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EXPLANATION IN HISTORY

by

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A.

As specialists in time related changes historians have a proprietary interest in explanation for, in an important sense, all explanations are historical explanations. If we want to know why somebody is angry or why a wire conducts a certain charge of electricity, the explanation has to take a historical form. There has to be an antecedent condition and a subsequent consequence - i.e. a statement about how one thing leads to another. And this, though not always an exhaustive explanation, is the minimum requirement for a historical narrative.

Thus the historian, when it comes to explanations, is in a privileged position, for to a large extent all explanations are historical explanations. Whether one is doing physics or psychology, sociology or history proper, cosmology or neurology, a great deal is explained when one can point to a short historical sequence of events which stand in an explanatory relationship to one another. In this way a historical explanation is a good explanation and when one can show up a historical sequence in physics or sociology, one has explained something. The historian's privilege consists in the fact that such a recourse to history is built into the notion of explanation. The physicist and the psychologist, the sociologist or the cosmologist has no comparable privilege. If he wants to argue that a psychological event is explained by recourse or reduction to physics or a biological event by reduction to chemistry, he has to do a lot of special theorising to make his claim good. The historian needs no special theorising. All he needs to do is to show that an explanation is a historical explanation in order to have physicists and cosmologists, psychologists and biologists eat out of his hand. This privileged position does not depend on reduction but on the mere presence of

the time factor.

B.

Having said this, we have not solved anything but merely opened up a problem. What, indeed, is a historical explanation? When we are doing history - and we are doing history when we are discussing physics or psychology - what counts as an explanation and what form ought an explanation in history take? An explanation in history is not to be confused with an explanation of the past. An explanation in history presupposes that somebody has transformed the totality of past events (*res gestae*) into one or more narratives of the sequence of select events (*historia rerum gestarum*). An explanation in history is therefore always an explanation within a narrative and should never be confused with an explanation of History. History as a totality of all events of the past is something we cannot conceive and are not aware of and a non-entity which is not in need of an explanation.

C.

I would like to suggest that we must make the following requirements of an explanation in history:

1. Any explanation offered must be criticisable.
2. The explanation must remain within the context of the matter to be explained, unless a special theory is offered why a reduction to a different context is helpful.
3. The explanation must make one see that what happened had to happen; or, at least, contingency has to be played down.
4. The quality of an explanation depends on its width, i.e. on the range of its explanatory power. Hence we must

in all cases give preference to a model of explanation which can be applied to cases in which human beings are involved as well as to cases in which non-human entities or phenomena are involved.

5. Any ontological committment must be minimal. An explanation which requires a strong ontology pre-empts the explanation.
6. In history an explanation which explains change or which implies change is preferable to one which does not.

I do not claim that these four requirements are exhaustive. They merely represent a minimum list and even so it is conceivable that an explanation model is useful or acceptable if it fulfills only two or three of these requirements.

D.

It is impossible within the scope of a single paper to present and evaluate all arguments about explanation in history. I will therefore present the outlines of the problems in the form of summary assertions - something like *Thesen* in German - and refer for full discussion and argument to support my conclusions to my *The Shapes of Time*, (Middletown 1977). The present paper should be taken as a *Referat* rather than as a contribution to the subject.

Let us begin with a list of explanation models which are either used or advocated for employment in history:

1. Reductionism - which states that in order to explain, we must reduce the phenomenon to be explained to a different level of phenomena. For example, it is claimed that a given form of government is explained when it is shown that it is consequent upon certain climatic conditions and that changes in forms of government can be explained as changes in the climate.
2. Historicism - which states that there are developmental laws which govern the succession of all events and that one can explain a phenomenon by locating it in the series of events governed by a developmental law. For having located it, it becomes immediately obvious that it had to succeed what sent before and had to be followed by what came after.
3. Colligation - which states that all phenomena are colligated or linked in temporal sequences and that if one can plot one's way from one event A to the next event B by minimising the temporal gap between them,

one goes a long way towards explaining B. It is often admitted by advocates of this model that such an explanation is not exhaustive and that in plotting forward in this manner one can only hope to "abate the mystery", as one of its famous propounders put it. (M. Oakeshott, *On Human Conduct*, Oxford, 1975, p.106). According to this strategy, one explains as one plots the course of events; or, history is its own explanation.

4. Empathy - which states that one can explain an action or a performance if one can enter into the mind of the author or agent and re-live the state of mind which existed when the performance was made.
5. Unmasking - which states that explanation consists in showing that a phenomenon is not what it purports to be or what its author professed but that, since its author always had something to hide, it is something else. Explanation is an exposing of the real condition the professed condition was designed to veil or disguise.
6. Historism - which states that every constellation is a unique individuality. (I am using the word "historism" to label this position because it was so labelled first by some of its upholders. Unfortunately through a series of literary accidents and confusions the German word *Historismus* is often rendered in English as "historicism", a word which should be reserved for a different position,

that is, for the view that there are developmental laws which govern temporal processes.) Historism is based on a famous maxim by Goethe: *individuum est ineffabile*. This maxim was taken up by a whole school of historians and led to the formation of the view that there is a special kind of science called *Geisteswissenschaft* to deal with individual constellations which cannot be classified and which show no regularities in their behaviour. Eventually special, mostly dubious, methods were devised in order to achieve a special *geisteswissenschaftliches* understanding. The maxim asserts that there can be no science of individuals and therefore no explanations. The position to which this maxim has given rise is diametrically opposed to all notion of the unity of science. The maxim itself, though based on an important truth which among other things also forms a corner stone of Darwin's theory of evolution, obscures an all-important fact about the nature of individuality. Every individual, consciously or unconsciously or non-consciously is capable of making abstractions so that in spite of the undeniable reality of individual differences, it is always possible to make abstractions which enable one to observe regularities and to classify so that individuals, without ceasing to be individuals, can arrive at explanations about themselves or about each other which are based on generalisations.

