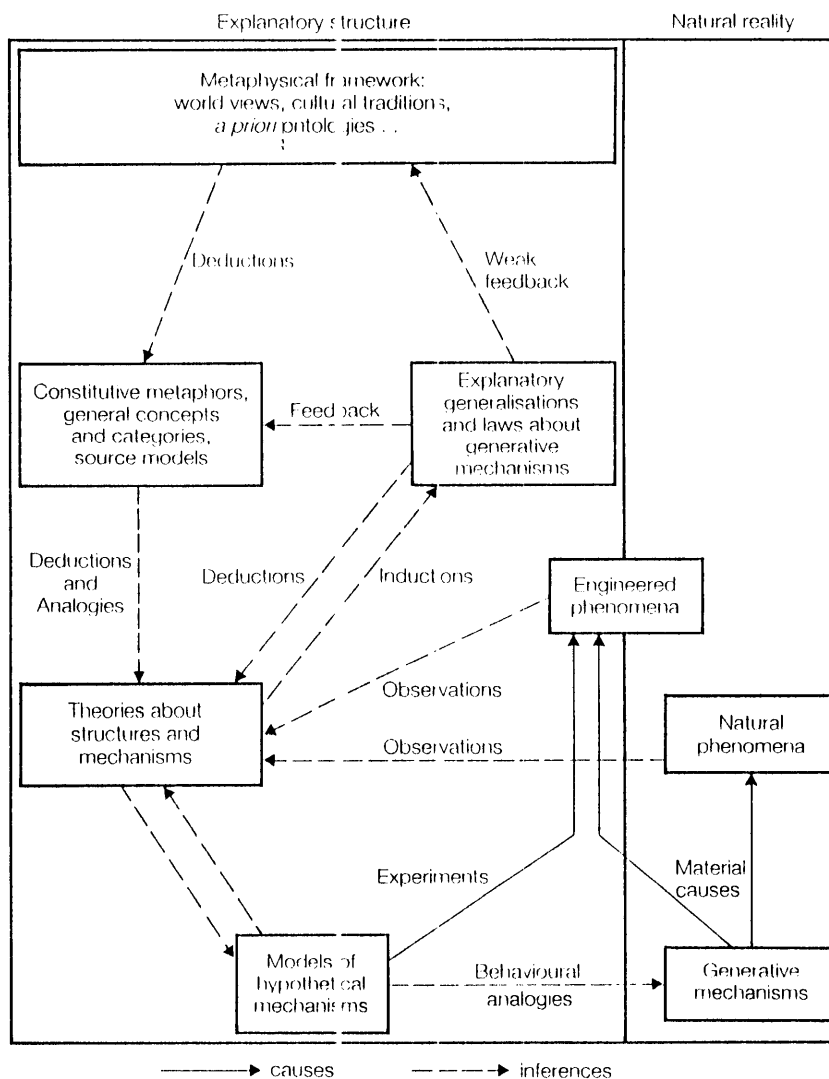
The structure of reasoning in natural science can be modelled as in Figure 4.2. (It and Figure 4.3 are taken from my *E?planation in Social History* and partly draw upon some ideas of Rom Harré.) This diagram attempts to show that science has a complex structure of reasoning that ideally constitutes a coherent network or web of concepts, beliefs, theories, and justified inferences All parts are necessary to the web although some are explicit and some tacit. This web of ideas articulates with the world via observations, experiments, and engineering, which have the power to force modifications to the web.

If the foregoing comments and this diagram are more or less correct about scientific reasoning, then the claims of logicism, empiricism, and reductionism can all be disposed of. Firstly, science does not always operate strictly logically.[11] For example, in the framing of hypotheses about and tentative models of unknown entities, powers, and forces it often proceeds in logically unjustified ways. Sometimes there are intuitive leaps to conclusions which are then used as foundations for experiments and discoveries which can retrospectively prove the correcness of the original intuitions. Logically unwarranted assertions, partially supported hypotheses, inductively justified beliefs, and deductive arguments, are all central components of scientific reasoning. Secondly, science is not empiricist in that it postulates the existence of real causal powers, forces, and structures, which do not and cannot have an empirical form. Causal power is the prime index of

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10   On the importance of background frameworks in explanation see R. Harré, *Varieties of Realism* (1986), Ch 11; M. Hesse *The Structure of Scientific Inference* (1974); I. Lakatos, 'Falsification and the Methodology of Scientific Research Programmes' (1970); and the work of Dudley Shapere, especially 'Scientific Theories and Their Domains' (1977).

11   For criticisms of the deductivist model of science see R. Harré, *The Principles of Scientific Thinking* (1970); M. Hesse, *The Structure of Scientific Inference* (1974).

Figure 4.2 The Structure of Reasoning in Natural Science

Explanatory structure | Natural reality

Metaphysical framework:
world views, cultural traditions,
a priori ontologies . .

Deductions

Weak
feedback

Constitutive metaphors,
general concepts
and categories,
source models

Feedback

Explanatory
generalisations
and laws about
generative
mechanisms

Deductions
and
Analogies

Deductions

Inductions

Engineered
phenomena

Observations

Natural
phenomena

Theories about
structures and
mechanisms

Observations

Experiments

Material
causes

Models of
hypothetical
mechanisms

Behavioural
analogies

Generative
mechanisms

————▶ causes   — — —▶ inferences

reality, not sensory perception, according to the realist account. The world exists and is ordered independently of our perception, which we have discovered through science. Perception has proven unreliable and even misleading as to the deep structural character of reality. And, thirdly, science is not always reductionist in that many forms of science do not seek always to reduce each macro level of reality to its constituent micro elements. Rather, they seek for the emergent compositional structures and laws of systemic entities. All natural sciences, even particle physics, in effect adopt a structural, systemic, and universalist ontology.

IV   THE STRUCTURE OF REASONING IN SOCIAL SCIENCE

How does this account of scientific reasoning compare both with what is and could be the situation in the social and historical enquiries? Clearly, the self-perception of many sociologists and historians is that their enquiries are not and cannot be like the sciences of nature. Many philosophers also see the structures of reasoning in these enquiries as in fact being quite different and necessarily so. But given the account of science I have outlined, could social enquiries be, in general terms, like natural science as just described, if they are not already? (Clearly it's the case that there is and must be a great deal of variation in methodology in the whole field of socio-historical studies.) In fact, much of my answer has been sketched in the previous section where I argued for social realism. But more support needs to be adduced.

The social and historical enquiries should be trying to explain, I believe, three kinds of things: firstly, particular actions and events; secondly, human behaviour in general (including speech); and thirdly, the origins, development, and dissolution (i.e. the history) of the institutions and social structures in which actions, events, and behaviour take place, such as families, firms, organisations, institutions, social movements, kinship systems, classes, and economies. The explanations of these things can be approached in a variety of ways each of which should try to come to terms with the central problems of the reality and effectivity of institutions and structures and the causal interrelationship they have with actions, events, and behaviour.

If the explanation of the history of real social structures is required of all socio-historical enquiries into actions, events, and behavioural patterns, and if those structures persist through time and have conditioning powers, then such an ontology permits, even necessitates, a structure of reasoning similar to but not identical with that of natural science as described above. Social structures as structures of rules, roles, and relations, like

the powers, dispositions, and forces of nature, cannot be directly sensed so perception is no direct guide to their existence and powers. They have to be inferred and studied via their effects. Therefore, metaphorical, analogical, modelic reasoning, amongst other things, is required for their analysis. And social scientific enquiry, like natural science, always takes place within frameworks consisting of ontologies, methodologies, general source models, and general theories, wh ch help conceptualise objects of enquiry and the form of explanations.
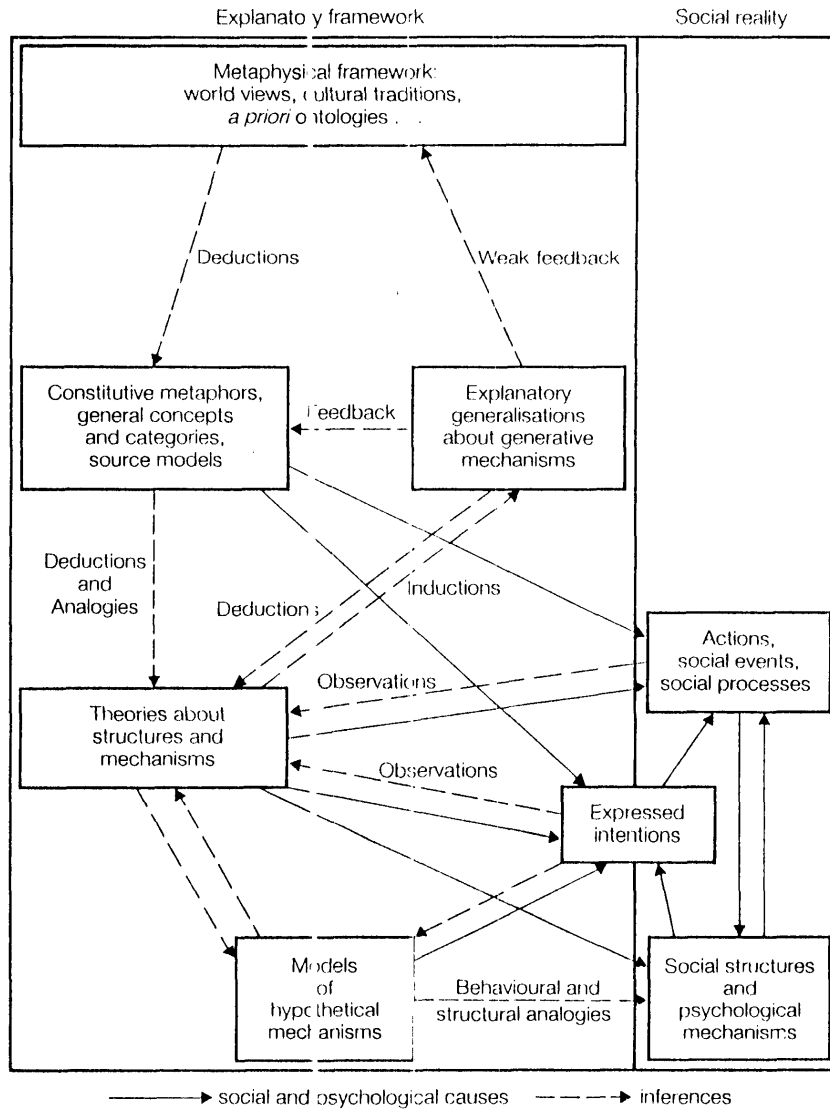
The major differentiating element that separates the subject matter of social from natural science is human intentionality, morality, and meaning. It is a fundamental characteristic of humans that they are agents -- they have intentions, choose courses of action, act to achieve preconceived goals, try to realise plans, at least much of the time -- and they also endow their own acts, goals, relationships, and the world generally, with a multitude of meanings. Part of the background motivation of action are the meaning, symbolic, and moral systems through which people view the world and their place in it. Furthermore, the social world o rules, roles, relations, and behavioural patterns is the intended and unintended produc of individual and collective action over time. Therefore if we are to explain the history and effectiveness of structures we must allude to the roles of meanings, intentions, understardings, and practices in producing them. Structures cannot produce or reproduce themselves. Socially productive and reproductive behaviour is always performed in a context that includes understandings about society and people.

