IV

CAUSAL LAWS AND CAUSAL ANALYSIS

1. *The Causal Version of the Model*

So far I have said very little about specifically *causal* explanation. In Chapter II, although causal language was not avoided altogether, our concern was chiefly to test the covering law claims with respect to explanations which were complete in a special sense, and which would not necessarily, or even naturally, be formulated in causal terms. In Chapter III, too, no attempt was made to contrast explanations given by making reference to causal laws with explanations of other kinds. But some defenders of the model have stated their claims explicitly in terms of covering *causal* laws, as if subsumption under these constituted a special case. It may therefore be worth our while, even at the risk of some repetition of points made in a different context of discussion, to ask whether there are any peculiarities about specifically causal explanations which might, or might appear to, count either for or against the argument which has been developed so far.

The causal version of the model, like the broader theory, may be regarded as formulating both a necessary and a sufficient condition of giving an explanation. A. J. Ayer puts the necessary condition claim without qualification when he declares: "every assertion of a particular causal connection involves the assertion of a causal law";[1] and Gardiner, in discussing the stock Humian billiard-ball example, observes: "the force of the word 'because' derives from the fact that a particular case has been seen to satisfy the requirements of a causal law . . . ."[2] Straightforward statements of the sufficient condition claim are less commonly found. But it is not at all

[1] *Language, Truth and Logic* (2nd ed.), London, 1948, p. 55.

[2] Op. cit., p. 2; see also p. 114. For other examples, see quotations from Professors Kaufmann and Braithwaite, Chap. I, section 2.

uncommon for philosophers to represent causal laws as having special explanatory force. Thus C. J. Ducasse, after defining explanation in terms of subsumption under a 'law of connection', and having added that a mere 'law of correlation' will not do, goes on to say that laws of the former sort are either causal or logical.[1] And many contemporary philosophers of science, with quantum physics in mind, would agree with Mr. A. P. Ushenko that causal laws alone have "explanatory virtue".[2]

No doubt many of those who have phrased the covering law claim in terms of specifically causal laws have used the term 'causal' carelessly. Some have meant no more than 'empirical laws', by contrast with, say, general principles of logic. Others have probably had in mind a distinction within the class of empirical laws, between mere 'probability hypotheses' or statistical generalizations and genuinely universal laws—for causal laws are often held to set forth invariable connexions. But the notion of a causal law is often taken in a more obvious sense as simply a law expressible in causal language—a law which would naturally assume the form 'X causes y'. In assessing the causal version of the covering law model, it is this latter interpretation which I propose to adopt.

To say that one sort of thing *causes* another to happen is usually held to mean something more than that phenomena of the first type are always followed by phenomena of the second. As M. R. Cohen puts it, in the course of warning social scientists against philosophers who regard causality as nothing but repeated succession: "A causal relation asserts more than mere past coincidence. It affirms that there is some reason or ground why, whenever the antecedent event occurs, the consequent must follow."[3]

What sort of 'reason' or 'ground' is envisaged here? Why are specifically causal connexions especially tight and intelligible? According to one currently popular view, a law of

[1] 'Explanation, Mechanism and Teleology', Feigl and Sellars, *Readings in Philosophical Analysis*, p. 540.

[2] 'The Principles of Causality', *The Journal of Philosophy*, 1953, pp. 85–86.

[3] *The Meaning of Human History*, p. 102.

causal connexion, by contrast with a mere law of observed correlation, derives its necessity from a *logical* connexion between cause and effect, in the light of some accepted general theory of the subject matter. Thus Ryle holds that causal statements are themselves covertly theoretical. Causes, he says, are designated by words which are more heavily 'theory-loaded' than the words which designate their effects; they have as part of their *meaning* an essential theoretical reference.[1] The reason why 'wound', for instance, is the right kind of word to use in indicating the cause of a scar, while 'pain', although also designating an antecedent condition, is not, lies in the fact that it carries the right kind of theoretical load to explain scars—i.e. a medical or physiological one. Similarly, although a red sky is quite incapable of *causing* a fall of rain, a cold front may be said to do so because of the meteorological load of the term concerned.

Such an account of the explanatory force of specifically causal laws has the merit of going beyond a mere statement that causal connexions must be more than instances of uniformly observed sequences. Ryle says both what the 'more' is—a theory—and why it is not always obvious to those who recognize the connexion; and if his analysis held good in all, or even the vast majority of cases, the problem of elucidating the explanatory role of causal laws could simply be referred back to my discussion in the previous chapter of the way theories provide explanations. But it is important for our understanding of causal explanation in history to recognize that Ryle's analysis does not hold good generally. In the discussion to follow, I shall deny that the causal explanations which historians commonly give can be said to require or presuppose corresponding causal laws—for reasons arising out of the peculiarities of causal analysis as well as for reasons of the kind already advanced in non-causal cases. But I shall argue, too, that causes seldom explain their effects by virtue

[1] In lectures delivered at Oxford University during Trinity Term, 1952. Ryle's theory has been developed farther by N. R. Hanson in 'Causal Chains', *Mind*, 1955, pp. 289–311.

of some implicit theory—indeed, that they need not explain their effects at all.

It is worth noticing, in this connexion, that the providing of causal explanations has not always been regarded as part of the historian's proper task. Indeed, serious misgivings have often been expressed by philosophers and methodologists of history as to whether the word 'cause' ought to appear in historical writing at all. What is, on the face of it, more curious still, such doubts have been expressed not only by opponents of the covering law model like Oakeshott and Collingwood, but by many of its convinced supporters as well.

Thus, in the bulletin of the American Social Science Research Council already referred to, can be found a warning from Professor Hook to the effect that 'cause' is "an ambiguous and difficult term of varied and complex meaning", which should be used by historians "with circumspection".[1] The warning so impressed his historical colleagues that they concluded that the term 'cause' as used by historians "must be regarded as a convenient figure of speech, describing motives, influences, forces and other antecedent interrelations not fully understood".[2] And two historians, Professors C. A. Beard and A. Vagts, in a minority report, went on to declare that the term "should never be used in written history", being suitable only for "conversations" and "small practical affairs". In his methodological primer for historians, Gottschalk comments caustically: "this is a roundabout admission that the authors of this proposition are somewhat baffled by the problem of causation."[3] Yet he too feels obliged in the end to admit that "the problem of historical causation is still essentially unsolved".