As a historical curiosity it is interesting to note that the influential school of *geisteswissenschaftlicher* non-explanation derives from such a misconception of individuality and not from any argument about the fact that history deals with human beings who have minds or mental contents which are as such not accessible to outside observers. The hard core of *Geisteswissenschaften* with their ineradicable bias against explanation consists in a misconception of individuality, not in the appreciation of the privacy of mental contents. This is high-lighted by the fact that in *Geisteswissenschaft* one purports to do idiography and steer clear of nomothetical pursuits.

7. Employment of a covering law - which states that an event is explained when it is shown to follow from another event with the help of a general law. In the terminology of Karl Popper, the first explicit proponent of this model of explanation, an event is explained when it appears as a prognosis deduced from an initial condition with the help of a general law. The general law establishes the initial condition as the cause and the prognosis, as the effect. This model of explanation can be used for events with human beings and without human beings; it covers nature and society; conscious and non-conscious

performances; planned and non-planned events and is applicable to events which are caused as well as to events which happen because people willed them. It can be applied in the natural sciences as well as in the social sciences.

Explanations by covering laws are always nomological and deductive. For further discussion and elaboration of the details of the laws and the deduction involved, I refer to the classical paper by C.G. Hempel, "The Function of General Laws in History", *Journal of Philosophy*, 39, 1942; W. Stegmüller, "Historisch genetische Erklärungen" in his *Problems und Resulate der Wissenschaftstheorie und Analyse*, Berlin, 1969, Vol. I; and R.H. Weingartner, "The Quarrel about Historical Explanation", *Journal of Philosophy*, 58, 1961.

The list of strategies may not be exhaustive and the strategies listed are not necessarily exclusive of each other. Colligation and historism are often used together; unmasking and reduction often go hand in hand; and the covering law model is tacitly used in colligation and historicism. But for the sake of discussion I have listed them separately.

E.

To start with, it is helpful to state how Napoleon's invasion of Russia would be explained by the seven strategies.

1. Reduction: Tolstoi in *War and Peace* reduced the invasion

to an episode in the flux of population from west to east and east to west.

2. Historicism: There is a developmental law which states that empires expand until they burst. Napoleon's invasion of Russia was an event which had to take place just before the final bursting.

3. Colligation: The mystery of Napoleon's invasion of Russia is abated if one can locate it temporally immediately after the next preceding event and that event, immediately after its predecessor, and so on.

4. Empathy: Napoleon's invasion is explained if one can locate by empathy what went on in Napoleon's mind as he was giving orders for the preparation of the invasion.

5. Unmasking: The invasion is explained if one can show that it was nothing but a diversionary manouvre to distract attention from a domestic political or economic crisis in France.

6. Historism: There is nothing to be understood. Napoleon and his armies are a unique historical constellation following an inner law of their own.

7. Covering Law Model: Depending on the macrocity or microcity of the narrative, one will find covering laws which state that dictators will lash out when cornered; or that men seek glory by conquest; or "when a system of continental economy against England is in force, statesmen will seek to make it more perfect", etc.

The next task is to evaluate the strategies.

1. The reductionist model is obviously of very questionable value because it operates always by taking us into a different context. This is not necessarily wrong. A great deal of chemistry can be explained in a reductionist way by recourse to physics and a lot of biology can be explained by

recourse to chemistry. But in all these fruitful cases, the reduction is not in itself the explanation. In these cases, the reduction is only explanatory because the validity of the knowledge to which the phenomenon to be explained is reduced is established independently. When it comes to attempts to employ this model in human history and where it is suggested that forms of government can be reduced to climatic conditions, we are on very shaky ground for our knowledge of climate says nothing that could be linked to forms of government. We are in this case simply invited to accept a reduction as an explanation without a possibility of seeing whether there is something in climate which would make this particular reduction plausible. This case is very different from the case in which chemistry is reduced to physics. In the physics case, the reduction is almost coincidental. It so happens that our knowledge of atoms enables us to predict all sorts of chemical phenomena. Hence the reduction of chemistry to physics is helpful to chemistry because it enables us to predict chemical events with the help of physical laws. Not so with climate and governments. Here we have nothing in our knowledge of climate to enable us to predict forms of government likely to occur in a given region with a certain climate. We are simply expected to consider a certain form of government "explained" by the reduction to the occurrance of given climates.

The poverty of reductionism is also highlighted by a different example. It is in theory possible to reduce all social events in a given region to the laws governing the behaviour of the molecules of which the members of a given society consist. Here reduction, however, is not at all a helpful explanation because it would simply amount to a dissolution of the intelligible phenomena of social life and leave us with the laconic insight that molecules are as

molecules do even when they happen to appear in the shape of social agents. The poverty of reduction is further underpinned, when one considers reduction in the opposite direction, from physics to history. One can explain the strength of an electric current historically by referring to a magnet revolving inside a coil of wire. But a reduction to history which states that the presence of the electric current is explained because somebody started the magnet turning inside the coil in order to amuse a child does not explain the strength of the current. Whatever is thus added to the explanation, the mere reduction by itself is not as such explanatory.

Lest it be thought that grand reductions are no longer in fashion, we should recall that Kuhn's philosophy of science is a reduction. Kuhn considers that changes in paradigms are explained when it can be shown that they are reducible to sociological changes in the personnel of scientists.

Finally, a reductionist strategy does not explain at all because it leaves the explanandum as a totally unintelligible event and places the whole burden of explanation on the intelligibility of the subject the explanandum is reduced to. Kuhn. for example, leaves the history of paradigm changes as a completely unintelligible series of changes. The historical sociology of scientific communities, on the other hand, is intelligible and the history of paradigm changes becomes intelligible only in so far as it is made to appear as nothing but the historical sociology of scientific communities.

