
UNIT 2 CAUSATION

Structure

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2.1 INTRODUCTION

All scientific inquiry begins with the question ‘why?’ Why does oil float on water? Why do we have earthquakes? Why do famines occur? Why did England industrialise before Germany? Why was India colonised? In one form or another all disciplines ask the question ‘why?’ History is no exception. Like other natural and social sciences it too addresses the ‘why’ interrogative. Even as historians study the past they try to explain why a particular event or phenomenon did or did not occur. They ask, for example, why did the Roman Empire decline? Why did World War I occur? Why did the British transfer power to India in August 1947? Why did Gandhi withdraw the Non-cooperation Movement? The writing of history thus begins with why questions. However, unlike many other social sciences history does not focus upon generalities. It does not explain a category of events but analyzes a specific occurrence. Instead of offering an explanation for why de-colonisation occurs, or why civilisations decline, or why revolutions occur, it examines why the British left India in 1947, why the Minoan population decimated, why the socialist revolution occurred first in Russia. Historians, in other words, explain the occurrence of specific events. In place of treating the event as an instance of a general category it perceives it as, to borrow a phrase from Patrick Gardiner, a unique particular. Consequently it concentrates on those dimensions that are specific to the given event and offers an account that explains fully why the event *E* happened when it did.

2.2 WHAT IS CAUSALITY?

Even though the event is taken to be a unique particular, historians nevertheless endeavor to explain its occurrence. The analysis of an event as a particular does not undermine either the effectiveness of the offered explanation or its claim to represent the truth. Like other social scientists, historians offer a complete explanation of the phenomenon under consideration, and they do this by determining what caused that event to occur. Search for causes is thus central to historical analysis. Up until the eighteenth century philosophers and historians commonly believed that the cause must be an antecedent event - one that occurred prior to the event that is being explained; and that the antecedent event must be regularly associated with the effect. However, following upon the work of John S. Mill, the cause is no longer identified as an event that occurs before. Rather it is conceived as a condition or a set of conditions that are always present when the event *E* occurs, and always absent when *E* does not occur

The cause, in other words, is a condition that is both necessary and sufficient for bringing about the given event *E*. It is said to be necessary because its absence implies the

absence of the effect E , and it is sufficient because its presence yields the given result E . If a study shows that individuals with Vitamin A deficiency suffered from night-blindness, and in all those individuals where Vitamin A was present in sufficient measure, night-blindness did not occur, then all else being the same, we can say that deficiency of Vitamin A is the cause of night-blindness. We can designate Vitamin A as the cause because its absence meant night-blindness and its presence meant the absence of the effect – namely, night-blindness.

Three points need to be emphasised here. First, the relationship of necessity is significantly different from that of sufficiency. Second, the cause is considered to be a condition that is both necessary and sufficient; and third, constant conjunction is not an adequate indicator of a causal relationship. If in a given instance cardiac arrest leads to the death of a person, we may say that heart failure was a condition that was *sufficient* for producing the effect – namely, the death of a person. However to assert that cardiac arrest was a *necessary* condition for the death of the individual we need to show that the absence of cardiac arrest would have meant absence of the effect - death. If death could have occurred due to some other condition – for example, liver failure or hemorrhage, then cardiac arrest may have been a sufficient condition but it cannot be designated as a necessary condition for the occurrence of the event - death of the individual. Since the person could have died due to the presence of other conditions the absence of cardiac arrest would not have prevented the effect. Hence, it cannot be a condition that is necessary for the event under consideration. What is being suggested here is that **the relationship of necessity is different from that of sufficiency, and in philosophies of science the cause has been conceived as being both a necessary and a sufficient condition.**

If the cause is a necessary and sufficient condition, it implies that it is regularly associated with the given effect. That is, it is always present when the effect E occurs, and always absent when the event E is absent. **Constant conjunction is thus an important observable attribute of causation.** Further, the causal condition is almost always antecedent to the effect. However, this does not mean that a condition that is regularly observed before the event E takes place is the cause of the latter. Constant conjunction and spatial contiguity are features of a cause-effect linkage but the cause cannot be identified on this basis alone. On a record, songs appear in a specific sequence. However, the song that comes first is not the cause of the one that follows. Likewise, lightning may be regularly observed before we hear a thunder but this does not mean that it is the cause of the latter. It is possible that both lightning and thunder are the visible effects of an altogether different cause. What needs to be underscored here is that regular association is not by itself sufficient for claiming that the condition that is observed first is the cause of that which comes after. To show that something is the cause of an event we need to show that its absence would have implied the absence of the event being explained.