The objection of the idealists is not so much that 'cause' is too loose and slippery a word for 'scientific' history, as that it is, when understood, found to be an irrelevant or inappropriate category. According to Oakeshott, its use betrays an

[1] *Bulletin No. 54*, p. 110.
[2] Op. cit., p. 137.
[3] *Understanding History*, Chicago, 1951, p. 223.

anti-historical way of thinking about the subject-matter—an attempt to convert history into a kind of science.[1] For Oakeshott, causal analysis is *too* scientific rather than not scientific enough. The view of Collingwood is similar, although more complicated. Collingwood analyses the concept of causation into three related notions, only one of which is a proper historical category, the others being legitimate and illegitimate extensions of the concept for scientific purposes. According to Collingwood, in so far as we mean anything more by a cause than 'affording someone a motive for doing something' (he calls this 'Sense I'), the notion has no place in historical studies.[2]

Now it is perfectly clear that, no matter what these theorists say, historians do commonly *attempt* to provide causal explanations of what they study. This is a fact which can be verified by the most cursory glance at one or two standard history textbooks. As Mandelbaum has observed: "This acceptance in practice of what is disdained in theory constitutes a paradox worth investigating."[3] In examining the causal version of the model in this chapter I shall, to some extent, be investigating it. For it will be my thesis that once the difference between offering a causal analysis of, and applying causal laws to, a particular happening is appreciated, many of the difficulties which the philosophers in question have seemed to find in the use of the causal concept in history will be seen to disappear.

2. *The Discovery of Causal Laws*

Let us begin by investigating the notion that a causal law is a law of an especially tight and, at the same time, explanatory sort. What should be said in this connexion about a commonsense causal assertion like: 'Dirt causes disease'? It does, indeed, appear that the truth of such a 'law' depends on more than just the observation of a correlation between dirt and disease—at any rate, it *asserts* more than that dirt is always

[1] See section 5 below.
[2] *An Essay on Metaphysics*, pp. 285–6.
[3] 'Causal Analysis in History', *Journal of the History of Ideas*, 1942, p. 30.

accompanied by disease. But what exactly are we to say about this 'more'? On the face of it, at any rate, such an example would seem to raise difficulties for Ryle's account of the theoretical background to causal statements. For, if anything, it appears to be the effect word which, in this case, carries the heavier theoretical load. The word 'dirt' is not in any obvious way 'theory-loaded', yet the meaning of the causal statement is clear enough, and it would probably be regarded as true by many people.

It might, I suppose, be argued that the notion of a 'theoretical load' must be taken more subtly than this. For what a word is intended to convey—especially a 'loaded' one—may be dependent in an important way upon its context of utterance. Thus, in the motor-car example of the previous chapter, the term 'oil reservoir' had a very different significance for the assistant mechanic, who understood the lubricating system, and for me, who thought of it only as a receptacle into which oil was put. We might say that there is a contextual dimension to theory-loading, so that a word which ordinarily lacked a theoretical reference might acquire one in the right context. 'Dirt' might be a case in point. The circumstances in which one might say 'Dirt causes disease'—e.g. in a class of probationer nurses, not yet sufficiently proficient in sterile techniques—might be such that the word means more than, say, 'dust'. It might mean something more like 'substance laden with bacteria'.

That an ordinary word like 'dirt' might fluctuate a good deal in its implicit theoretical reference from one context to another is no doubt true, and it is therefore necessary to restate Ryle's theory in such a way that this can be taken into account. Yet I should still want to question the claim that a causal statement like 'Dirt causes disease' could only be said meaningfully, or justifiably, in contexts where one could reasonably claim that a theoretical reference was understood.

A defender of the Rylian account might be willing to go one step farther in the attempt to accommodate examples like the one we are considering. It might be allowed that one could

meaningfully say 'Dirt causes disease' without any of the relevant theoretical knowledge (call it 'the germ theory of disease') as long as one did not deny that there must *be* some such connexion between them. Thus the ward helper might learn the same lesson as the student nurses, without learning the medical significance of 'dirt'. For him it is enough to be able to identify dirt in order to get rid of it. The justification for his saying 'Dirt causes disease' is then indirect; it is a matter of a very proper faith in authority. The kernel of Ryle's account would survive, however, in that for *someone* 'dirt' must carry a theoretical load.

Such a defence re-emphasizes the consideration which led to Ryle's analysis: the fact that, even where a person does not know what the 'connexion' between cause and effect is, he at any rate assumes that there is one to be discovered. Any alternative account to the view that the connexion in question is theoretical must elucidate its nature in some other way; it must do more than just return to the simple, Humian 'regularity' analysis which Ryle's notion of a 'theoretical load' supplements to advantage in so many cases. Let me therefore explain why I do not think that the concessions made can render Ryle's account universally applicable, and in what alternative way the notion of 'a connexion' may have to be interpreted.

Let us consider the statement, 'Dirt causes disease', said not by the supervisor of a modern hospital, but by, for example, Florence Nightingale to some of her early helpers. I shall assume that none of them knew the germ theory of disease. Even if this was not true of them, it probably was true of some of their predecessors. Is there no way in which they (or such predecessors) could have arrived at the truth of the causal statement?

It seems to me that Florence Nightingale could have discovered that dirty hospitals caused disease among her patients without necessarily knowing why this was so—at any rate, without knowing the theoretical connexion between the two. Nor does the possibility that she might merely have got this

on authority arise. The discovery could have been (and probably was originally in fact) made by observing correlations between dirt and disease in hospitals of the time. It would be noticed that cleaner hospitals had lower, and dirty hospitals had higher, death-rates from disease; and it would be found that when she and her helpers cleaned up a dirty hospital, the disease-rate fell. This is quite sufficient to justify her saying: 'Dirt causes disease.'

Is this to relapse into the position which Ducasse, Cohen, and Ryle all wish (and I think rightly) to avoid: the view that causation is reducible without remainder to correlation; or, to put it in a more precise way, the view that x is the cause of y if whenever x then y? If I had talked only about what Miss Nightingale and her helpers *observed*, there would be some room for such a charge, for, as Ryle has rightly insisted, we cannot discover causes merely by looking—nor, indeed, by *repeated* looking. But there is an additional fact to be taken into account here; for the causal conclusions drawn rested not just on what these women saw, but also on what they found themselves able to *do*. The crucial step in their investigations was the discovery that if they removed the dirt, the disease-rate dropped; if they allowed their sanitary operations to flag, then up it went again. Their quite adequate grounds for concluding that dirt causes disease were that by *manipulating* the dirt-rate, they found themselves able to control the disease-rate.

One important difference between causal candidates which merely satisfy the test of invariable correlation, and those which also meet such a practical test, is this. Having observed that whenever x then y, if I merely know that from an occurrence of x it is safe to predict a y, without knowing the nature of the 'connexion' between them, then I must always be prepared to entertain the hypothesis that *both* x and y are effects of something else. If, for instance, I observe that the birth-rate of white mice in New York is correlated with the divorce-rate of movie stars in California, I must be ready to entertain the hypothesis that both are caused by, say, sun-spot cycles,

or the fluctuations of a yet undiscovered element in the atmosphere.[1] This, of course, remains mere hypothesis unless the connexion between them, perhaps in terms of a theory, becomes clear. In some cases, for an initially puzzling correlation of this kind, a satisfactory indirect connexion can eventually be found—as, for instance, between the influx of visitors to seaside resorts and crime waves (both may be caused by 'summer heat'). A direct causal connexion may also sometimes be shown to underly a correlation—as, for instance, in the case of the correlation between the size of rabbit populations and the prevalence of dust storms. In the white mice example we should probably regard it as a waste of time to look for a common cause; we should be content to say that the correlation was just a coincidence. Yet if it were very persistent, it would become less and less satisfactory to say this, and we should feel more and more obliged to look either for a direct or indirect connexion of the kinds mentioned.