2. The historicist model is not only poverty stricken. It is based on the fallacy that we can speak of a law when all we have is a series of events.

The very notion "developmental law" is a contradiction in terms. This is well argued by Karl Popper and there is no need here to rehearse the arguments. The succession: primitive society - feudalism - capitalism - communism may or may not have occurred. In no sense are we entitled to think that there is a law which decrees that it had to occur or, if it did occur, that the occurrence was determined by a developmental law. Hence a location of any event in this series can be no more than a historical curiosity. It cannot explain anything. It is not an "explanation" of capitalism when we are told that it followed after a period of feudalism. Nor would it be sensible to maintain that capitalistic features of a certain society are not capitalistic because they are not preceded by a stage of feudalism. In historicism we have not only an explanatory strategy which is poverty-stricken as Popper has argued. We actually have a strategy which is a non-strategy.

3. The colligation model has very little to commend itself. Its usefulness is based on the assumption that historical events come in clusters and that these clusters are "given". It is usually very hard to find out what the advocates of this model mean by "given" in this context. In one sense they mean that events are linked together into clusters by their temporal succession. It is averred, for example, that the campaigns of Napoleon are colligated with the social dynamics of the French Revolution; or that the corn laws in England were linked into one cluster with the dominance of agricultural, feudal interests. It is then maintained that these clusters speak for themselves and that a historian finds these clusters ready made. One needs very little critical examination to find that these events appear colligated only on certain historical assumptions about a given set of causal

laws and that if one changes the causal laws, a cluster easily disintegrates and can, with the help of different causal laws be re-assembled into a different cluster. At best, therefore, this kind of colligation is explanatory only in a derivative sense, i.e., after the validity of certain causal laws has been established. By itself, this kind of colligation tells us nothing.

A different meaning of "given" is often put forward by advocates of the colligation model. It is argued that events are colligated by their succession in time. One can take it, it is argued, that events are in a cluster when they are temporally contiguous. I would argue that this notion of temporal contiguity is a fallacy. Every event is made up of sub-events and every sub-event of further sub-events. All events, in other words, are infinitely sub-divisible and, therefore, in all cases, it is impossible to establish genuine temporal contiguity between events. When a historian feels his way from one event to the next event, the next event is not the event next in temporal succession. There is always, theoretically, at least one event in between. Any temporal sequence which appears in a historical narrative, even though it may have the commonsense appearance of temporal contiguity, is not really a series of temporally contiguous events. If they are contiguous - and in a historical narrative they ought to be contiguous - they are not temporally contiguous. When a historian feels his way forward from the social dynamism of the French Revolution to the campaigns of Napoleon, he is producing a contiguous series. But the contiguity is by virtue of a general law about the nature of social dynamism; not by virtue of temporal succession. The mystery of Napoleon's campaigns is not at all abated when we are told that they

are temporally contiguous with the social dynamism of the French Revolution even though they are temporally close together with that dynamism.

4. The empathy model sounds, on the face of it, fairly useful. Given the reasonable assumption that when Napoleon started his campaign and when Caesar crossed the Rubicon they must have had something in his mind, it is tempting to imagine that we can explain the campaigns or the crossing if we could empathically enter into Napoleon's or Caesar's mind at that time. We can even conceive or imagine what such empathy might consist of. After all, we all have minds and with some effort, it should be possible to re-live the state of mind experienced by Caesar or Napoleon at a certain moment. The poverty of this strategy does not lie in the absurdity of the invitation to perform empathy, but in the impossibility of rational criticism. Napoleon's state of mind was, presumably, known to Napoleon. But whatever it was he knew is not open to a test and therefore not available for criticism. Here, then, we have an explanatory strategy which looks plausible but cannot really offer an explanation because it is not available for criticism.

Moreover, this strategy suffers from a second-order defect. Suppose we could enter into Napoleon's mind and suppose we disregard the impossibility of criticism of what we conjecture to have been Napoleon's state of mind. We would then still be left with a further problem. Did Napoleon really know his mind or was he deceiving himself? He may well have said to himself when he embarked upon his campaign against Russia that he was doing so in order to solve the problem which had arisen from the fact that he was unable to invade England whose continental blockade was strangling the economy of his Empire. Suppose

our empathy gets him right on this point. There is very little or no explanatory force in this empathy because we will be left with the very real doubt as to whether he was suffering from a delusion. His real mental state may not have been "I cannot cope with the continental blockade" but may well have been "England or no England, my ambition is towards limitless conquest" or, alternately, "I must compensate for the inferiority I feel because I am an upstart in France, because I am short, because I am a foreigner".

5. Next we come to explanations by unmasking. Advocates of this strategy contend that it explains because it shows what is behind the surface or the appearance. It explains because it pulls off the veil and exhibits the reality. When the Spaniards went to America to convert the heathen, they <u>really</u> went to get the gold. When capitalists profess a love of liberty, they <u>really</u> mean to exploit the proletariat, and so forth. There is unquestioned value in such moves, for deception and illusion is of the essence of ignorance. But the advocates of such moves are themselves under an illusion as to what they are likely to achieve. The real value of such moves does not consist in the fact that, once the bluff is called or the veil torn off, the reality will exhibit itself. The real value consists in the fact that the move is made and the professed reason or motive subject to criticism. It does not follow and indeed cannot follow that such a move shows up "what really happened", unless one knows <u>beforehand</u> what really happened. In other words, the unmasking only does one thing, not two, as the advocates of unmasking allege. The unmasking is a move in the practice of criticism. It does not automatically reveal something behind the alleged mask and can therefore not explain what the phenomenon, once it is unmasked, was designed

to conceal. In practice, the advocates of explaining by unmasking are dogmatists at heart and believe they know dogmatically what is behind the mask. If such dogmatism were granted, the unmasking would indeed be at once both criticism and explanation. But since dogmatism is to be rejected on all counts, the explanatory power of unmasking as distinct from the critical import, amounts to nothing.