Nevertheless, even with this important complicating element, the reasoning in social science does or should have a structure similar to natural science because of the necessity to explain the causal relationships between general and continuous social and cultural structures, psychological propensities, intentions, understandings, and behaviour. It is the existence of social continuities and generalities that underlies this similarity in scientific reasoning. But it is obviously important to add that the space-time invariance and persistence of social and cultural structures is considerably less than in nature. It is because of the structuring process that occurs in society that the natural science model has to be modified. As Bhaskar and others have shown, our social realism has to be circumscribed in important ways. [12]

Figure 4.3 attempts to summarise this reasoning. Its differences from Figure 4.2 will readily be apparent. In particular, the place of experimentation and engineering has

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[12] R. Bhaskar, *The Possibility of Naturalism* (1979).

Figure 4.3 The Structure of Reasoning in Social Science

Explanato y framework   Social reality

Metaphysi al framework:
world views, cultural traditions,
a priori o itologies . .

/Deductions   \Weak feedback

Constitutive metaphors,   Explanatory
general concepts   Feedback   generalisations
and categories,   about generative
source models   mechanisms

Deductions
and   Inductions
Analogies   Deduction ;

                                                              Actions,
                                                              social events,
                          Observations   social processes

Theories about
structures and
mechanisms   Observations

                                              Expressed
                                              intentions

M dels
of   Behavioural and   Social structures
hypc thetical   structural analogies   and
mecl anisms   psychological
                                                   mechanisms

———————▶ social and psychological causes   — — — —▶ inferences

been taken by expressed intentions. In most natural sciences engineered phenomena straddle the realms of reality and explanatory structure and are in effect the result of an intervention in reality by the explanatory structure. (Of course some natural sciences, especially astronomy but also geomorphology, historical biology, and ecology, cannot conduct experiments into the operations of their systems either. They employ the experimental findings of physics and chemistry but are themselves basically historical and observational sciences.) In social science intentions are the result of cultural, social, and psychological imperatives as well as personal understandings of reality and those intentions in turn have a causal effect upon social reality through the actions that result from them. Obviously, in such two-dimensional diagrams the vital interactive and temporal movements cannot be shown. But the diagrams attempt to model in a simplified shorthand way a complex, multi-dimensional, fluid process.

It can be seen from both diagrams that scientific reasoning has a network of ideas and inferences, all of which are necessary to its existence and all of which are ultimately focused upon the goal of causal explanation of the phenomena of the world. While there is an important complex background framework of ideas for explanation, that framework is ultimately dependent upon its relevance to furthering the goal of increasingly better explanations. The goal of progress in explaining the world is always the ultimate rationale, if not achievement, of scientific enquiry. Nevertheless, it has seemed to many observers that internal coherence between all the parts of the network is an important consideration for scientists and some have held that coherence and problem solving have overridden the goal of progressive empirical explanation.[13] However, this relativist position is ultimately incompatible with the realism that I have been defending so far but it is important to retain something of the coherence notion of truth. Correspondence and coherence must be combined in a convergence theory of truth.

V   A CONVERGENCE THEORY OF TRUTH

It has long been thought by many practising social scientists, especially since Vico's distinction between science and conscience, that the ideals of plausibility and truth in the human and natural studies are quite different. The human studies supposedly operate with a relativist, coherence theory of plausibility, there being no objective external test of validity. On the other hand, the natural sciences supposedly are objective

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13   The work of Larry Laudan has been influential in this regard. See the Bibliography for some of his relevant work.

studies operating with an inter-subjective external test of truthful correspondence of claims and judgements with empirica reality. But much recent work in the history and philosophy of science has had the effect of breaking down this dichotomy and showing how in fact science operates with a notion of truth that in effect combines elements of the coherence and correspondence nc tions of validity. This then also allows the possibility of a closing of the gap between the ideas of plausibility applicable in natural and social science.

The coherence and correspondence notions of truth are philosophically opposed. The coherence notion says in essence that statements or judgements are true or false according to whether they cohere with a system of other statements or judgements. A system of concepts about the world can be said to be coherent because of certain assumptions about the meanings and references of the concepts which together imply each other. Any new concept or statement about the world can then be judged for its truth according to whether it coheres with the system. The correspondence notion says that the truth of statements or judgements or propositions about the world is determined by the facts with which they purport to deal. Agreement with or correspondence with the independent facts is the essence of the theory. There has been a long history of debate about the many complicating aspects of these not ons that need not detain us. Realism by its basic nature subscribes to the correspondence notion because it rests the case for the validity of its statements and judgements about the world on what can be discovered about the world independently of our conceptual frameworks. This obviously contains, at least to begin with, a metaphysical claim about the independence of the world from knowledge of it. But then it goes further to argue that the metaphysical assumption is retrospectively justified by the success of science as revealed by progress in discovery, which comes about because of progress in building theories about the world and means of studying it to reveal its causal structures.

Relativists such as Kuhn and Feyerabend have argued that there is no rock bottom inter-theoretic reference between words and the world such that there can be a gradual convergence of theories on truthful explanations. There has been no genuine progress in discovery according to them.[14] But a line of reasoning stemming partly from Quine and including (in different ways) Putnam, Harré and Madden, Shapere, Boyd, and Hesse,[15]

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[14] T.S. Kuhn, *The Structure of Scientific Revolutions* (1970), and P.K. Feyerabend, *Against Method* (1975).

[15] W.V.O. Quine, *Ontological Relativity* (1969), Ch.5; H. Putnam, *Mind, Language and Reality: Philosophical Papers Vol.2* (1975), especially Chs.1, 13, and 14; R. Harré and E.H. Madden, *Causal*

has cogently shown that although our investigations of both the world and our ways of knowing about it do always have to be made from within particular ways of knowing, there has clearly been progress in discovering the causal structure of the world. People collectively over time have been able to improve their understandings of nature and society and to exert some control over them accordingly. But people do not simply mirror the world in their thought in spite of some evolved isomorphic capacities to do so. Explanations always remain framework-bound. But our frameworks improve through feedback from empirical observation, experimentation, and engineering.

A network account of the framework/theory/observation interrelationship (as represented in Figures 4.2 and 4.3) argues that each part of the network exercises an influence over the other parts. There is a degree of implication between most parts but the network should not be thought of as an integrated paradigm à la Kuhn or as a perfectly coherent system. The lack of complete coherence is crucial for allowing and necessitating scientific change of both incremental and revolutionary forms. This account of science does not collapse into relativism providing we retain the notion of "logical" support for networks of an inductive and analogical kind and empirical support of a probability kind. That is, the network directs empirical research into its subject matter. A body of empirical evidence is gathered from which certain generalisations can be drawn. These generalisations bear upon the usefulness and validity of the models and analogies that are used to think about and gain access to the unknown or little understood entities, powers, dispositions, and forces that are being searched for or investigated. The more empirical support there is adduced for hypotheses and theories, the greater the probability of their validity. There is never an absolute correspondence with reality, only increasing degrees of plausibility regarding empirical claims. Empirical evidence has the power to force alterations to parts or all of the network. As Mary Hesse has pointed out, in this network model of scientific reasoning,

science retains its empirical basis, because the criteria of learning the correct use of descriptive terms in the natural language are empirical, and the self-corrective feedback process depends essentially on recognition of the success or failure of empirical predictions. The account therefore retains also the essentials of the correspondence theory of truth, but without the assumption of a stable observation language unpermeated by theoretical interpretation. The view of truth is, however, also essentially instrumental, since it derives from situations of prediction and test, and its relation to theories is indirect. Since he thesis of under-determination of theory by data is built into