Could it be objected that we *do* sometimes say that one phenomenon is the cause of another merely because one is found to be uniformly prior to the other in experience? It seems to me that to say this would generally be regarded (and rightly so) as just the expression of a 'hunch', which required to be confirmed by elucidating the nature of the 'connexion'. It would be more accurate in such cases to say, 'I think x causes y', or 'x probably causes y'. But—and this is the point I wish to emphasize—what we could *not* consistently say is that x does not cause y even though by manipulating x we can control y. If whenever the pest control officer in New York succeeds in reducing the size of the white mice population, the divorce-rate falls in California, then we cannot avoid the conclusion that a change in the birth-rate causes a change in the divorce-rate. And in a particular case, we should have to allow that the cause of the observed change in the divorce-rate was the manipulation of the death-rate—thus applying our knowledge of the causal law.

[1] For a discussion of the problem of distinguishing correlation and causation in the social sciences see M. R. Cohen, op. cit., p. 16.

To deny that agency is, in this way, an *alternative* to theory in validating an alleged causal connexion could only be justified, I think, on the basis of some metaphysical hypothesis of the 'Evil Genius' type. That is, it might be insisted that even if whenever I manipulate x, y alters in the relevant way, this may still be due to some unknown 'third thing', for instance, the synchronizing activities of a Cartesian demon who delights to deceive us—to make us think that we are in control. But such an extravagant hypothesis deserves no place in our analysis. Indeed, metaphysical arguments could just as easily be found for saying that we can never be sure on *any* (e.g. even theoretical) grounds that one thing is the cause of another. The metaphysical objection may seem to derive some force from the possibility that, on some occasion, my attempt to control a certain y by manipulating a certain x may not work. But this is just an aspect of the general corrigibility of empirical statements. I see no reason to doubt that a causal statement of the form 'x causes y', may, in some cases, be confirmed to the point where the possibility that, when someone has produced an x, a y will not follow, is only a logical possibility. For anyone but a metaphysician, i.e. for a scientist, historian, or plain man, it would therefore be unreasonable to take the metaphysical way out.[1]

In *An Essay on Metaphysics* Collingwood points out that, in one of the uses of the term 'cause' (he calls it 'Sense II'), the cause of a thing is the *handle* by means of which we can control it; it is "an event or state of things which it is in our power to produce or prevent, and by producing or preventing which we can produce or prevent that whose cause it is said to be".[2] Thus, to quote some of his examples: "The cause of malaria is the bite of a mosquito; the cause of a boat's sinking is her being overloaded; the cause of books going mouldy is their being in a damp room; the cause of a man's sweating is a dose of aspirin. . . ."[3] Such causes, Collingwood adds,

[1] The sentence which originally ended this paragraph has been deleted in response to a criticism of Professor John Passmore

[2] p. 296. [3] p. 299.

always depend for their operation upon *conditiones sine quibus non*.

There are, however, two ways of interpreting Collingwood's point. On what might be called the 'weak' interpretation, his doctrine of 'the handle' might be regarded as merely calling attention to a practical condition which must be satisfied by any causal candidate. If he is right about it, what falls under the antecedent clause of a law cannot be a cause—and, *a fortiori*, the law cannot be a causal one—unless the condition specified is a manipulable one. This has often been dismissed as a correct, but not very important, observation about our 'ordinary' use of the word 'cause'.

But in the present instance, I am not just saying that manipulability is often one of the criteria to be satisfied before calling something a cause. What I claim is that there are cases where Collingwood's 'handle' *replaces* Ryle's requirement that there be a theoretical connexion between cause and effect: that if a certain condition satisfies the practical test, then that is enough to give it causal status. Let us call this the *strong* interpretation of Collingwood's doctrine of the 'handle'. Even in the strong use, of course, there are still, in theory, *conditiones sine quibus non*; for causal laws only indicate sufficient conditions, *ceteris paribus*, of what falls under their apodoses.[1] But in contexts where we speak with point of the discovery and use of causal laws, the notion of there being additional necessary conditions is swallowed up in the assumption of a normal application situation for the law—the details of which we need not have gone into. They are taken into account by the context of inquiry—e.g. British hospitals in the nineteenth century.

In the light of this account of the way causal laws are often discovered and used, it would be rather odd to regard them as invariably explanatory. For in so far as a causal law—one which we should naturally express in the form '*x* causes *y*'—is arrived at by manipulation, we may expect it to be formulated for just that kind of situation where we should admit that

[1] On the use of '*ceteris paribus*' see Note B, p. 170.

no explanatory connexion between cause and effect is known. As Collingwood himself pointed out, the criterion of 'the handle' (in what I have called the 'strong' use) is appropriate to the practical rather than the theoretical (i.e. explanatory) sciences. Thus, although it is necessary to insist, with Ducasse, Cohen, Ryle, and others, that causation is not reducible to mere correlation—for it is always more than this—it is important to recognize that it may very well be something less than an explanatory connexion between events. It may only be (let us call it) a *practical* connexion; and in such cases, we cannot expect the causal law, when applied to a particular case falling under it, to have much more explanatory force than an ordinary empirical generalization. For we have no 'insight' into the connexion; there is no analysis of the case, no reduction of a gross and opaque connexion to transparent, 'hat-doffing' ones.

3. *The Selection of Causal Conditions*

I have argued that there is nothing about the notion of a 'causal law', in so far as we mean any law which could be expressed in causal language, which would make subsumption under one invariably explanatory. If we turn now to the companion claim that knowledge of a causal law is at any rate a necessary condition of giving a causal explanation, we shall find even less reason for allowing it—especially in history. For in typical historical cases, any causal law extracted from the historian's particular causal explanation will appear just as artificial and just as innocent of independent justification as the non-causal examples discussed in Chapter II. The test for Florence Nightingale's causal assertion was: 'Repeat the cause and the effect should follow.' No such test is relevant to an assertion like 'The cause of Louis XIV's unpopularity was his foreign wars'. For the truth of the historian's assertion does not depend on the particular causal connexion being an instance of a causal routine.