6. Nothing need here be said about historism. The fundamental misconception of the nature of individuality on which historiam is based makes historism into a non-explanatory strategy. The only explanatory move open to historists is to refer a small event or part to a larger event or whole. Wittgenstein says that a blunder is always a blunder in a certain game but never a blunder as such. Foucault argues that any method is a method in its appropriate episteme. Spengler maintains that any political system is justifiable in terms of the culture it is part of but not absolutely and not in terms of any other culture. These are typical examples of the limits of the explanatory strategy open to historists. At best, "explanations" in historism are referrals.

7. Finally we come to explanation by the employment of a covering law. Here we have a strategy which is genuinely explanatory. One starts with the explanandum and then seeks, by virtue of a covering law, the explanans. Formally speaking, one starts with the prognosis and seeks the initial condition and the covering law. In order to see how this functions in specifically historical explanation, one has to avoid a common misunderstanding. In its commonest form explanation by covering law resembles the famous syllogism about

Socrates and mortality. In this syllogism one starts with the initial condition and then deduces, with the help of the covering law ("all men are mortal") the prognosis ("Socrates is mortal"). This, however, is not the sequence in which the model is employed in historical explanation. In history one starts with the prognosis ("Socrates is mortal") and then seeks an initial condition and a covering law. Moreover, the syllogism as it stands is not an example of a historical sequence. In order to get a historical sequence, one has to assign a time index to both prognosis and initial condition so that the prognosis will be an event which takes place after the initial condition. For example: All men seek gold. Pizarro was a man. Pizarro sought gold.

Once the time index is introduced, one comes up immediately against a superficial difficulty. With time indexes for both initial condition and prognosis, one could still have a covering law which is quite general like "all men seek gold". However, we know perfectly well that there are lots of men who do not seek gold, or, at least, lots of men who do not seek much gold or do not always seek gold. The covering law's validity on which the explanatory procedure depends, will therefore become stronger if we diminish the degree of generality of the covering law and deprive it of its unlimited generality. It will still do its job if we substitute for "all men seek gold" the generalisation "all Spaniards of a certain type in the sixteenth century sought gold". Such tuning down of the generality of the covering law is often essential. Take, for example, the case in which we want to explain why Jones raised his hat. The initial condition will state that Jones met a friend in the street. The covering law will say something about the general custom of raising hats in greeting. However, suppose somebody else raises his hat in a

society in which people greet one another by rubbing noses. In such a situation the original covering law about greeting and raising hats will not help. In order to make sure that we really explain why Jones raised his hat we have to have a covering law of very limited generality, i.e., a covering law which states specifically that in a certain society, certain classes of men greet each other by raising their hats. We have here a covering law of limited generality and can see that its explanatory power is directly proportional to the degree to which it is of limited generality. This matter is really obvious and not in need of elaboration. But in conclusion we must state that the employment of the covering law model in history obliges us not only to reverse the order of discovery so that we start with the prognosis and find the antecedent initial condition, rather than the other way round; but also to provide time and space indexation for both explanandum and explanans and also, preferably, for the covering law.

In history we are never concerned with the future. Therefore the covering law model's ability to provide a prognosis in the strict sense is irrelevant. The event described in the model as the prognosis is an event which has already happened. We do not predict that it will happen but use the model to identify it, pick it up and link it to its explanans.

F.

Let us now try to see how the different models of explanation in history rate in terms of the six requirements listed above.

1. Reductionism scores well on the first and third requirement: its reductions are criticisable and help to reduce the appearance of contingency.

It does not score at all on the second requirement which states that an explanation must remain in a given context and it scores only moderately on the fourth requirement which demands that it must be applicable to human and non-human contexts. The reduction from human contexts to physics is, as we have seen, useless; and a reduction from social contexts to biological contexts needs a lot of additional theory. Reduction also comes close to an ontological commitment and scores badly on the fifth requirement but does quite well on the sixth requirement.

2. Historicism does not score on the first requirement. It is not criticisable. The assertion that there is a developmental law, no matter what that law says, is beyond the possibility of falsification. This alone rules it out of court. It is therefore irrelevant if one has to concede that the historicist strategy scores well on the remaining five requirements.

3. Colligation scores moderately well on the first, second, and third requirement but does not satisfy the fourth requirement. For as soon as one moves away from the human context, the belief that there is a given set of events some of which are colligated inscrutably and unalterably has to be abandoned. Moreover, in so far as it is criticisable, it has failed to stand up to even elementary criticism. Colligation gets some marks on the sixth requirement because it accounts for change; but no score for the fifth requirement because of its strong commitment to an ontology of time.

4. Empathy fails completely by the first and the fourth requirement: empathy is neither criticisable nor applicable outside the strictly human or

mental context. There is a good score on the absence of ontological commitment and on the ability to account for change.

5. Unmasking as an explanatory, as distinct from a purely critical strategy, fails partially on the first requirement. It is criticisable in so far as any criticism is open to criticism; but it is not criticisable in so far as its dogmatic component is concerned. It can only explain if one is prepared to consider the reality that is made to appear behind the mask to be a dogmatic certainty. It also fails frequently on the second requirement because the unmasking, more often than not, though never necessarily, moves us out of the given context. It scores moderately on the third requirement because, provided one is willing to enter into the inherent dogmatism of the revelation, it helps to make events appear to be less contingent. It scores unexpectedly well on the fourth requirement that a strategy should be capable of being used both in a human and a non-human situation. There is no score on the fifth requirement because there is strong and dogmatic commitment to the reality behind the mask and no or little score on the sixth requirement a strategy should explain change.