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Powers (1975); D. Shapere, *Reason and the Search for Knowledge* (1984) and other works; M. Hesse, *Revolutions and Reconstructions;* and R.N. Boyd (all works shown in the Bibliography). See the discussion in my *Explanation in Social History,* Ch 7.

the model the sense in which "trut\" can also be predicated of theoretical frameworks remains undetermined.[16]

Thus the correspondence a\d coherence notions of truth can be combined by retaining realism. While this account do\s remove the possibility of a timelessly true objective basis for knowledge it does res: on the idea that in the mature sciences at least most analytical descriptions of kinds of entities according to what has been discovered about their causal structural properti\s are correct although particular descriptions within systems of classifications and p\rticular referential meanings may be false. Neurath's famous raft metaphor[17] can be adapted to express this: we float on a sea of sensory evidence on a raft of concepts and descriptions whose planks we replace one by one as we go. There is no particular set of planks that has to be retained throughout but we must always retain sufficient within the correctly ordered structure of planks to "survive". Thus we never escape the networ< of coherence conditions but we do add to and gradually alter it. All the while we do actually remain afloat on the sea of facts because of the basically correct assumption that our understandings of kinds of entities, powers, and forces do correspond correctly to the way the world is. But there is still much to learn, of course, especially about how entities interrelate in systems. However, this degree of progress has not been achieved in the immature sciences. The powers, structures, and dynamics of persons, cultures, and societies are still little understood and so we still lack reliable rafts.

In all mature sciences, then, discovery is a result of, firstly, the coherence of networks of reasoning, which produce concepts, analogies, models, and hypotheses about the entities and processes under study, and, secondly, a correspondence between existential claims and evidence. What courts as evidence and how it is assessed is always strongly influenced by the network but evidence has a degree of neutrality and the potential, therefore, to force changes in the network and usually, sooner or later, to decide disputes between competing theories. There has been a gradual, jerky, convergence between coherence conditions of networks and their degree of correspondence with reality. In short, as Hesse put it,

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[16] Hesse, *Revolutions and Reconstructions*, pp. xvi-xvii.

[17] Neurath's metaphor is referred to by W V.O. Quine in *Word and Object* (1960), p. 3.

that the truth-value of an observation statement is relative to coherence conditions is a matter of epistemology, but the concept of truth that is presupposed is a matter of ontology. That is, of a relation between existents.[18]

Thus both hermeneutics in the sense of shared understandings about basic meanings, references, and classifications; and the provisional objectivity of references to structural reality; are necessary to science.[19] The philosophical, cultural, and social embeddedness of scientific reasoning should not be denied but neither should the history of its successes. Those successes are not the result of empiricism but of the (tacit?) adoption of realism and the possibility of truthful explanation as basic regulators of scientific practice.[20]

VI   REALISM AND STRUCTURISM – THE IMPORTANCE OF MANDELBAUM'S CONTRIBUTION

Powerful support for the argument that realism, in both the philosophical and sociological senses, and a theory of the role of human choice and agency, are crucial to constructing a scientific domain for the explanation of structural history can be found in the work of Maurice Mandelbaum. An examination of his contribution is helpful in developing this position. He was one of the most consistent and determined defenders of philosophical and social realism and of what he called "methodological institutionalism", which contains a theory of human agency and a theory of how the social world comes to be institutionally structured, that is, a structurist theory. In a very important series of works stretching across fifty years he continually, and with remarkable consistency, criticised empiricism, relativism, individualism, and holism, as well as the notion that there should be a strict separation between analytical philosophy and substantive theorising and research.

Mandelbaum's Defence of Social Realism

Mandelbaum's defence of social realism was developed through a series of works from the late 1930s onwards.[21] In his first book of 1938 on *The Problem of Historical*

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[18]   Hesse, *The Structure of Scientific Inference* (1974), p. 57.

[19]   This idea plays a central role in Lévi-Strauss's argument in *The Savage Mind* (1966) and is defended by Hesse in *The Structure of Scientific Inference* and *Revolutions and Reconstructions*.

[20]   See Popper's cogent defence of this idea in *Conjectures and Refutations*, Ch 10.

[21]   Mandelbaum's main works on the philosophy of explanation are listed in the Bibliography, which is not meant to be a definitive list of his works and does not include many of his writings on moral philosophy.

Knowledge he defended a rather simplistic version of historical objectivity on the basis of empirical realism. In the 1950s he improved on this by arguing for the irreducibility of social concepts and the necessity of scientific social laws for social and historical explanation.[22] Irreducibility does not mean that society is independent of all human beings, only that references to social as well as to psychological influences are necessary for both behavioural and social explanation. A sensory perception theory of knowledge is unable to provide an explanation of non-phenomenal social causes, and methodological individualism is ruled out if reduction to psychology is impossible. The denial of reductionism and individualism does not imply holism, as I have emphasised and as Mandelbaum was at pains to explain. Society, in his view, is a set of semi-autonomous institutions rather than an integrated organic whole with a single law of functioning. Psychological and intentional explanations are required, as much as are sociological ones, for social structures and processes.

The form and role of laws in explanation became a central issue in all branches of philosophy of explanation in the 1950s and 60s following the work of Karl Popper and Carl Hempel. Their argument was that the deductive covering-law model of scientific explanation was the only viable one for all explanatory disciplines, including history and sociology. Unlike the relativist and hermeneuticist critics of the relevance of covering laws, Mandelbaum's position was that there should not be demarcations between scientific, historical, and sociological explanation.[23] Rather, they should indeed be epistemologically united but on the basis of a conception of causation and laws different from that propounded by Popper and Hempel and the logical empiricist tradition. Rather than seeing laws as statements about universal sequences of constant conjunctions of events, he argued that scientific laws are statements about "uniform connections between two types of factor which are contained within those complex events which we propose to explain."[24] He rejected the logical empiricist theory because it cannot explain natural or social events due to its failure to distinguish invariant *sequences* of events from actual *causative conditions* for events. It attempts to deduce the causes of events from laws whereas historical realism attempts to *discover* them within the structure of the complex systems of which they are part. The real causes are the necessary and sufficient conditions of events. Those conditions include the natures and states of particular systems and

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22 M. Mandelbaum, 'Societal Facts (1955), and 'Societal Laws' (1957).

23 Mandelbaum, 'The Problem of Covering Laws' (1961).

24 *Ibid.*, p. 57.

structures and the law-like generalities governing their internal structures and functioning. All causal explanations require such realist, abstractive, generalities, as he argued earlier in regard to history.

Mandelbaum's most sustained defence of critical realist philosophy of explanation and attack on empiricism was made in *Philosophy, Science, and Sense Perception* (1964). Critical realism is also called scientific realism because it is a philosophical description and defence of the actual presuppositions of practising scientists. As I argued earlier in the chapter and as Mandelbaum and many others have also argued, science builds upon and goes beyond common sense descriptions and understandings of the world to try to uncover hidden properties and structures beneath phenomena. The core problem here is of perception, which many philosophers have seen as an epistemological problem only. Mandelbaum rightly saw it as a scientific problem, i.e. of how to move from perception to reality because some of the perceivable qualities of objects have been found to be unreliable guides to structural properties. This is not a rejection of all perception for that would lead to a senseless world (literally and epistemologically) but a criticism of common sense perception in terms of discoveries of the more important aspects of objects. Thus common sense experience is not abandoned but criticised by science so that through the two perspectives a detailed knowledge of the nature of objects is developed.

The relationship of critical realist philosophy to methodological and sociological structurism, although implicit in some of Mandelbaum's earlier work, was not properly argued for by him until his last book, *Purpose and Necessity in Social Theory* (1987), which I shall discuss in a moment. In his earlier criticisms of methodological individualism and holism he defended a position that he termed "methodological institutionalism". In this, social institutions, which make up the structure of society, require *sui generis* sociological "laws" as well as psychological "laws", in conjunction with knowledge of the actual conditions of the specific human behaviour and events that bring institutions into being and transform them. (The question of the relationship between this institutionalism and structurism will be discussed in a moment but on the face of it they seem to be very similar.)

Mandelbaum on Causation and Truth

"Structurism" and "institutionalism" in both their methodological and sociological conceptual forms rest upon a particular concept of social causation. Mandelbaum argued[25]

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[25]   Mandelbaum, *The Anatomy of Historical Knowledge* (1977).

that the causes of events are not separable antecedent events but the complex structure of functional relations that are the conditions that gave rise to the event. They are often not prior to the event but coterminous with it. The role of laws or other weaker generalisations is not to provide an explanation by themselves. That is, making a causal explanation is not a matter of deducing it from a causal law. He said that

to give a causal analysis is to trace an ongoing process that terminated in the specific effect we wish to explain; this involves describing a particular set of interconnected occurrences. In formulating a law, on the other hand, one is concerned not with a particular effect, but with an effect of a specified type; the object is to show on what factor or factors an effect of this type always depends. [26]

That is, laws are not about regularities of sequences of events or even of types of events but are about types of factors within complex structures and processes.