If a particular causal explanation does not represent what happened as an instance of some causal routine, what should

be said about its logical structure? On what grounds does an historian represent something as 'the cause' when examining a particular state of affairs? In answering these questions, it is helpful to distinguish between two sorts of tests which would seem to be applicable to any causal candidate. On the one hand, the historian must be able to show that the condition called the cause was really necessary, i.e. that without it what is to be explained would not have happened. He must also be able to show that there is some reason for singling out the condition in question from among the other necessary conditions, which, since what is to be explained did in fact happen, may be presumed to amount to a sufficient set. These might be called the *inductive* and *pragmatic* tests of causal selection. Causes, that is, must be important *to* the inquirer as well as important *for* the effect. Let me try to bring out briefly some of the features of each of these two kinds of importance.

Collingwood's doctrine of 'the handle', in what I have called its 'weak' interpretation, formulates one pragmatic criterion which is often applied. The historian will normally be concerned to indicate as causes those conditions which were humanly important because under human control; and causes will thus often appear in historical writing as what was done by the historical agents who are mentioned in the historian's narrative. It is important to add, of course, that the 'handle' test would apply just as well to cases where we are referred to what was left *un*-done; for historical causes are often non-occurrences, absences, failures to do what could have been done.

In accepting Collingwood's point, there is no need to push it to the paradoxical extreme which he himself allowed—that the cause must always be the sort of thing which would have been a possible handle for the *speaker* (or writer). All we need to say is that a cause is selected in the light of a certain kind of inquiry.[1] This is sufficient explanation of the puzzle which

[1] As Gardiner puts it, 'cause' is a function of language level (op. cit., p. 10). My remarks here are only intended to supplement Gardiner's discussion in Part III, section 4.

leads Collingwood to assert his doctrine of 'the relativity of causes': the doctrine that the cause of, say, an explosion, will be different for a chemist, a night-watchman, and an investigator from the City Hall. If a dispute were to develop between these three as to what condition was *really* the cause, it would have to be pointed out to them that it depended partly on what kind of steps they were interested in discovering toward avoiding such disasters in future. If an historian, writing later about the explosion, takes up the point of view of one or other of these kinds of agents—he may, for instance, be writing 'administrative history'—then his selection of the causal condition will be governed accordingly. If he is, on the other hand, writing general history, and is therefore not involved in the hypothetical controversy, he may feel obliged to list more than one cause. But he would find it difficult to ignore the practical criterion for the selection of causes altogether.

Collingwood's analysis of the pragmatic test for causes is not exhaustive, however. For many other practical considerations besides manipulability could be elicited from our ordinary use of causal language. A causal explanation is often, for instance, designed to show what went wrong; it focuses attention not just on what was or could have been done, but on what *should* or *should not* have been done by certain historical agents. Thus, selecting the causal condition sometimes cannot be divorced from assigning blame.[1] The close connexion between the two is recognized by Halévy when, in writing about the fluctuations in the price of wheat in England in 1816–17, he says: "an attempt was made to prove that the Corn Bill was the cause of these wild fluctuations. But to bring forward such a charge was tantamount to maintaining that the Bill was ineffective, and had failed to fulfil its authors' intentions."[2] It is significant, in this connexion, that historians often use expressions like 'was responsible for' when they

[1] The above point may be added to what is said in Chap. V, sections 2 and 5, about the way explanation in the humanities goes beyond anything covering law theorists would accept as 'scientific'.

[2] *A History of the English People in the Nineteenth Century*, 2nd edn. (revised), tr. by E. I. Watkin, London, 1949, vol. ii, p. 61.

want to put into other words conclusions which they would also be prepared to frame in causal language.

Thus, if, with a recent writer on the subject, we were to ask: "Can history really show by its method that Hitler's invasion of Poland was *the* cause of the war?", we should be wise to clarify the question before trying to answer it.[1] Two historians who argue, for instance, whether it was Hitler's invasion of Poland or Chamberlain's pledge to defend it which caused the outbreak of the Second World War are not just arguing about whether these were necessary conditions of what happened. Nor, indeed, is it likely that they are at odds about which of these candidate-causes was a manipulable condition—since, in an inter-subjective sense, both clearly were. They are trying, rather, to settle the question of who was to blame. In such cases, it should be noticed, there is an *essential* connexion between assigning responsibility and attributing causal status. The point is not that we cannot hold an agent responsible for a certain happening unless his action can be said to have caused it. It is rather that, unless we are prepared to hold the agent responsible for what happened, we cannot say that his action *was* the cause. The pragmatic criterion is not just something added to a causal judgement already made on other grounds; for that judgement is itself, in part, the judgement that a certain condition deserves special attention.

There are many other pragmatic reasons for selecting conditions as causal ones. Causes are often, for instance, the initially mysterious or hidden conditions—the ones which still remain to be discovered after we have gained a preliminary knowledge of a situation. Professor MacIver makes a similar, although not identical, point when he says that the causal condition is often a 'precipitant'.[2] It is what has to be added to certain other conditions already present—like the spark which ignites an explosion in a powder factory.

To be a 'precipitant' a condition need not be the last one

[1] M. C. Swabey, *The Judgment of History*, New York, 1954, p. 26.
[2] *Social Causation*, Boston, 1952, p. 161.

to come into existence, for it is enough generally that it appear as an intruder—a foreign element—in the situation envisaged. As MacIver puts it: "The crucial events regarded as causes are assigned this role because they are represented as interferences with normal conditions."[1] Thus a storm is the cause of a traffic snarl because it blew trees across the roadway. In the language of the social scientist: "The presumption is that a system is operating in a manner congenial to its self-perpetuation until something intervenes. . . ."[2] In historical contexts, the point would simply be that the causal condition is an unexpected one in that particular context. If the cause is a non-occurrence, this requirement would, of course, be inverted: the causal non-occurrence would be something that was to be expected, but which did not occur. It was not a cause of the Second World War that Hitler failed to be struck by lightning on 31 August 1939.

A large-scale attempt to elicit the pragmatic criteria employed in causal analysis in history would be beyond the scope of the present discussion, although it is a project well worth undertaking for its own sake. I have tried only to indicate the sort of thing which might be expected to emerge from a more thorough study, and to show how this aspect of causal analysis raises special difficulties for any attempt to generalize the historian's causal statement as a law. For even a cursory study of the matter seems to me to show that causal explanation does not just *happen* in a great many cases to fall short of the standard of completeness employed in Chapter II. It shows, rather, that such explanation is *necessarily* incomplete if that standard is accepted; for the very notion of 'discovering the cause' requires the *isolation* of some condition or conditions. The resulting contrast is part of what is demanded by a causal 'Why?'