6. Historism, in professing that nothing can be explained gets no score at all. Historists would not consider such failure to be a criticism but an occasion for pride. Moreover, historism has a commitment to an ontology in that it considers individuality a brute fact of reality and fails completely by the fourth requirement that any explanatory strategy should be applicable to human and non-human phenomena, for historists grant that outside the human sphere, individual differences are not brute facts.

7. The covering law model scores well on all requirements. First, every law or generalisation employed is criticisable. Second, it offers every opportunity for remaining within a given situation unless one has a generalisation which leads beyond it for good reasons. It helps, third, to reduce the appearance of contingency and fourth, it can be used to explain both human and non-human events. The same model is used for physics and for sociology or psychology. There is no commitment to any ontology and a high score for the ability to explain change.

There is no point in providing a formal summary of scored points. Obviously some of the points scored for, say, criticisability are more telling than others, say for the requirement of remaining in the given context. One cannot even suggest that it would take three points scored for the third requirement of remaining in given context to outweigh one failure to score in the first requirement of criticisability. In this situation, the present survey of relative scores must remain somewhat inconclusive and can do no more than offer collateral reasons for the final rating arrived at by the initial survey.

G.

Having come to the conclusion that the covering law model (CLM) alone is without blemishes, let us now turn to a fuller investigation of its special value in history. But first a brief word about its history.

The employment of the CLM in the composition of narratives is as old as intelligible narratives themselves. Wherever we find a narrative which is not a recital of disconnected events we find that the CLM has been used. One can

easily put this to a test and I suggest we try as an example the opening paragraph of Thucydides VI, 9. The general laws used there are not spelt out, largely because they are quite trivial and can be taken for granted. But without the assumption that the reader can supply them, the passage would not make sense. To the best of my knowledge the first theoretical forumulation of the CLM is to be found in the famous treatise on geology by Lyell, first published in 1839. Lyell does not use the label but makes it quite clear that the explanation of the history of the earth must take the form of the CLM. Any change, he states, is to be understood as resulting from the operation of those general laws which we can observe to be operating today. This famous methodological postulate is spelt out in the title of his book. As a geologist, Lyell was not concerned with the possibility of explaining changes with the help of general laws which are no longer in operation today or which were never in operation but which were, in another place and time believed to be in operation. For his purposes, Lyell could afford to be a straight uniformitarian. For further details on Lyell's method of explanation see Ch. C. Gillispie, *The Edge of Objectivity* (Princeton, 1960) pp. 299ff and the same author's *Genesis and Geology* (Cambridge, 1951) Ch. V. See also my "Finches, Fossils and Foscarini", *New Zealand Journal of History*, 1980, Vol. 14.

The CLM, though it was even then not given its name, was first formally described by Karl Popper in *Die Logik der Forschung* of 1934. Since then it has found explicit treatment in many papers by Carl Hempel and in many of Popper's works. It was eventually christened CLM by Dray in his *Laws and Explanation in History* in 1957. This label has found universal acceptance.

H.

Next, let us consider its tangible usefulness to the historian. This usefulness is apparent regardless of whether one is dealing with the history of the earth, the history of politics, the history of social structures, etc. It is equally useful whether one is dealing with impersonal events such as

climatic conditions or with impersonal events and their effects on personal or mental conditions or with intentional and intended activities. The ubiquity and all-pervasiveness of the CLM is very striking. One can often detect its presence even in much Marxian and Marxist history where it is claimed that events are strung together intelligibly in terms of a developmental law (historicism) and not in terms of the CLM. But in so far as Marx's history is intelligible, it is due to the tacit employment of the CLM and not to adherence to his historicist theory of development. For the sake of simplicity I will, from now on confine the discussion to ordinary history, i.e., to what is colloquially meant by "history" and exclude the history of the earth (geology) and of living cells (evolution) and of the cosmos.

In history the CLM is particularly useful because it does not just provide explanations. The CLM also provides a structure for the narrative. Such structure is a *sine qua non* because there cannot be a narrative which hangs together chronologically. Narrated events are seen to follow one another for reasons other than the fact that they are temporally contiguous. Non-narrative sciences do not have to confront this problem. History, which is an essentially narrative science and which purports to describe the truth about events which follow one another, is in need of a special non-temporal structure. Such structure is proviced by the CLM.

1. The CLM provides a direct alternative to temporal contiguity in that it presents events in sequence other than temporal sequences. The explanans precedes the explanandum in time; but the explanandum is not temporally contiguous with the explanans. The gap between the former and the

latter is covered by the covering law. Causal or genetic explanation is thus seen to be independent of temporal contiguity, but dependent on covering laws.

2. A narrative must be constructed in such a way that a reader can "follow" it. If there are too many surprises and if a reader finds too many events he could not have anticipated, the story remains unintelligible. W.B. Gallie, *Philosophy and the Historical Understanding* (London, 1964) argued that narrators achieve such intelligibility by making the events in the story they are telling less contingent than they really are. As against this, the CLM helps us to understand precisely how intelligibility is brought about. In order to make his story intelligible, the narrator does not, by a sleight of hand as it were, spirit contingencies away. He strings events together with the help of covering laws that are known to the reader or with the help of covering laws which, if not known to the reader, are explicitly stated. It is not a question of extruding contingency as such, as Gallie maintained. Any one event can well be contingent relative to the rest of the story. A brick can work loose and kill the hero unexpectedly or the beauty of Cleopatra's nose can make Roman statesmen linger in Egypt longer than prudence dictates. But both for the brick and for Cleopatra's nose there will be covering laws which makes it perfectly intelligible why the brick or the nose intruded into the sequence of events at a particular point.