There is a continuity between simple crude generalisations from everyday experience, through law-like historical and sociological generalisations, to invariant scientific laws. Generalisations are necessary to all causal explanations but they are not explanations in themselves. In the socio-historical studies they serve as useful tools with heuristic rather than precise explanatory power because no truly lawful basic propositions have yet been established, the attempts of historical materialists, structural-functionalists, and structuralists, notwithstanding.[27] Generalisations include views about the nature of persons, the nature of society, and the factors affecting social stability and change. Their role is "to help explain why two or more independent series of events that intersect at a particular place and time produce the results they do".[28] But

it is on the basis of the connections inherent in the evidence with which historians work that they can propose concrete causal analyses of the events with which they deal...It is not, then, on the basis of general laws that causal connections are authenticated; it is on the basis of evidence as to what actually occurred. [29]

This brings us back to realism and the correspondence theory of truth. Why sociological structurism needs such a realist theory of causation can now begin to be seen. If society is an ongoing process of institutional structuring through patterns of behaviour the explanation of social events and processes must employ a causal theory that attributes

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[26]   *Ibid.*, pp. 97-8.

[27]   *Ibid.*, p. 123.

[28]   *Ibid.*, p. 182.

[29]   *Ibid.*, p. 193.

patterned behaviour and institutional structuring to the pre-existing and coterminous social systemic historical process it self. Causation is neither external to the system nor a sequence of types of events but the concrete interaction of real psychological, cultural, and social forces present within particular societies. Precise general laws of behaviour and social processes are desirable but not available. Less precise generalisations, especially about particular social systems, are necessary but not sufficient for historical and sociological explanation.

Mandelbaum on Purpose and Necessity and the Philosophy/Theory Connection

Mandelbaum's book on *Purpose and Necessity in Social Theory* (1987), which draws together, summarises, and updates some of the aforementioned themes to present a synthetic argument that encompasses the history and methodology of social theory, is worth examining in more detail for what it can offer my defence of structurism and the scientificity of structural history.

The book is an outstanding demonstration of the potentially close connection between philosophy and fundamental social theory because the methodological argument rests upon and reinforces the general conception of social reality. His general social theory in turn is inspired by his philosophical commitments to realism and the correspondence theory of truth. Thus there is a coherent *circle* of reasoning, as shown by Figure 4.4.

Figure 4.4   The Circle of Mandelbaum's Philosophical Coherence
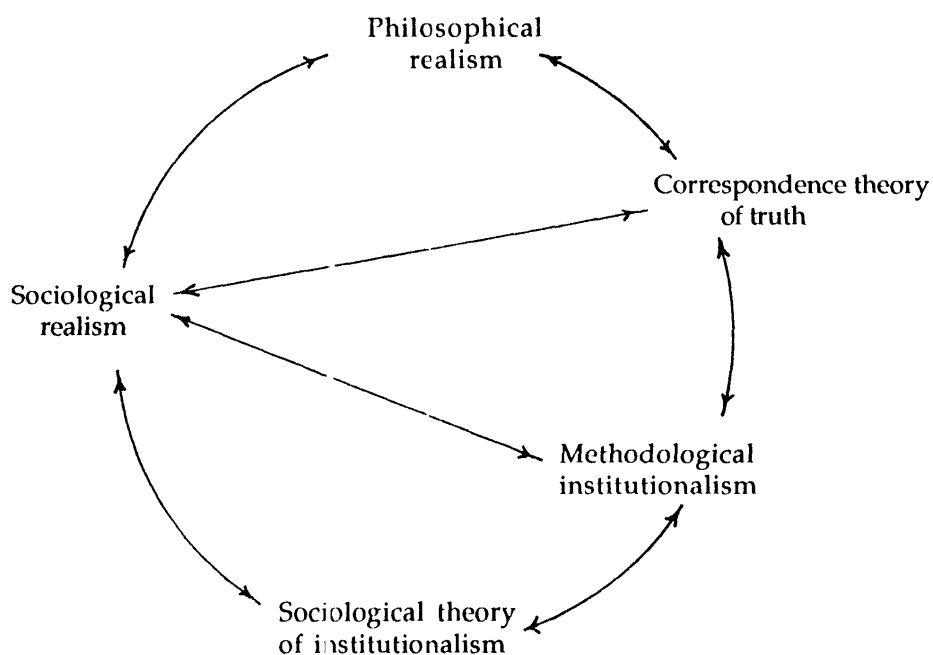
Six closely related themes cɛn be identified in Mandelbaum's book, which together help to constitute this circle of reasoning. I shall briefly say something about how he treated each of them before going o 1 to discuss a little more extensively and in more general terms the questions of social reality, truth, causation, and change. In this way we can begin to evaluate his arguments for real sm and structurism, toward which all of these themes contribute.

First is the defence of the importance of philosophical and methodological criticism. All social theories conta n presuppositions of a normative and theoretical kind. The latter tend to take the form of pairs of opposite categories, such as "purpose" and "necessity", "individualism" and "holism", and "psychologism" and "historicism". These presuppositions play important but often hidden methodological and substantive roles in all social explanation. The task of analysing social thought is to uncover them and show their influence. This involves recourse to philosophical criticism of epistemological and ontological kinds. That is, he saw ittle distinction between epistemology, ontology, social philosophy, methodology, and fundamental theory. Philosophy therefore has a critical and continuous role in aiding social explanation.

Second is the demonstration of the pervasiveness of the three pairings of categories or concepts of "individualism"/"I olism", "purpose"/"necessity", and "chance"/"choice" throughout the history of social theory. It is clear following Mandelbaum's revealing discussion that these dichotomous concepts, together with a few others such as "realism"/"instrumentalism" and "reedom"/"determinism", constitute the deep structure of social theory. That is, all social theorising has employed some combination of these concepts as its presuppositions or foundations. He argued that they have been understood as related to each other in a particular way which can be represented in Figure 4.5.

Figure 4.5 Mandelbaum's View of the Pervasive Dichotomies of Social Theory
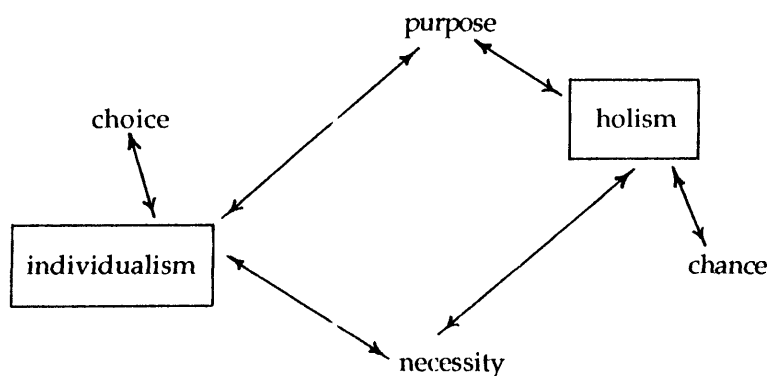
In Figure 4.5 each of the arrows shows the alternatives apparently open to a social theorist who starts with any of the six concepts, particularly with individualism or holism, which have been the basic concepts of society. For example, if a holist conception was seen as basic then there were supposed to have been three alternative possibilities (necessity, chance, or purpose) available explanatorily to support the presupposition of holistic reality. That is, social wholes arise and exist either as a social necessity due perhaps to human nature, or due to chance happenings, or because of teleological purposiveness. Similarly, individualist explanation has been open to three alternatives -- necessity, purposiveness, and choice -- but construed in different ways from the holists. That is, society is a collection of individuals who relate to each other because of their individual psychological drives and needs, or their inherent purposiveness as social individuals, or their conscious choices.

The *third theme* is the criticism of the legitimacy of these dichotomies. The argument is that these polar opposites are false and rather than having to choose between each pair, as social theorists have been doing for three centuries, they should be trying to combine them in various ways without obliterating them in order to explain social reality. The reason for this comes from the nature of social reality itself, which cannot be explained except by using *all* the categories of "individual", "whole" (in the sense of institutional structure), "purpose", "necessity", "chance", "choice", "psychology", and "history". (But "purpose" and "necessity" have to be interpreted in non-teleological and non-metaphysical ways.) Therefore, his argument about the correct relationship of the concepts can be shown by Figure 4.6. As this implies, his argument about the categories therefore rests on his ontological theory of social reality and causation, to which the categories have to correspond adequately.

Figure 4.6   Mandelbaum's Synthesis of Categories
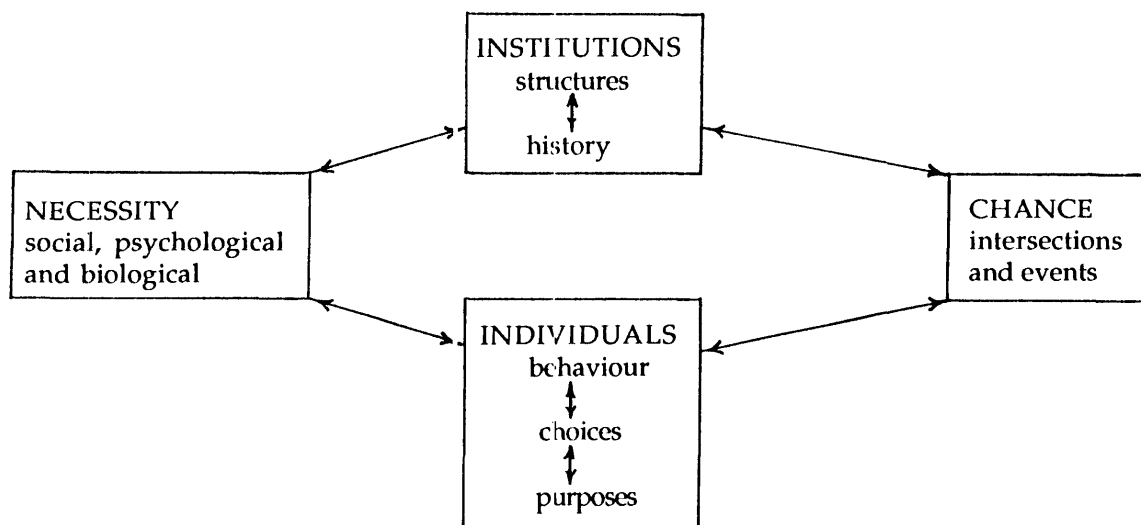
So, the *fourth theme* is the theorisation of social reality. This takes two parts -- an argument for the *sui generis* reali'y of society as distinct from behaviour and culture, and an outline of the universal fa‹:tors in all social organisation. Against the early individualist tradition that began with Hobbes, which identified society with groups of individuals as individuals, he said that