Covering law theorists who agree that, since historical causes are usually only especially important necessary conditions of their effects, it would be misleading to say that the historian's causal conclusion was warranted by a covering

[1] Op. cit., p. 186.
[2] Op. cit., p. 173.

causal law, may nevertheless be tempted to argue that his conclusion requires a law of another kind. For it may be thought that in order to satisfy the second, the *inductive*, test of causal selection, it will be necessary to show that without an event of type x—the cause—an event of type y—the effect—could not have happened. And this may appear to be equivalent to appealing to a law linking effect to necessary condition: a law which might naturally be expressed in the form, 'Only if x then y'.[1] Such 'laws of necessary condition' would not, of course, render predictable what is to be explained; and to allow that mere subsumption of x and y under such a law counts as explanation would represent a considerable departure from the original claims of Popper, Hempel, and Gardiner. Yet it may be felt that in insisting that *some* kind of law is required by the explanation, the most important feature of covering law theory is nevertheless retained.

It is important to recognize how seriously such an analysis would misrepresent what may be presumed to be the historian's meaning if he said that the condition he selects as cause was necessary for the happening he wishes to explain. We must remember, as always, that he is talking about particular happenings in a quite definite historical situation. When he says that y would not have happened without x, he does not mean that only in situations where there is an x-type event can you expect a y-type. He means that in that *particular situation*, if everything else remained the same, the y which in fact occurred would not have done so; or, at any rate, that it would have been different in important respects. The law, 'Only if x then y', might therefore be quite false, without the historian's conclusion having to be withdrawn. As we saw in Chapter II, there may, for instance, be a number of things which Louis XIV might have done to make himself unpopular

[1] Mr. D. Gasking, for instance, points out to historians that ". . . the simplest kind of general law which might be assumed in an explanation is of one or other of two basic types. They are of the form: Whenever you get A you get B (A is a sufficient condition of B), and Whenever you don't get A you don't get B (A is a necessary condition of B)." 'The Historian's Craft and Scientific History', *Historical Studies Australia and New Zealand*, 1950, p. 116.

besides pursuing the policies he actually did. But the question whether the effect could have been brought about in other ways is not directly relevant to the historian's judgement that, in the particular situation under examination, the cause was necessary.

It would be an exaggeration, however, to say that this question is entirely irrelevant; for if there was a reasonable chance of y happening anyway, even without x, then it would begin to be questionable to call x the cause of y. If, for instance, z would have been a satisfactory substitute for x, and the situation could be shown to be one in which z was not at all unlikely, then the causal status of x would probably come under review. Thus Collingwood, in denying that the length of Cleopatra's nose can be considered a genuine cause of the Roman Empire's taking the course it subsequently took, castigates what he calls "a bankruptcy of historical method which in despair of genuine explanation acquiesces in the most trivial causes for the vastest effects".[1] But why, exactly, does the nose in question fall short of full causal status? It is not because in any obvious sense it is too small a thing to have caused such a 'vast' effect. A causal condition may, in fact, be as small as you please, as long as it is *crucial*. But to be crucial (a notion which includes the pragmatic criterion), a causal condition must be genuinely necessary in the situation envisaged. And it seems obvious enough that Cleopatra's nose falls short of causal status because the historian's general knowledge of the situation in which the Roman Empire grew is such that he believes that it would have taken much the same course if Cleopatra had never existed.

The point which requires emphasis is that, whether or not the historian concludes that the suggested cause was a necessary condition of what he wishes to explain, his argument for the conclusion he in fact reaches need not raise the question whether the condition in question was a *generally* necessary one for events of the type to be explained; for the historian's explanatory problem is not to represent a particular causal connexion as an instance of a recurring one. He does not ask

[1] *The Idea of History*, pp. 80–81.

himself, 'What causes y's?'; he asks, 'What is the cause of this y?'—and he asks this about a y in a determinate situation. The conclusion that x was necessary for the occurrence of y in that situation will, in fact, usually require an exercise of judgement similar to the one discussed in Chapter II (although the question is no longer whether certain conditions formed a sufficient set). It is true that the historian must be *certain* that without x, y could not have happened, if he is to say without qualification that x was the cause of y. But there is no need to assume that the only way he could arrive at such certainty is by knowing a law of the 'only if' form. As historical methodologists have often pointed out, what the historian has to do is 'think away' the suggested cause in order to *judge* what difference its non-occurrence would have made in the light of what else he knows about the situation studied. If any qualifying phrase is to be attached to the historian's conclusion it would read, not 'other things being equal', but '*the situation being what it was*'—indicating that other mentioned and unmentioned features of the particular situation have been taken into account in arriving at the causal conclusion.

If the causal explanation were seriously challenged on its inductive side, it might indeed become necessary to bring in, bit by bit, all the data which in Chapter II were represented as constituting a complete explanation rather than a causal one. This is not to say that, after all, we must enlarge our conception of a cause to that of a sufficient condition rather than a merely necessary one. It is rather that, if pressed to show conclusively that x *was* necessary, the historian might have to specify what, in fact, the other conditions were—i.e. to rebut the suggestion that even without x they constituted a sufficient set.

4. *Causal Laws as Generalizations*

In the preceding sections I have called attention to important features of two quite different kinds of causal inquiries: those in which the investigator seeks to establish general causal connexions—causal laws—and those in which he seeks

to discover the cause of a particular happening in a determinate, concrete historical situation. And I have denied that the second sort of inquiry need be related to the first in the sense that it applies what the first sort of inquiry discovers.

It may perhaps be felt that although it is true that historians seldom have to deal with instances of causal routines, and that the causal version of the model on its necessary condition side is therefore misleading, my account of the discovery of causal laws does less than justice to the sufficient condition claim. And I must indeed admit that the reasons for doubting the explanatory force of causal laws set out in section 2 need not always hold. A statement of what was at first merely an observed correlation, for instance, could be raised to the status of a causal law by bringing in sufficient theoretical considerations to establish the connexion between cause and effect. The mere *observation*, 'Whenever we find dirt we find disease', although not a causal law, might attain causal force by the discovery of the germ theory of disease. Causal laws may also in some cases be *directly* derivable from theoretical knowledge, without any empirical observation of 'cases'—the 'laws' then showing their origin by being more naturally expressed in the subjunctive mood. An example of such a law might be: 'Sustained nuclear radiation *would cause* genetic deterioration of living beings.' But the fact that a causal law *can* be theory-backed does not reinstate the sufficient condition claim. It does not ensure that if a specifically causal law is 'applied', it must provide an explanation of what falls under it. And it was the purpose of my discussion of the special, experimental case to show that this *general* claim of covering law theory in its causal version cannot be sustained.