3. Last, not least, the CLM helps the research historian to find events he may not know of. It is a heuristic device. If one assumes that every intelligible narrative must consist of mini-narratives which are intelligible,

one can focus on the minimum triad represented by the covering law, the initial condition and the prognosis. Provided one knows any two elements of this triad, one can search for the third element. One's knowledge of the original two will help to determine where to look for the third, unknown element. In this way, focussing on an initial condition and a prognosis, one can try to find the covering law which must have ideally been available to the agents involved; or one can use the covering law and the initial condition to look for the prognosis; or one can use the covering law and the prognosis to search for the initial condition. In this way historical research ceases to be an undirected type of antiquarian pastime and becomes a rational search in certain directions. Such research is based on expectations. If the research so indicated remains fruitless, one can take it that the covering law is falsified or that the particular events (initial condition or prognosis, as the case may be) did not take place. The expectation, in other words, was misplaced.

I.

As is to be expected, the CLM has found many critics. The following list shows the major and most common criticisms which have been advanced. The list of critics is taken, with one or two exceptions, from K. Acham, *Analytische Geschichtsphilosophie* (München, 1974) pp. 164ff although the rebuttals are my own.

1. It is suggested (e.g. M. Scriven, "Truisms as the Ground for Historical Explanations", in P. Gardiner, ed., *Theories of History*, N.Y., 1967) that the CLM is irrelevant to historical narratives because in most cases the laws employed are truisms. CLM advocates are ready to concede that many of the laws involved are truisms. But this does not invalidate the explanatory

power of the CLM. The charge of irrelevance is itself irrelevant.

2. It has been argued (e.g. J.H. Hexter, *The History Primer*, London, 1972, Ch.I) that general laws are always laws of physics and that therefore any CLM explanation of social or psychological events cannot hold. This argument is patently untrue for there are lots of generalisations of a social and psychological character.

3. It has been argued (W.H. Dray, *Laws and Explanation in History*, London, 1957) that any covering law only states the necessary conditions under which the events would take place. But for an explanation to be intelligible, one has to state the sufficient conditions as well. The sufficient conditions are those which are in fact intelligible to a listener and are more likely to be an immediately antecedent condition rather than a generalisation. This second part of the argument, however, is not correct. Even if one is looking for a sufficient condition and finds that sufficient condition in an immediately antecedent event, that immediately antecedent event is only linked to the explanandum event in virtue of a covering law. So while the importance of sufficient conditions for an explanation is undeniable, the search for the sufficient condition does not obviate the need for a covering law.

4. It has been argued (e.g. A. Kuzminski, Review of Peter Munz, *The Shapes of Time*, in *History and Theory*, 18, 1979, pp. 61-84.) that covering laws are always atemporal, Platonic forms and therefore commit the employer of covering laws to a Platonic view of the atemporality of universals. This objection is based on a false view of the character of general laws. First,

general laws need not be more than generalisations and can be entertained even when one knows that in a different society at a different time they are false. Second, it is questionable whether general laws even of wide validity are atemporal entities. They are in all cases statements of regularities and as such, falsifiable.

5. Some critics (e.g. B. Barry, "Happiness and Joe Higgins", *London Review of Books*, 20 Oct., 1983, p. 8) believe that the covering law is supposed to be like an umbrella under which events take place so that they can all be deduced from a universal law. Alternately it is alleged, e.g., that the CLM implies that one can deduce and explain Caesar's murder from a general law about the average yearly murder rate in ancient Rome. Such misconceptions of the functions of general laws in explanation need no rebuttal other than an invitation to read the argument in favour of the CLM more carefully.

6. It has also been objected (e.g. M. White, *Foundations of Historical Knowledge*, N.Y., 1965, p. 188f.) that in so far as covering laws are generalisations or statements of probabilities rather than really general laws, they cannot explain. This objection is based on a mistaken notion of what constitutes an explanation. In many cases we have to be content with uncertainties. It is wrong to suppose that unless we can obtain certainty we have no explanation.

7. The backbone of the opposition to the CLM is formed by the old argument (for a history of this tradition which eventually issued in the non-explanatory strategies of hermeneutics and *Geisteswissenschafen* see F. Meinecke, *Die Entstehung des Historismus*, Munchen, 1936) that human beings, unlike atoms and living cells, rocks or stars, are individuals and that any explanatory strategy which depends on the deployment of a general law must be condemned to failure. Individuals, it is alleged, cannot become the subject of laws without grosse distortion. This argument is based on a fallacious estimate of individuality. In one sense, individuality is by no means confined to human persons and to conglomerates like societies which consist of individual persons. As Darwin observed, there are no two finches which are alike and the whole motor of evolution depends on the realisation that there are no two individual organisms which are exactly alike. (I am not competent to say how far this observation can be applied to inorganic nature). However, in an important sense, it is possible to glosse over the differences between individuals and to abstract in all cases those qualities which are alike or sufficiently similar. If a finch were so sensitive to individual differences

that it could not distinguish between another finch and an elephant, there would be no mating and no differential reproduction rates and, therefore, no evolution. In other words, though individuals are genuinely individuals, if one could not disregard, up to a point, individual differences, we would never have evolved. The fact that we have evolved indicates, therefore, that unquestioned differences are no final obstacle to the formation of general concepts and of general laws. In order to uphold the viability of general laws one does not have to deny the reality of individual differences, as many opponents of the CLM claim; but merely accept that individual differences are no insurmountable obstacle to the formation of general concepts and the formulation of general laws.

J.

I have shown so far that the explanatory strategy of the CLM in history shows that historical knowledge is part of the Unity of Science; that the CLM has uses in history which go beyond mere explanation - i.e., it helps to create the minimum conditions for an intelligible time series and serves as a heuristic device for the researcher. Next, I have shown that the critical charges commonly made against the CLM cannot stand up to scrutiny. Finally now I want to show that the CLM can make a fruitful contribution to the settlement of several major methodological debates. These debates are very old; but if such recent books as J. Rüsen, *Historische Vernunft*, Göttingen, 1983 and M. Oakeshott, *On History*, Oxford, 1983 are anything to go by, these debates are far from resolved. In resolving some of these issues the fruitfulness of the CLM will become further apparent.