the characteristics on the basis of wh ch societies are to be identified are various patterns of learned behavior to which persons occupying different positions in a society, and playing diffrent roles in its activities, are expected to conforn . It is these normative patterns themselves, and not the individuals who behave in accordanc∍ with them, that must be taken into account when one wishes to describe the nature of a society anc what constitutes its essential parts. However, those who have searched for what have been called "⅃ock bottom" explanation in the social sciences have held that it is only in terms of individual behavior that the nature and functioning of a society can be understood. In short, they mistakenly treat social organization as a by-product of individual behavior, not as a major determina⅂t of it..... It has been widely assumed... the basis for such explanation is to be found in one ‹)r more universal and unchanging characteristics of human nature. That assumption has most often been challenged on the ground that there are no such characteristics, but my objections tc it lie elsewhere. I reject it because any explanation of the nature and functioning of an actual y existing society cannot be concerned solely with whatever characteristics may be common to all persons. Of themselves, such characteristics could not explain the very different forms of be⅂avior expected of individuals living in different societies.[30]

The holist alternatives are equally unattractive, whether they be the organic type, such as developed by Herder, Hegel, Burke, De Maistre, Savigny, and Ranke, or the institutionalist type developed ty Comte and Marx. The organic holists viewed each nation and period as an intuit vely grasped whole and did not attempt to analyse historically the components of cultures and societies to explain the origins and character of different institutions. The institutionalist holists did attempt to do this in order to establish universally applicable lɛws about social structure and change.

Individualism was revived in the late 19th century and in recent decades attempts have been made to conflate indiⅴidualist and institutionalist approaches under the guise of the "behavioural sciences". t was partly because Mandelbaum saw no important tendency to reject this conflatio‹1 (a view which ignores much recent work in Britain, France, and Germany by, for example, Giddens, Abrams, Elias, Touraine, and Bourdieu) that he wrote his book. Whilɛ neither pole is satisfactory their obliteration is also unsatisfactory. There must be rɛtained a distinction between "what can be explained in terms of psychological concepts and whal must be explained with reference to the societal context in which individuals acⁱ".[31] When it is society that has to be explained rather

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30   Mandelbaum, *Purpose and Necessity*, p. 9.

31   *Ibid.*, p. 20.

than behaviour it is the structure of rules governing institutions that have to be studied. He wrote that

> Every social institution involves a patterning of relationships among individuals: if their behavior were not to a large extent regulated by commonly recognized rules, so that each person had a notion of what was to be expected with respect to the actions of others, there would be no institutions and no organized social life. Since one cannot speak of institutions without speaking of rules according to which individuals behave, it would seem that we should regard societies simply as a congeries of individuals who behave in a certain way. This, however, would be a mistake. For example, the rules defining the nature of a game are not identical with the behavior of those who play that game: they play *according to the rules*, and the rules are not simply summary statements of how they actually behave. This is clear every time a foul is called in a game, and every time an individual breaks a law, committing a crime. It is therefore a mistake to think of society in terms of the actual behavior of individuals, even though it is clear that were it not for the existence and activities of individuals, the society would not exist. That the individuals themselves are not to be considered the elements constituting a particular society becomes evident when we consider what is involved in describing a society: we proceed by describing its various institutions and their relations to one another, rather than by referring to the individuals who participate in its life. ... Conversely, when we describe any individual, we do not simply describe his physical appearance, his capacities, his character and temperament, but we also refer to his status within his society. [32]

Are there fundamental principles or rules governing institutional origins and structure? That is, is there a deep structure to social organisation, limiting its possibilities? Many social theorists and historians (notably Marx, Weber, Radcliffe-Brown, Parsons, and Althusser) have claimed there are, seeking them in the nature of people or in the needs of social systems as organic or structured wholes. Mandelbaum's proposal was to seek for the requirements of society as an organisation analysed in terms of a number of different psychological, biological, and social *factors* rather than as the needs of a system as a whole. Thus it would attempt to uncover what is functionally essential if people are to live together in organized social groups.[33] This is not to say that people can live without society. Social organization is necessary to human life and even the life of some animal species. The socially functional necessities usually reinforce each other but this does not mean that they lead to society being an organic, coherent, and stable unity

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[32] *Ibid.*, p. 151.

[33] The two basic functional requirements of any social structure Mandelbaum saw as being communication between members and differentiation of roles in terms of gender and division of labour. In addition there are five other social factors that are universally present in human societies. Firstly, there is a kinship system that governs such things as marriage, family life, clans, and residence. Secondly, an economic system governs the production and distribution of goods. Thirdly, there is class and caste differentiation, which is closely related to the division of labour and the economic system. Fourthly, a form of group control exists, including a governmental system and a system of morality, customs, and authority. Fifthly, there is a belief system, including religion, magic, science, and political ideologies. In addition to these necessary social factors in all social organisation he identified two other kinds of necessary conditions that must be present in each society if it is to survive: it must meet the needs of a large number of its members, and its institutions must be compatible with each other. *Ibid.*, pp. 150-151.

because chance and choice play i nportant roles, and these universal requirements are not always met.[34] This is crucial for the explanation of social change, as we shall see in a moment.

The *fifth theme* in the book, which follows from the third and the fourth, is the relationship between sociologica , psychological, and cultural, explanations. He rightly wished to keep all these rela ively distinct because of the relative autonomy of behaviour, culture, and social structure. Society is the institutionalised rules of behaviour and not behaviour itself. Nevertheless, to explain social organisation the motivations of behaviour have to be explained and that in turn involves some reference to social organization because individuals and their behaviour are shaped by society as well as by their innate nature. So, psychc logical and social explanation are both necessary but separate tasks.[35] Similarly, culture is distinct from social institutions. Culture includes such things as languages, technology, customary habits, and systems of belief. These are transmitted from person to person by imitation and example. Institutions, on the other hand, define the relations, status, and roles of people. Obviously culture and institutions overlap but Mandelbaum saw the basic difference being that institutions and not culture define the social position of people and regulate their behaviour, obligations, rights, and privileges. Culture and society are not only different in character but also not coterminous. Thus society cannot be studied through culture, consciousness, or behaviour but *must be studied in itself.*[36]

This is a very significant argument because there are strong tendencies in psychology, sociology, anthropology, and common sense, to conflate these three kinds of explanation or at least to try explanatorily to reduce social structure to one or other of culture, behaviour, or social mores. Mandelbaum argued convincingly that society is to be understood neither as a system of beliefs nor as a pattern of behaviour so it cannot be studied through them alone. Nevertheless, social study requires attention to both of them. Going beyond behaviour and cultural/ideologial perceptions are crucial steps for social science if it wishes to uncover interpersonal structures of institutionalised rules, roles, and relations that may not be well understood by the actors that inhabit them.

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[34]   *Ibid.,* pp. 92-6.

[35]   *Ibid.,* pp. 21.

[36]   *Ibid.,* pp. 24-26.

Nor can the social sciences do without history. This is the *sixth theme* of the book. All social explanation involves the (usually tacit) use of generalisations about basic principles of economic, political, and social life in conjunction with knowledge of specific conditions. How these generalisations are developed is obviously an important question. As Mandelbaum rightly pointed out, unfortunately it has been abstract analysis rather than attention to history that has been the main way ever since sociology was founded. Marx was an early conspicuous exception because he derived theories of social formations from empirical enquiries. All science needs descriptions of particular events and their conditions and all descriptions need generalisations so the ideographic and the nomothetic elements need each other. There is always going to be a tension between concepts that are ahistorical and the fine distinctions between even very similar social structures. Historical explanation needs sociology and psychology and sociology needs historical data.[37] Why a society is the way it is can only be answered historically,

and its history will have been channeled by necessity and by chance, as well as by the choices of individuals who, at specific times, learned what they did learn and made the choices they actually made. [38]

Now we are at last in a position to see why Mandelbaum believed the categories of "individual", "whole", "purpose", "necessity", "chance", and "choice", are all necessary to social explanation and therefore why the pervasive dichotomies must be broken down. The doctrine of individualism cannot account for the social conditioning of behaviour just as that of holism cannot account for the origins and history of institutional structures. Studies of the causal interaction of behaviour and institutions as relatively separate levels of social existence are required for explanations of both behaviour and institutions. Thus we can defend a conception of the social totality as being a structure of institutions rather than a supra-individual metaphysical entity. But his institutionalist methodology, which rightly rejects the poles of individualism and holism, is not fully translated into a *theory* of social causation and social change. That is, in the terminology I have employed earlier, he has only hinted at how methodological institutionalism might be translated into a *sociological* structurism that can develop an account of the genesis of history of structures.