Our investigation has, in fact, shown that there are *three* quite different cases to be distinguished when we ask about the nature of 'causal connexion'—or, at any rate, there are three different ways an alleged causal connexion might have to be argued for. For the connexion could be established by reference to manipulative experience, by reference to a logical connexion in terms of some general theory, or by reference to

other conditions in a determinate situation which allow the judgement that a certain condition was crucial (both necessary and important).[1] The third way, which requires neither prior experimental nor theoretical knowledge of such connexions, is the standard historical case. Such dicta as F. S. C. Northrop's that "causal necessity or determinism in history is only possible in a deductively formulated social science which has a theoretical dynamics" must be regarded as the recommendation of a reformer rather than an account of the way causal inquiry in history actually goes.[2]

It may be worth pointing out in this connexion that causal *laws*, as well as particular, historical causal connexions, may sometimes be established without either experimental or theoretical justification. Indeed, the relation of 'support' between laws and the particular connexions falling under them, is at times precisely the *opposite* of the one envisaged by covering law theory; for in many cases discovery of individual causal connexions *precedes* the formulation of causal laws, the laws—shocking though it may be to say it—requiring prior knowledge of the particular cases, rather than the cases requiring support of the covering causal law.

How, for instance, might we in practice arrive at a causal conclusion like 'Speed causes road accidents'? Would it not be *by generalization from a number of particular causal diagnoses* of the form: 'The cause of this accident was excessive speed'? The general causal statement is just the sort of thing that a public safety officer might use as a warning, and it could not properly be said unless he could point to a number of cases on record, each standing on its own logical feet—i.e. to individual causal connexions independently validated. Perhaps the same law could have been reached experimentally (which, in this case would be a rather cruel business), or even derived from theoretical knowledge (which is, in this case, unlikely). But in at any rate a great number of contexts where we should be

[1] As the discussion of section 6 will show, this threefold distinction does not coincide with Collingwood's division of 'cause' into three 'senses'.

[2] *The Logic of the Sciences and the Humanities*, London, 1947, p. 260.

likely to *use* such causal laws, the laws not only *could*, but *would*, be generalizations from knowledge of particular causal connexions arrived at by an exercise of judgement. We should only advance to asserting the law in addition to the individual diagnoses if the same cause turned up repeatedly in the kind of investigation concerned.

In *The Problem of Historical Knowledge* Mandelbaum asserts that "the formulation of scientific laws depends upon causal analysis" rather than causal analysis upon laws[1]—a claim which both Hempel and Gardiner have attacked as a naïve attempt to ignore what Hume proved about causation.[2] It should be clear that my own claim here is quite different from this. It is limited to the kind of causal laws exemplified above; and such laws would scarcely find a place in a list of the discoveries of, say, chemists and physicists. They might, however, appear among the findings of the *social* sciences; and it would not be very surprising to come upon an article in a medical journal assembling evidence by way of cases, independently judged, in support of an assertion like 'Injections cause tumours' (for in spite of the bad jokes commonly made at its expense, medicine is not *just* a practical science). An exactly parallel case in history would be a law like 'Tyranny causes revolution'. Such a 'law' would almost certainly be a causal *generalization*.

The suggestion of generalization from cases independently discovered comes out even more strongly when we consider laws of the form: 'The cause of y is x' (where these symbols stand for types, not particulars). For it is difficult to see how this stronger form of causal law could be established experimentally; and in most cases, theoretical support would not be available to show that the effect cannot happen without the indicated cause. One of Collingwood's examples, 'The cause of malaria is the bite of a mosquito', shows how such theoretical support may sometimes function, for it is, in this case, our general knowledge of the nature of the disease, and the way

[1] pp. 236–8.

[2] Gardiner, op. cit., p. 84; Hempel, op. cit., p. 461; Crawford, op. cit., p. 164.

the virus must reach the blood-stream, that allows us to regard the bite as a *generally* necessary condition. But what about 'The cause of road accidents is speed', or 'The cause of war is greed'?

It seems to me that where no theoretical backing is available for them, such 'laws' can only be interpreted as generalizations, and perhaps not even as universal in intention. They merely summarize a trend, observed in the particular cases, toward the isolation of one sort of condition as especially noteworthy. The law, 'The cause of malaria is the bite of a mosquito', tells us there is only one way to get malaria. But the 'law', 'The cause of road accidents is speed', cannot plausibly be interpreted in this way; it tells us only that speed is a particularly common or important condition of such accidents. If this is so, however, the explanatory force of the law is obviously nil when we come to investigate a particular accident, for we have to discover independently whether in that particular case the usual cause was operative or not. Such a law can be no more than suggestive in the search for the actual cause; it merely reminds the historian that (e.g.) on many occasions the cause of war has been found to be greed, so that it is worth his while to be on the lookout for this factor as a possible cause.

It is worth noticing that if laws of the form 'the cause of y is x', strictly interpreted, *were* used by historians in giving their explanations, we should have to say that the historian would know the explanation of what he studied without bothering to find out by historical research what the antecedent conditions actually were. For the existence of the causal condition could simply be retrodicted by means of the law—as we should have no hesitation in doing, for instance, in the malaria case. In the historical example discussed above, the most that would be left for the historian's investigation of the particular case would be the detailed description of the greed which caused this particular war. But this of course bears no resemblance to the problem which has to be solved in typical historical cases. For even if the historian should *find* greed

among the antecedents of a particular war, he would *still* not know the explanation of the war in question; he would *still* have to ask whether greed was in this case the cause.

Laws of the form, 'The cause of y is x', are in fact seldom likely to be available to the historian; they are certainly less likely to be known than laws of the form, 'X causes y'. Since even where they were available, they would have a very dubious explanatory force, this need not be thought to create any difficulty for the giving of causal explanations in history—a fact sometimes lost sight of in discussions of the special problems of causal inquiry in history. M. R. Cohen, for instance, points out that just as we cannot ask for *the* cause of disease, so we cannot ask for *the* cause of historical phenomena like trade disturbances; for the class of things in question, he says, is too heterogeneous for us to expect to find a common cause.[1] In the light of what has just been said, however, it will be seen that this, although it may be true, is no problem whatever for an historian who wishes to explain a particular trade disturbance.

Nor would the explanatory force of laws of the kind discussed be increased by framing them in terms of a plurality of causes. Perhaps an historian would not regard it as part of his proper task to give an answer to a question like 'What are the causes of war?' Yet it might very well be regarded as belonging to the sphere of the generalizing social sciences. Such a case, however, would illustrate very badly the general positivist thesis regarding the proper relationship between historian and sociologist: that the historian digs up facts, passes them to the social scientist so that he can make laws out of them, and return them for application by the historian in particular explanations. For in the case envisaged, the 'facts' which the historian would deliver for the purpose of generalization would already be explained: they would consist of particular explanations of particular wars. What the generalization would add to the historian's diagnoses is merely to elicit any general trend there may be toward the selection of certain

[1] 'Causation and its Application to History', *Journal of the History of Ideas*, 1942, p. 17, n. 2.

conditions as causes. It is not to depreciate the usefulness of such generalizations to point out that the resulting law can scarcely provide the justification for the individual explanations upon which it rests.