1. It is frequently alleged that the effort to explain is antithetical to or incompatible with the effort to understand. The advocates of the effort to explain are usually aligned on the side of natural science because it is believed that explanation by subsumption under general laws and the employment of a nomological-deductive procedure is, outside the natural sciences, a form of scientism. The advocates of the effort to understand are considered to be truly aware of the fact that in the social and human sciences all events are irreducibly particular events or individual constellations; or truly aware of the fact that in the social and human sciences the objects of knowledge are really subjects who can think for themselves and that these thoughts are for the most part inaccessible to the outside observer. Understanding is therefore considered to be a procedure which is in principle different from explaining.

The CLM can show that there is nothing antithetical in the difference between understanding and explaining and that there is only one strategy involved in both procedures; but that there is, nevertheless, an important difference between understanding and explaining. Using the CLM we say that we understand when we employ only those covering laws which were used or could have been used by the person we are trying to explain. We say that we explain when we are using those covering laws which we as modern or outside observers believe to be true. The difference between erklären (explaining) and verstehen (understanding) derives from the differences in the kind of covering laws used; not from a difference in procedure. Thus the important distinction between explanation and understanding is pin-pointed and maintained even though the fundamental unity of scientific method is preserved.

It is helpful to introduce another terminological distinction here. We can say that we explain what actually happened if we confine our explanations to the employment of covering laws used by or known to the people we are explaining; and we can say that we explain what really happened if we confine our explanations to the employment of covering laws which we ourselves hold true. Thus we can eliminate the seemingly semantic difference between understanding and explanation according to which the former is a mysteriously human and intuitive procedure and the latter an overtly scientific procedure. We replace the distinction by a neutral terminology in that we are using two terms like actual and real, terms which are semantically very similar, possibly even synonimous. We report about actuality when we understand; and about reality when we are explaining. When modern people talk about modern history, actuality and reality coincide (at least ideally) and explanation and understanding come to the same thing.

2. The CLM also brings a decisive clarification into the never ending debate about the level of objectivity we are entitled to aim at or expect from historians. With the help of the CLM we can see at once that every historical series, that is every sequence from initial condition to prognosis, is governed by a covering law. Every such series is a series relative to a covering law. In our quest for objectivity we must therefore focus not on the particular statements by themselves but on the link between them established by the covering law. It cannot make sense to ask whether it is objectively true that Caesar crossed the Rubicon. The correct question to ask is whether the covering law employed to link the crossing to the next event in the series is true or not. In all cases, the concern with objectivity is not to be directed

to the particular events but to the covering law which links particular and separate events (in this case, the first and the second step across the Rubicon) to each other. Once this is done, we can see that in demanding "objectivity" we are demanding that a covering law be used which was used or could have been used by the person we are talking about. The question as to whether a newspaper reporter reported "objectively" in stating that Caesar crossed the Rubicon is trivial and concerns nothing more than personal bias, prejudice or mendacity. But in asking whether the covering law employed in linking the crossing to another event was the covering law used by Caesar himself, we are asking a methodologically important question which has nothing to do with honesty or bias. In thus re-directing the quest for objectivity, we also make an important methodological contribution. All historical series are relative to a covering law. *Tot storiae quot leges*. There is therefore no merit in criticising the particular events linked together by a covering law. If the covering law is granted, the series of events which it produces has to be accepted - provided always that every single event actually did take place. Criticism therefore has to concentrate on the covering law. Seeing that any historical series is relative to a covering law, one is not entitled, as so many historians have done, to throw up one's hands in despair and declare that all histories are relative and that one is as good as any other. One must, on the contrary, pay double attention to the covering law employed and distinguish the true story from the false story by discussing the covering laws employed in the composition of each story. This can be no comfort to relativists.

3. The CLM also makes a vital and decisive contribution to the problem of the so called hermeneutic circle. If we want to understand Luther as he understood himself, it is alleged, we have in a different sense to have understood him already. We cannot understand unless we see the world as he saw it and we cannot see the world as he saw it unless we understand Luther. This is the grand hermeneutic circularity. The CLM can bring clarification and show that there is no real circularity at all. To understand Luther as he understood himself we have to find the covering law or laws which Luther could or would have used. These laws may well be false and are likely to be very different from the covering laws we would use to explain what happened to Luther. But this insight does not present an obstacle and does not lead to circularity. On the contrary. We are entitled to presume that even though the covering laws used by Luther were different from the covering laws which we would use for his case, Luther and the modern historian have something in common. Both used covering laws. In this recognition there lies an initial comprehension. Though the actual laws used by Luther differed from the laws used by the modern historian, we can legitimately rely on the fact that in both cases covering laws were used and that while the surface structures of the two explanations used by Luther and the modern historian respectively are different, the deep structure of the explanations used by Luther and the modern historian must be the same. Given the common deep structure, the circularity disappears. We understand perfectly well what explanatory strategy was used by Luther because that strategy is identical with the strategy used by the modern historian, even though the actual covering laws used by Luther differ from the covering laws used by the modern historian. The CLM enables us to distinguish between the deep structure of explanations (presented by the CLM)

and the surface structures dependent on the employment of different covering laws. Thus the CLM enables us to resolve one of the thorniest debates ever to have bedevilled historical understanding and explanation. (I have linked the CLM to Chomskyan terminology. For a similar resolution of hermeneutic circularity without Chomskyan terminology see W. Stegmüller, "The So-Called Circle of Understanding", in his *Collected Papers on Epistemology, etc.*, Dordrecht, 1977, Vol. I).