How institutions arise and change is one of the main things that structural history should be attempting to explain. Part of the explanation involves giving due weight to the necessary universal requirements for social organization, for satisfying human needs, and

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37   *Ibid.,* pp. 32-33.

38   *Ibid.,* p. 166.

for internal social consistency. This kind of necessity is not the same as metaphysical determinism. Such a complete determinism would rule out chance and choice in human affairs. Necessity operates, rather, at the level of essential structural conditions, which set the parameters for behaviour and institution building, and not at the level of causation *per se*. The denial of metaphysical determinism does not imply that events are uncaused, only that some events are chance events in the sense that they result from a coincidence of different, independent, lines of causation, particularly of an institutional kind, which could not have been predicted. Neither does such a necessity rule out human purposive choice, within the constraints imposed by institutional structures and human personalities. Individuals vary and so therefore does their power to influence society. Purposiveness does not have to imply teleology in the holistic, metaphysical sense, but operates at the level of individual choice and behaviour. Individual behaviour is teleological in the sense of being goal-oriented, and some institutions may also be so, but social systems cannot be so.

VII   BASIC ISSUES FOR A SCIENCE OF STRUCTURAL HISTORY

The argument of the *Purpose and Necessity* book and the totality of Mandelbaum's work support the contention that in the task of developing scientific socio-historical explanations three basic iproblems are equally important, the answers to which should *conceptually reinforce each other*

- the problem of social reality and truth,
- the problem of social causation,
- the problem of social change.

Each of these bears directly upon the others such that if a particular socio-historical theory is constructed primarily on the basis of a particular approach to one of them it should *ipso facto* more or less completely determine what *consistently* can be said about the others. Thus if a theorist begins with an explicit or tacit concept of social reality it should greatly constrain what then can be said consistently about causation and change. However, it is unfortunately the case that not many social theorists, sociologists, economists, or historians have fully grasped this synergy. In what follows I want briefly and very generally to try to establish why all three issues are equally basic for structural explanation and how they should conceptually reinforce each other.

VIII   THE PROBLEM OF SOCIAL REALITY AND TRUTH

Much of Mandelbaum's *Purpose and Necessity* is about the age-old methodological problem of defining social reality. Wherein does the social lie? Is it inherent in the mental and physical nature of individual people -- some sort of impulse to be socially co-operative in complex and meaningful ways? Or is it the extra-individual sets of relationships of manifold and overlapping kind that people are born into, which mould their lives, which they simply reproduce and perhaps transform, but which have existed since time immemorial and have a life and history of their own? Is it meaningful at all to even envisage humans apart from society? Are sets of social relations, if they really independently exist, more or less unchanging systems or are they fluid, shifting, and manipulable? Do social structures in fact have any rigidity? Perhaps social "reality" is a mental construct -- a set of beliefs, norms, and understandings about how people should act and interact and which therefore determine how they do. Such mentalities may even be little or not consciously understood by those who carry them. Perhaps "social reality" is a misnomer because its "construction" may be a result of each person's social theory or lay understandings.

In any case, three things seem indisputable. First, society, like nature, is multi-dimensional and multi-faceted and which dimensions and facets are seen and discussed are partly a matter of choice, of social position, and of social insight. Social (and natural) scientists cannot explain everything at once because societies are not unitary entities although there can be greater or lesser degrees of generality in analysis. Levels and aspects of analysis have to be chosen. Second, societies and cultures change and so do social theories and understandings. The fact that all of these have shown a persistent if variably paced tendency to change as well as a degree of continuity should make us at least very cautious about absolute and universal social concepts. Third, human understandings of behaviour and society help to constitute behaviour and society. Therefore social understandings and theories have been an important contributor to the nature of social reality itself over time. But one must be careful not to commit the genetic fallacy of confusing the observer's understanding with the causal social process. Societies are the institutionalised aggregate products over time of a host of beliefs, needs, choices, behaviours, accidents, and already existing social and physical environmental influences so that the understanding that particular persons have at a particular moment cannot at that moment be the constituting cause of what the observer is observing and reflecting upon. Holist and individualist conceptions of social reality are untenable because they are unable adequately to explain observable social phenomena as the outcome of this complexity of causes.

As I have argued, a powerfully persuasive tradition in philosophy of explanation, exemplified in differing ways by Mandelbaum, Quine, Hesse, Putnam, Boyd, Harré, Shapere, Bhaskar, Salmon, and Hooker, has shown how the task of empirical enquiry is to criticise and explain the appearances of the world by reference, through the use of conceptual frameworks and theories, to the underlying unobservable causal structures which inhere in and help generate the objects and phenomena of the world. This approach sees no essential difference in principle between the philosophical foundations of explanation in the natural, social, and psychological sciences. Cultural explanation may well require certain important differences of foundations but even there it is not a question of a fundamental gulf between it and science. Given this argument, the correspondence-realist theory of truth in the convergence form I have advocated above cannot be avoided by those who seriously wish to explain the causes of observable human behaviour, utterances, and products.

When examining the issues of realism and correspondence, the most important questions for us are "correspondence with what?" and "how do we assess the truth of a correspondence claim?". That is, what is the reality that social concepts, theories, and explanations supposedly correspond with and how can we be sure of this words-to-world relation? After all, references to and ideas about the world can only be made via ways of thinking about the world. There is no extra-world standpoint -- no cosmically neutral position of omniscience.[39] The core of the answer given to these questions by the physical and most biological sciences is provided by experimentation and engineering. The validity of natural science explanations s constantly tested, at their margins at least, in open, natural situations. Truth claims in those sciences are ultimately validated (provisionally at least) by a correspondence relationship between knowledge claims and the success of interventions in and observations of natural situations beyond the laboratory control and intellectual consensuses of scientific groups and institutions. Truth is not claimed to be absolute but, as Karl Popper has cogently argued, we go only so far into the realm of the hitherto unknown as is presently possible and is required to support our present arguments and claims. Scientific theories are not simply true or false but provisionally so and always against a background of real-world testing.[40] A *policy* of realism and correspondence,

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39 This is the consistently argued view of Dudley Shapere. See also the interesting discussion by Ernest Gellner in 'Tractatus Sociologico-Philosophicus' in *Culture, Identity and Politics* (1987), Ch. 11.

40 Cf K. Popper, *The Logic of Scientific Discovery* (1972), especially Chs. 5 and 6.

rather than an absolute claim about such, drives a scientific mode of enquiry and proof. A gradual increase in scientific understanding of reality is thus confirmed in an incremental, constantly refined, and pragmatic fashion.

Of course many natural scientific understandings and theories remain untested in any direct sense and are the subject of tacit agreement and convention. Nevertheless, as I argued earlier in this chapter, natural sciences are total but loosely integrated *networks* of theories, knowledge, reasoning, and institutional arrangements, which depend ultimately on applications in and observations of uncontrolled natural situations and stand or fall in part, and as networks occasionally, on those ongoing applications and observations. Repeated failures of experiment, engineering, and prediction lead to rejection of part or all of the body of theory and knowledge on which they rest. In this way discoveries are built up in a jerky progression. Without success in the crucial tests of precisely-controlled open-system applications the validity of the science would be in doubt because its correspondence relation would be in doubt. The external reality of the natural world is thus confirmed by the ability of engineers and scientists to manipulate the world successfully in preconceived ways and by the power of the external world to prompt changes in our ways of understanding it by its failure to conform to prediction. There is an inter-causal relationship between theories, experiments, and observations. (Of course precise scientific theory is not necessary to engineering of a more primitive kind as the buildings of ancient and medieval societies reveal. Nevertheless, even there some at least tacit mechanical theory was necessary.)

Such an argument about the role of experimentation, engineering, and prediction does not well apply to social science No special kind of scientific theory and research is necessary consciously to manipulate social institutions and to "engineer" enduringly the social world, at least in a broad, ameliorative sense. Although unscientific social interventions have many more unforeseen consequences than do more precise scientifically inspired ones, they all have that character to some extent. (This is also true of natural science.) Rather, what is required for social manipulation and creation is social power and a degree of social insight and, unlike the power of physical engineering, power and insight rarely if ever spring from scientific knowledge. They come instead from some combination of individual personality; position within social groups, institutions, and hierarchies; access to and control of information; control of the apparatus of institutional power; and control of the symbolic and cultural sources of legitimacy. Social scientific knowledge can aid institutional construction but general social structures are not the outcome of controlled, conscious, engineering. Rather, they are the result of complex historical processes without

a teleological subject. The task for social science, then, is to try to grasp the full complexity of those processes. *Post hoc explanation* rather than prediction, control, or engineering, is therefore the prime aim. Some natural sciences, such as cosmology, geology, evolutionary biology, and ecology, have a similar aim in that they too attempt to explain the historical developmental processes of large-scale systems that are beyond scientific experimental control as systems. To develop explanations they employ knowledge from experimental sciences as well as observation and theory.