5. *Misgivings about Causal Language in History*

In the light of the foregoing discussion, what can be said to ease the misgivings of those who question the propriety of causal terminology in historical writing? It seems to me that the objections of both the opponents and the supporters of the covering law model owe a great deal of their plausibility to their failure to take into account some of the features of causal inquiries which have just been examined.

Is 'cause' a loose or vague term? Those who, like Beard and Vagts, have urged its abandonment have generally rested their case on the fact that singular causal statements made by historians commonly come to grief when they are generalized as causal laws. They see that from most of the conditions which historians designate as causes, the effect could not safely have been predicted. But why should they have expected otherwise? It can surely only be because the illicit assumption is made that a cause, when fully stated, must always be a sufficient condition of its effect. This assumption has been reinforced from time to time by what philosophers have had to say. Thus Mandelbaum, in a careful, formal statement, defines the cause of an event as "the complete set of those events without which the event would not have occurred, or whose non-existence or non-occurrence would have made some difference to it".[1] But this, as we have seen, is far from being the usual sense of the term in history. Indeed, even in contexts where causal laws are formulated, the notion is not screwed up as tightly as this, since the causes in question are only sufficient conditions, *ceteris paribus*.

There are two ways in which reformers might hope to deal with the supposed 'looseness' of causal language in history. It has been proposed by O. Neurath, for instance, that historians should abandon the claim that they discover causes; they should say only that certain events and conditions 'arise out of' other events and conditions.[1] A quite different suggestion may be gleaned from the view of those who, like M. R. Cohen, regard a 'tight' sense of the word 'cause' as strictly correct, but who go on to allow that there is a looser sense which is appropriate in "popular discourse".[2] The suggestion would seem to be that the more carefully, i.e. 'scientifically', history is written, the more likely it is that we shall find 'cause' used to designate a set of sufficient conditions.

[1] 'Causal Analysis in History', *Journal of the History of Ideas*, 1942, p. 39.

Should a 'tight' sense of the word be adopted in order to improve the precision of historical writing? There are right and wrong reasons for resisting such a programme. One of the wrong ones was given by Collingwood when he attacked the tight sense as self-contradictory (he called it 'Sense III', and claimed to find it in the literature of the theoretical sciences of nature). Collingwood's argument is a development of Russell's complaint that in order to be strictly sufficient for predicting the effect, cause and effect must be *coincident* in space and time—so that the cause becomes identical with the effect, and hence no cause at all.[3] But the tight sense defined by Mandelbaum and Cohen would be subject to Collingwood's and Russell's strictures only if 'sufficient' were defined in a metaphysically absolute way inappropriate to a 'scientific' use. All we need mean by the set of sufficient conditions (as I suggested in Chapter II), is those from which, on the criteria we ordinarily accept as appropriate in the subject-matter concerned, the event could justifiably have been predicted.

The right reason for rejecting the suggestion is pragmatic;

[1] 'Foundations of the Social Sciences', *International Encyclopedia of the Unified Sciences*, Chicago, 1944, vol. 2, No. 1, pp. 20–21. Gardiner mentions this, op. cit., p. 9.

It is interesting to note that in a second bulletin of the Social Science Research Council on theory of history, historians are reported to be "in general agreed that it would be extremely difficult to devise workable substitutes for such terms as 'cause' and 'causality' " (*The Social Sciences in Historical Study*, New York, 1954, p. 12).

[2] 'Causation and its Application to History', *Journal of the History of Ideas*, 1942, p. 19.

[3] Russell, *Mysticism and Logic*, p. 187; Collingwood, *Essay on Metaphysics*, pp. 314–15. Gardiner notes this argument, op. cit., p. 8.

for the so-called 'loose' sense of 'cause' already has a useful employment in history. Historians use the notion to draw attention to some necessary condition which, for one reason or another, is considered important in the context of writing. To say that the word is ordinarily used 'vaguely' or 'loosely' is thus misleading. We should say rather that the term has its own peculiar logic, which happens to be different from that invented for it by some philosophers. It cannot be tightened up in either the metaphysical or scientific ways without changing its function; and the reformed notion could not, in any case, be employed without bringing historical narrative to a halt. Nor need we be tempted by Neurath's curious linguistic recommendation; for this loses its point if we recognize the fact that there is nothing *wrong* with calling anything less than a set of sufficient conditions a 'cause'.

The objection that causal analysis in history is not scientific enough thus arises, at least in part, out of a failure to appreciate the point of causal language. What about the counter-objection that explanation in terms of causes is *too* scientific? According to Oakeshott, the search for causes is anti-historical in conception; it belongs to the practical (for him 'scientific') problem of prediction and control. To pick out causes is somehow to falsify the concrete nature of the historian's subject-matter; to divert attention from the actual course of events which it is the historian's business to reconstruct from the evidence. In taking such a view, Oakeshott has the qualified support of some members of the historical profession. Professor Renier, for instance, believes that "the normal interpretation of causation contains dangerous elements which threaten the basic quality of the historical narrative".[1] And Teggart, too, regards historical narration and the search for causes as incompatible tasks—although, being a campaigner for 'scientific' history, this leads him to take a jaundiced view of narrative rather than of causal analysis.[2]

What really bothers Oakeshott comes out more clearly if we

[1] *History, Its Purpose and Method*, London, 1950, p. 181.
[2] 'Causation in Historical Events', *Journal of the History of Ideas*, 1942, p. 6.

ask what he regards as the proper historical alternative to causal explanation. As we noted in Chapter III, he does not deny that the historian explains at all. It is rather that "history accounts *for* change by means of a full account *of* change. The relation *between* events", he says, "is always other events, and it is established in history by a full relation *of* the events." According to Oakeshott, "The conception of cause is thus replaced by the exhibition of a world of events intrinsically related to one another in which no *lacuna* is tolerated".[1]

That something correct and important is here being said I should not want to question. But, in the light of my discussion in the present chapter, the sharp contrast which Oakeshott draws between causal explanation and discovering the actual course of events is surely misconceived. Oakeshott assumes that to assign a cause to an event is to bring that event under a law. True, he does not explicitly say this, but he does define 'cause' for scientific purposes as "the minimum antecedent circumstances sufficient to account for an *example* of a *generalized* result".[2] And by contrast with the inapplicability of the causal category to history, he says that it is "possible in science only because the world of scientific experience is a world, not of events but of instances".[3] He concludes: "the strict conception of cause breaks down as the explanatory principle in historical experience, because it contradicts the postulated character of the historical past. . . ."[4]

It is the relegation of the discovery of causes to the world of 'instances' which reveals the source of the difficulty. For if all causal inquiry was like that experimentation which yields knowledge of causal laws—general causal relationships—Oakeshott's criticism would have some force. But, as I have shown, to give and defend a causal explanation in history is scarcely ever to bring what is explained under a law, and almost always involves a descriptive account, a narrative, of the actual course of events, in order to justify the judgement

[1] Op. cit., p. 143.
[2] Op. cit., p. 211. My italics.
[3] Op. cit., p. 127. Gardiner notes the objection briefly, op. cit., p. 30.
[4] Op. cit., p. 133.

that the condition indicated was indeed the cause. Finding the cause of an historical event is thus no *substitute* for knowing exactly what happened—which Oakeshott rightly regards as an essential mark of historical inquiry. Indeed, it involves a judgement which depends on knowing just that.