4. The CLM can also clarify the debate between Collingwood and Popper about re-enactment. Collingwood suggested that in order to understand how, e.g. the Theodosian Code was produced, he has to re-enact in his own mind what was going on in the minds of the authors of the Code. Popper has suggested that such re-enactment is impossible because most of the acts in question are far beyond the historian's capacity. Popper suggests instead that we consider every task as a problem situation with a variety of choices. The historian, Popper proposes, should reconstruct the problem situation as it appeared to the agent so that the actions of the agent will be seen as adequate to the situation. (*Objective Knowledge*, Oxford, 1972, p. 189). In *The Poverty of Historicism* (London 1957, p. 141) the proposal comes in a slightly different form. Here Popper suggests that the historian construct a model in which all information is available, and then estimate the degree of deviation of actual behaviour from model behaviour.

Unlike Collingwood, Popper sees that in every human action or performance there is an element of rationality (*Poverty of Historicism*, p. 140). Popper seeks to track down this element and make it less elusive by measuring it

against what would count as a completely rational performance. The effort to figure out what would be a completely rational performance and then define the universally present element of rationality in terms of the deviation of an actual performance from the model performance must remain illusory and theoretical at best. If the debate is restated in terms of the CLM, we can dispense with the notion of a perfect rationality model and yet define the element of rationality in every performance. With the help of the CLM we can say that for every performance there is a covering law at the back of the mind of the performer. This covering law need not be explicit; it can be trivial; it may be no more than an ideal reconstruction; and, to the best of our knowledge it can be false. However, as long as we assume that potentially and theoretically for every performance there is a covering law we can see that in every performance there is an element of rationality. We can even define this element now by saying that every performer has "good reason" for his performance because he must have been able, ideally, to explain his performance to himself with the help of a covering law. The "good reason" quality of every performance is even present when we are dealing with notoriously neurotic behaviour. The hallmark of neurotic behaviour is not that it has no "good reason"; but that what appears as "good reason" to the performer is a "bad reason" to the observer. Thus we can detect the ubiquity of Popper's element of rationality, without recourse to an allegedly completely rational model of performance.

It is now even possible to reformulate what Collingwood meant by re-enactment. We can re-enact precisely because of the element of rationality in all behaviour. All performers used or could have used a covering law. If

we re-enact the reasons for a performance, we are simply wiping away the covering laws which we would have used and are replacing them with the covering law or laws which the performer could have used, thus discovering the "good reasons" he had in behaving as he did. Re-enactment in this sense ceases to be the semi-intuitive and uncriticisable activity Collingwood alleged it to be; and becomes, instead, a rational scientific pursuit, the results of which are open to inspection and criticism. For a historian can certainly make a mistake in attributing to a performer the use of a certain covering law. Re-enactments in terms of the CLM are falsifiable.

5. So far the discussion has assumed that it makes no difference to the explanatory power of the CLM whether the covering laws employed are trivial or not. In practice, however, there is an important difference between covering laws which are trivial ("All men must breathe") and covering laws which are not ("Adolescents tend to seek a moratorium from parental pressure" or "religious beliefs are determined by the mode of production in which the believers are engaged"). The truth value of trivial laws need not be in question. The truth value of non-trivial laws must always be in question. How then can one assess the truth value of non-trivial covering laws? We have here a genuine methodological problem for the truth of any generalisation must be relative to the particular instances it is a generalisation of. Historians in particular and scientists in general who are dealing with infinite data (i.e. in the social sciences one cannot claim to be confining oneself to any one set or type of events) are almost always in the position where they are using the covering law as a criterion of selection as well as an essential part of their explanation. In order to weaken the resulting circularity of

argument, one has to introduce two Postulates. First, one has to adhere to the Postulate of Sufficient Specification. This Postulate demands that any covering law employed must be sufficiently specific (i.e. not totally general) so that if it is used also as a criterion of selection, one can select events only from a given area. Thus it becomes possible to discuss the empirical content or truth value of the covering law. For a criterion of selection which yields supporting evidence from a specified area has a higher empirical content than one which yields supporting evidence from anywhere at all.

Second, there must be the Postulate of Sufficient Variety. This Postulate states that the empirical content or truth value of a covering law will be proportional to the degree to which the criterion of selection varies from the covering law employed. In practice one can give the following example. If one uses a Marxist covering law as a criterion of selection and then invites the reader to accept the events selected as confirmation of the truth of a Marxist covering law, there can be very little confidence in the truth of the covering law. But if one uses Gibbon's selection of events and then finds that they can be explained with the help of a Marxist covering law, one can be more confident that there must be some truth in the Marxist covering laws.

K.

In conclusion I would stress that not the least merit of the CLM is that it can also be used to underpin at least some of the other six strategies and those strategies become more useful to the degree to which they can be shown to avail themselves of the CLM.

The notion that there is colligation can be derived from the CLM. It is a mistaken notion if the colligation is taken to be elementary; but if colligation is a secondary phenomenon, one can see how the events in any series set up with the help of the CLM must appear to be colligated.

Empathy has to be dismissed as an explanatory strategy because the act of empathy cannot be criticised. However, if one means by "empathy" a summary description of the covering laws available to the person one is trying to empathise with, the project of empathy becomes criticisable for one can certainly decide with the help of records or documents what covering laws could have been made use of by the person one is trying to empathise with. I cannot get into the mind of Charlemagne. But knowing whom he dealt with and what he read or listened to, I can conjecture what covering laws he might have made use of. And a person more learned than I can criticise my conjecture.

The strategy of unmasking also owes a debt to the CLM. In a nutshell, the attempt to unmask can be described as an attempt to substitute one set of covering laws, say about economics, for a different set, say about theology. In so far as the explanatory strategy of unmasking is no more than such a substitution it can be considered as a special application of the CLM. In fact, unmaskers, however, claim that their substitutions have a special kind of finality. In so far as they make this claim, their employment of the CLM is pure coincidence, for the heart of their strategy consists in giving unqualified preference to a set of dogmatically asserted covering laws.

This brief survey leaves only three of the seven strategies without

obvious debt to the CLM - reductionism, historicism and historism.