How can we know that our explanations correspond with the reality of historical social processes if we are denied experimental and engineering tests? Social realists at their best provide a complex answer containing the following mutually reinforcing elements. None of these elements is of much value apart from the others. First, the basic ontological premise is that causal power is the prime index of reality so that social structural reality has to be inferred from its effects on behaviour, production, and speech. Second, attention to the history of socio-historical theories and research programmes shows that they have grown in conceptual complexity and methodological richness over the past three centuries. Since society and its history has been revealed, by the use of these methodologies and theories, to be a complex, dynamic structure, this is an essential symbiotic development if theory is to be adequate. Third, there has been a steady accumulation and tabulation of data from documentary and other material sources about past and present societies. Fourth, data is assumed to be largely (but not entirely) theory-neutral and so can be used cautiously to test rival theories. Fifth, social theories have grown in precision and testability as the amount of usable data has grown. Sixth, there has been a gradual convergence in the meaning and reference of concepts and theories between rival schools of explanation. Mandelbaum's book demonstrates this to some extent both in what he expressly says about different theories and how his argument converges with those of many others whom he does not mention but about whom I shall say a little later.

This argument and studies in the history of science together support the contention I made earlier that "truth" is not an absolute but should be seen in more pragmatic terms as the growing plausibility that results from a gradual *convergence* between our philosophical/methodological frameworks, our theories, our hypotheses, and data. Coherence between all of these is highly desirable but never fully attainable. Truth is neither just a matter of conceptual and theoretical coherence nor of empirical correspondence alone. The intersection between, or networking of, lines of conceptual, theoretical, and empirical reasoning is the site of the greatest plausibility within

networks of scientific thought which refer to but separate themselves from external reality.[41]

So, notwithstanding the differences in forms of and degrees of validation between different forms of empirical explanation we are still justified in speaking of a science of society. This is so because of something more important that all forms of science share and which basically sets them apart from non-science. As I have tried to indicate, what makes a science a science is not its form of validation but the structure of its reasoning, its policy of realism, its notion of epistemological convergence, and some version of the correspondence-realist concept of truth.

The phenomenological tradition in social explanation rejects the idea of an objective, discoverable social reality and the possibility of a convergence between methodologies, theories, and empirical explanation. It claims that social concepts, understandings, and explanations are essentially contested. There is apparently no way in which we can translate social understandings into some meta-language of concepts and data in order to analyse, compare, criticise, and judge their validity. This is not the same as saying that social science is simply immature and will develop a meta-language or paradigm at some future date. That possibility is ruled out by phenomenologists on ontological and epistemological grounds. The basic premise here about the fundamental nature of society is that society has not fundamental nature! Rather, societies are phenomenologically constituted by actors through their understandings and behaviour. There are no social data that are theoretically or culturally neutral. So, in order to study societies the particular interrelationships between behaviour, utterances, understandings, and culture have to be investigated. That requires a hermeneutical method of reasoning and enquiry. There is no rock bottom explanation possible.

However, such an approach has to come to grips with the powerful argument advanced by Mandelbaum and others in defence of the objectivity of patterns of observable behaviour and cultural forms that in turn rest upon certain factors that govern the persistence of certain kinds of institutions within and across cultures, societies, and milieux. The meanings, local understandings, and significance of these patterns and factors may be in doubt but phenomenological social theorists cannot do without some at least tacitly adopted structural or institutional notions about languages, beliefs, and customs.

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[41]   On the convergence concept of truth, or something like it, see H. Putnam, *Mind, Language, and Reality*, Ch. 13; M. Hesse, *The Structure of Scientific Inference*, Chs. 1 and 2.

All social groups and organisations, as such, are held together by *shared* languages, beliefs, customs, experiences, and institutionalised patterns of behaviour. Actors' understandings are not necessarily a good guide either to their existence or effects. However, it is important to agree with the phenomenologists to the extent that actors' understandings do have collectively a socially constituting role over time and that every individual is therefore a social agent to some extent. But this does not deny the reality of societies as structures of rules, roles, and relations, which must be studied. As Mandelbaum argued at length, society exists independently of every individual's perception, understanding, and behaviour but not of the totality of behaviour and beliefs of all those within it.

IX   THE PROBLEM OF SOCIAL CAUSATION

As we have seen with the problem of reality and truth, analysing social causation involves a nest of problems. There is the philosophical problem of causation in general -- of what it means to make a causal statement or a causal explanation. That is, what sort of relationship is believed to exist between supposed cause and effect? Is it sequential, conditional, structural, or something else? There is the problem of the extent to which social causation is like that of nature. Is the causal structure of society completely different from that of natural systems and events or is there an underlying similarity? What is it that analyses of social causation have to explain -- behaviour, culture, structure, structural change, or all of these? What are the causal relationships between human action, culture, structure, and social change? Is social structure perhaps epiphenomenal -- the merely apparent but non-existent result of human thought and behaviour? We must distinguish therefore between general concepts of causality and causal attribution, on one hand, and theories of social causation, on the other.

There are at least four general concepts of causation. First, there is the metaphysical idealist concept which asserts that the phenomena of the universe are the products of or emanations from an omnipotent being or some such final cause. In order to know about such causation divine revelation must be received and/or human contemplative reason employed.

Second, there is the empiricist (or Humean) regularity concept, which is based on the idea of causation being a matter of constant conjunctions of events. Events are taken to be the causes of subsequent events and the universe is characterised by discoverable regularities between types of events. Only events can be studied within this approach so

empiricists have to disaggregate and reduce processes into what are taken to be their constituent chains of events. Just how universal laws of the sort "Bs are always caused by As" are arrived at is a central controversial question for empiricists.

Third, the functional/teleological/consequential concept says some types of events and processes are caused by their own (expected?) consequences through some sort of feedback relation. In this case these events and processes are goal-directed so that goals are causes. An obvious difficulty with this approach is how to discover what the goals are and how they influence events and processes.

The fourth concept is the realist structurist and dispositional approach which sees relational structures and internal dispositions as the causes of phenomena. Things and processes are said to occur because of their natures to behave in certain ways and to influence other things in certain ways depending on their actual structural interrelations. Causal laws are statements about structures, dispositions, relations, and processes, rather than events. Events and processes are always structurally located, conditioned, and caused, so they cannot be isolated from structural complexes. Here the central problem is one of epistemological access to structures if observable events are not taken to be the causes of other events.

Within these general concepts of causation we can identify five particular theories of social causation. Firstly, there is emanistic holism, which says that society is an emanation of a super social force. Secondly, the empiricist regularity theory says that social causation, like natural causation, is a matter of antecedent events. Human behaviour, whether individual, patterned, or grouped, must ideally be explained by prior environmental and neurophysiological events, such as decisions. The most radical and reductionist version of this theory rejects the idea of the existence of irreducible social and mental structures, which instead are taken to be the merely epiphenomenal products of brain processes. The result is an atomistic and behaviourist social theory. Less radical versions would concede the existence of irreducible psychological states and drives and see them as the fundamental causes of individual behaviour.

Thirdly, an intentionalist theory of social causation gives the central role to the conscious and intentional states of individuals and their culturally conditioned ways of understanding. This is also a form of individualism but here the individual is the conscious and cultured source of motivation, understanding, and social interaction. Society is not something that can ever have an independent, causally powerful existence apart

from individual and shared understandings about it and the behaviour that they motivate. Understandings play the prime causal role so the problem for social explanation is to investigate human consciousness and intentions and their cultural roots. Culture here is the idea of historically developed shared belief systems, customs, and languages. The task for investigators within this theory is a hermeneutical one -- to understand understandings and intentional behaviour.

Fourthly, there is functional and structural holism, which claims that social events and processes are caused by the r systemic relationships within tightly integrated social systems. The parts of the system are subordinate to the whole and are governed by their dedication to reproducing and maintaining the system. Obviously such causation can only operate within historical, social, and engineered systems and it depends crucially on a teleological mechanism. While there is no doubt that much human behaviour is indeed goal-directed, the basic problem for this approach is of how to establish that social systems as systems do have holistic, autonomous, and goal-directed characters.

Fifthly, there is the structurist and institutionalist theory. Here equal emphasis is given to the powerful structuring role of individuals and groups and the conditioning role of institutional structures to mould behaviour and consciousness. People are the prime agents of society. They have dispositional (including teleological) propensities to behave in certain ways, as well as conscious intentions. Their behaviour is therefore taken to be the result of a combination of causes -- psychological dispositions, intentions, social structural and ecological imperatives, and conscious rational and irrational choices. Society as an integrated structure with conditioning power is the outcome of these forces over time but there never has been a time without society.

I have been defending with the help of Mandelbaum a correspondence-realist notion of truth and a structurist theory of social causation. Therefore the task of explanation is to uncover the real causes of the origins and history of behavioural patterns and institutions within the complex contemporary and pre-existing social structural conditions for behaviour and institutions. That is, social causes are not sequential chains of events but social conditions in the form of structural complexes. They have to be abstractly analysed into their parts to find the relations of cause and effect but these relations are never singular and rarely linear. Social events rarely have pre-existing events as their efficient causes. And causal analyses should not be attempts to reduce social structures to supposedly independent components because those components are not in fact independent. Neither are they deterministically related. All this makes virtually impossible the *accurate*

measurement of the causes of social events (and even more so of processes) and their presentation in the form of precisely specified functional equations. Correspondingly, it reinforces the hermeneutical component of social explanation. Observation, measurement, and interpretation must all play a central role.

X   THE PROBLEM OF SOCIAL CHANGE

Given the argument so far about the categories of social enquiry, we should look for the basic source of social change in the conflict between social necessity and individual attitudes and choices. Necessity's role is in setting basic requirements for a structure's existence in that every society must satisfy the conditions mentioned in Section VI above. These also establish the limits of what is possible. That is, institutions must together satisfy the physiological and psychological needs of many individuals and be mutually consistent. If they fail in either of these ways their existence is in jeopardy. Change thus comes about because sufficient numbers of individuals are dissatisfied or find themselves in stressful, conflictful, situations due to the incompatibility of institutions and are able to do something about altering their situation. People begin to evade their institutional responsibilities or reinterpret them in ways that result in institutional change.[42] That is, the rules, role, and relations governing choices and actions are ignored and altered.