It is true that in the explanatory statement which arises out of this detailed knowledge, one or a few conditions are picked out as 'the cause'. But this does not amount to opening a '*lacuna*'; nor does it confer upon the causal condition any mysterious ontological priority.[1] It merely satisfies certain pragmatic criteria of importance which are superimposed upon, but do not replace, the inductive requirement that the causal condition be a necessary one. If Oakeshott were to object further (as I think he would) that to select any conditions at all as of more importance than the rest is to allow an intrusion of *the practical* into an 'historical world' where such considerations do not belong, I can only resist his *a priori* conception of what the historian should be trying to do when he explains a thing—i.e. write history from no point of view whatever.[2] He is doubtless right to insist that *all* the conditions of an historical event are necessary, and that the making of distinctions on grounds of importance must not be allowed to obscure this truth.[3] But that necessary conditions are all necessary is, after all, no more than a (perhaps useful) tautology.

A misunderstanding of the difference between causal laws and causal analysis seems to me also to lie behind Collingwood's restriction of the *sense* of 'cause' which is properly employed in history. Like Oakeshott, Collingwood believes that in using the notion there is a danger that the historian may be tempted to slide away from the proper historical task into something like scientific interests. But this will only happen, he contends, if the historian uses the word in the

[1] Renier deplores the "feeling that a cause occupies a position superior in reality to its effect" (op. cit., pp. 181 and 183–4).

[2] I offer further reasons for denying that the historian's approach is divorced from a 'practical' one in Chap. V, section 4.

[3] ". . . every historical event is necessary, and it is impossible to distinguish between the importance of necessities" (op. cit., p. 129).

wrong sense. For according to Collingwood, there are three senses of 'cause', and the only proper use of the word in history is in Sense I: the sense in which one person can cause another to act in a certain way by providing him with a motive for acting so.[1] Sense II he defines as "an event or state of things by producing or preventing which we can produce or prevent that whose cause it is said to be". Sense III he defines thus:

> . . . that which is 'caused' is an event or state of things, and its 'cause' is another event or state of things standing to it in a one-one relation of causal priority: i.e. a relation of such a kind that (*a*) if the cause happens or exists the effect must also happen or exist, even if no further conditions are fulfilled, (*b*) the effect cannot happen or exist unless the cause happens or exists, (*c*) in some sense which remains to be defined, the cause is prior to the effect. . . .[2]

These three senses Collingwood regards as related by historical derivation from each other. Sense II is derived from Sense I by extending the notion of an effect from the actions of human beings to the behaviour of anything whatever. Sense III is derived from Sense II by tightening the connexion between cause and effect to one of logical necessity, and making the relation between cause and effect one-one.

Collingwood represents Sense II as the one appropriate for the practical sciences of nature; it is the sense employed in the discovery of causal laws by experimentation (as discussed in section 2 above). To say that the historian never uses the notion of 'cause' in this sense is, perhaps, a pardonable exaggeration; for, as I have argued, it is true that his explanations are scarcely ever the applications of causal laws. Yet, as I pointed out earlier, there is a weak as well as a strong interpretation which might be placed upon Collingwood's criterion of the 'handle', and in the weak interpretation this criterion is very often applied by the historian in selecting one from a number of necessary conditions as important. Collingwood's

[1] This sense is further discussed in Chap. V, section 7. I do not here question Collingwood's speaking of 'senses' of the word 'cause', although it seems to me preferable to speak of ways of establishing a causal connexion.

[2] *An Essay on Metaphysics*, p. 285–6.

Sense II is therefore open to further analysis. In so far as he means a cause which is sufficient, *ceteris paribus*, then this sense is an uncommon, uncharacteristic one in historical studies. But if he simply means a cause selected because it is a manipulable necessary condition in a determinate situation, then it is in quite common use. Let us call the latter, historical sense, Sense II*a*.

Like Oakeshott, Collingwood is suspicious of any attempt to represent the historian as applying knowledge of general causal connexions in historical cases. It is part of his argument against the historical propriety of Sense II that in this sense "every causal proposition is a general proposition", whereas in Sense I every one is individual.[1] In Sense II, he concludes, "it would be nonsense to inquire after the cause of any individual thing as such". While I see no reason to agree with the latter conclusion, I think it is true, at any rate, that in Sense II*a*, a causal proposition need not assert a causal connexion which can be generalized.

Collingwood's Sense III is a very queer fish. As I have already remarked, it involves a sense of 'sufficient condition' which is tightened up in a metaphysical way. It also, as stated, makes the cause retrodictable from the effect. At the same time, causes and effects are represented as coincident in space and time. We need have little hesitation in following Collingwood in denying the usefulness of this notion in history—or in other studies either, for that matter. In fact, as Collingwood more than half admits, it is a philosopher's invention; it is a bogus sense of the word 'thought to be' used in the theoretical sciences of nature. There is perhaps some excuse for the philosophers concerned in the fact that such sciences do enunciate simultaneity laws, and that, relative to some theory, and in the light of certain other conditions, it may be logically impossible for an effect not to follow a cause. But as Collingwood states Sense III, it is, as he says, self-contradictory.

In defining it as he does, however, Collingwood fails to prove the point he seems to want to make about the impro-

[1] Op. cit., p. 308.

priety of the causal concept outside the spheres of individual human relations and the practical sciences. For there is a perfectly proper use of 'cause' in the *applied* theoretical sciences. It is the sense brought to our attention by Ryle's doctrine of 'theory-loaded' causal terms. The sense in which a wound may be the cause of a scar is not included in Collingwood's threefold classification. In such a case, the relationship between cause and effect clearly falls short of the requirements of Sense III, while going beyond Sense II by virtue of the explanatory force of the causal assertion. Let us call this further use of the term 'Sense III*a*'. I call it this because it is the proper substitute for Collingwood's Sense III when we are applying theoretical science. It might, however, have been almost as appropriately designated Sense II*b*, since the requirement that there be a theoretical connexion between cause and effect would generally be applied *as well as*, and not instead of, Collingwood's criterion of the 'handle'. It seems to me that in his anxiety to discredit the metaphysically exaggerated Sense III, Collingwood overlooked this important 'scientific' sense of 'cause' altogether. And in doing so, although he would not have liked this suggestion, he failed to give a complete account of causal explanations in history either; for his classification leaves no room for the explanations historians may—perhaps only rarely—give in the light of theoretical knowledge derived from the social, or even the natural, sciences.