Why situations emerge that cause conflicts between institutional structures and individual attitudes and actions can be a result of both chance and choice. Changes in the physical environment -- climate, ecological, epidemiological, for example -- can be important chance events. The choices of powerful individuals and groups can have far-reaching consequences -- planned and unplanned. Furthermore, each institution has to some extent its own history and these histories intersect at unpredictable points and with unpredictable results. History is not a continuous stream leading up to the present. Rather, as Mandelbaum wrote, we should see the past as "a highly complex reticulated network in which the history of each society will to some degree be independent of the others".[43] The cross influences between them are often a matter of chance. Similarly, the choices of individuals intersect with some degree of chance and have intended and unintended consequences. There is an important distinction relevant here between freedom of choice and freedom of action. The first does not imply the second. The ability and power to act

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[42]   Mandelbaum, *Purpose and Necessity*, p. 154.

[43]   *Ibid.*, p. 157.

upon choices varies with social role, personal power, and institutional constraint. They are also constrained by history, which is a further form of social necessity. That is, the past constrains the present in that it cannot be undone. The present institutional structure is a result of past processes and so what is possible in the present is constrained by what happened in the past. Moreover, change itself always necessitates further adjustments. Thus, wrote Mandelbaum,

adjustments that take place in order that a society may better satisfy one or other human need will create a situation which could threaten the stability of the society if those adjustments are not offset by changes in some other institutions that had been affected by them. Yet, once such adjustments have occurred, a new situation will have emerged, and any future actions will have to take account of that situation if they are to succeed. Thus, insofar as individuals are in a position to bring about some change in social organization, the choices they make will have many unforeseen consequences. [44]

In the final analysis, then, it is human needs and actually existing institutional and environmental conditions that are the parameters of the choices and actions of socialised individuals in bringing about new institutional arrangements. Social structural necessity, chance, choice, and individual purpose, all play a role.

Within these parameters many developments are possible which will lead to social change. The balance between necessity, purposiveness, chance, and choice, is highly variable. But such a set of parameters cannot possibly be studied with methodological individualism and holism. Individualism denies any role to social necessity and holism denies any role to individual choice and purposiveness. There have of course been many general individualist and holist theories of social change developed down the years. Against these, a structurist approach leads to the denial that there can be a valid general theory of social change which is trans-historical or even trans-societal. Rather, all theories of social change can only legitimately refer to historical and contemporary social structuring processes within *particular* societies. But there is a (perhaps unavoidable) tension here between *theories* (or laws) of change in *specific* societies and *general concepts* about societies and forces for change within all societies. Theories cannot do without general concepts because theories by their nature contain generalisations about classes or types of events, structures, and processes. There is an essential role for general concepts and theory in making socio-historical explanations of specific cases.
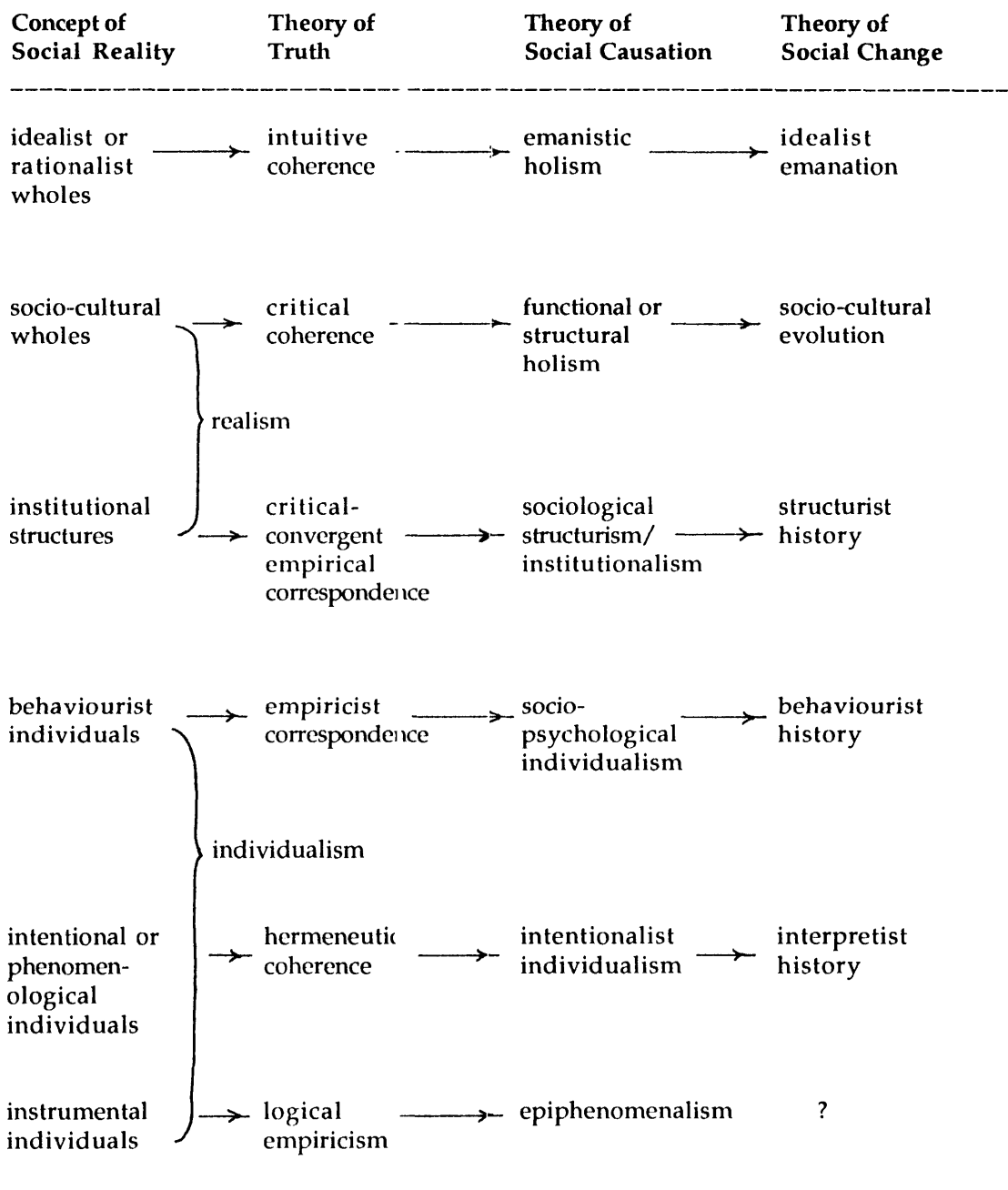
However it bears repeating that theoretical generalistions are not themselves explanations. This common confusion bedevils all the sciences, especially the social and

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[44] *Ibid.*, p. 168.

historical sciences. It leads to what has sometimes been called "theoreticism" -- the employment of general, *a priori*, rationalistic, theoretical pronouncements about societies and their histories instead of careful empirical enquiry. Often in sociology and history the gulf between theory and empirical enquiry is so great as to lead to mutual incomprehension and sometimes to the hurling o' what are meant to be condemnatory epithets such as "empiricism", "positivism", 'historicism", "structuralism", and "theoreticism". Fortunately, this gulf is beginning to close and in much work now, especially in economic and social history and in historical sociology, there is a close mutual dependence of theory and empirical enquiry, although many of the theories are inadequate. Mandelbaum's book is an important contribution to showing why and how this should occur. He also shows that the diverse history that social theorising has had is partly a consequence of the failure of many theorists to pay sufficient attention to empirical historical work as a source of and testing ground for generalisations. This is a philosophical failing, traceable back to, amongst other things, a failure to adopt a correspondence notion of truth. Without some version of that there real y is not sufficient check on the rationalistic, abstract system-building tendencies of social theorists.

Now we can return to where at the end of Section VII it was said that answers to the three problems of reality/truth, causation, and change, should conceptually reinforce each other. I think that now we can see how that should happen. Figure 4.7 attempts to sum up the discussion of the last three sections, rearranging the concepts employed there and in Figure 1.2 of Chapter One to show their conceptual implications. Of course this does not mean that the correct implications are always drawn.

Figure 4.7   Streams of Conceptual Implication

Concept of Social Reality	Theory of Truth	Theory of Social Causation	Theory of Social Change
idealist or rationalist wholes	intuitive coherence	emanistic holism	idealist emanation
socio-cultural wholes	critical coherence	functional or structural holism	socio-cultural evolution
} realism			
institutional structures	critical-convergent empirical correspondence	sociological structurism/ institutionalism	structurist history
behaviourist individuals	empiricist correspondence	socio-psychological individualism	behaviourist history
} individualism			
intentional or phenomen-ological individuals	hermeneutic coherence	intentionalist individualism	interpretist history
instrumental individuals	logical empiricism	epiphenomenalism	?

The institutionalist/structurist stream offers itself as the only viable way forward fundamentally because of its synthetic theories about structures and empirical evidence about action, behaviour, and events and the effects of institutional structures upon these. The strength of such a combination (which is not a syncretism) of psychology, sociology, economics, anthropology, and history, has begun to be widely understood in the social sciences in recent years but the extent of this sharing itself has not yet been well understood.