Similarly, listing events in the correct sequential order does not also provide an explanation of an event. We may enumerate in the correct time-sequence all that happened on a particular day but that may not offer an explanation of why E happened. For instance, simple listing of events that happened one-after-another may give us no indication why the concerned person met with an accident or fell ill. We may learn how a particular event occurred – e.g., the correct sequence in which things occurred when the accident took place but it cannot provide an explanation as to why the accident occurred or why the person was fatally injured. Likewise, the historian may place events that occurred from January 1947 to August 1947 in the proper time sequence, but these would not constitute an explanation of why the British left India in 1947. Once again, explanation or answering the question why requires something more than the mere sequencing of

events one-after- the-other in the correct order. At the very least it requires that we show that the presence of a particular condition, that may have come before, yielded that effect and that the absence of that condition may have meant non-occurrence of that event. In brief, identifying the cause is not a matter of placing things one-after-another. One needs to locate a condition that was necessary: that is, a condition without which the event may not have occurred.

2.3 SOCIAL SCIENCES AND CAUSATION

In the natural sciences researchers conduct controlled experiments to determine what is the necessary and sufficient condition. By controlling and manipulating one condition while all others remain exactly the same they determine the impact that the condition has on the effect. If the elimination of condition *C* results in the absence of *E* while all else is the same, then *C* is said to be the cause of *E*. In the social sciences it is not always possible, or even desirable, to conduct experiments under controlled conditions. For example, if we are analysing the cause of communal violence that occurred in a given region, it is not possible to set up a controlled experiment. Since the event that is being explained has already occurred, the experiment cannot be conducted in its natural setting. The experiment can only be re-created in an artificial or laboratory condition and it is indeed questionable whether we should produce conditions in which individuals inflict physical harm upon each other. In addition to it, there is the difficulty of finding exactly similar groups of individuals whose behaviour is replicable. Given all these considerations, conducting controlled experiments poses innumerable problems in the social sciences, and researchers in these disciplines do not rely on this technique for arriving at causal explanations.

Social scientists identify causes by using what John Stuart Mill called the Method of Agreement and the Method of Disagreement or Difference. The Method of Agreement draws an inventory of all those circumstances/conditions that are present whenever the event *E* occurs. It identifies a condition that is invariably present in all instances where *E* has occurred. The method of Difference, on the other hand, searches for that condition in terms of which the antecedent circumstances and the phenomenon differ. That is, a condition whose absence translates into the absence of that event. Social scientists combine these two methods to determine what caused *E* to occur. They pinpoint the cause by studying a number of positive and negative instances: instances where event of the type *E* occurred and situations where *E* did not occur. If in all cases where *E* occurred condition *C* was always present and in all cases where *E* did not occur condition *C* alone was absent, then *C* is regarded as the cause of *E*.

To take an example: if the analysis shows that in all instances where factionalism existed Congress lost elections and in all those states where the party was free of factional politics, it won the support of the voters, then it can be said that factionalism was the cause of party losing elections. The causal condition is identified here by studying contrast cases – contexts where Congress won elections and states where it lost. It is of course assumed that the states compared differed only in this one aspect and that all other prevailing conditions were more or less the same. If, for instance, factionalism is found in states where Congress has been loosing successive elections or where opposition parties have been increasing their vote percentage over the years, then factionalism cannot be identified as the cause. Alternately, if the states in which Congress won elections were marked by a high concentration of rural population and there is previously some evidence that these are sections that have supported the Congress in the past, then again one cannot easily conclude that factionalism is the cause of winning elections. And, if the states in which it lost elections were also those that had witnessed a spate of communal violence, then again, the disparity in initial conditions existing in the two kinds

of states would prevent one from inferring that factionalism is the causal condition. The existence of one common condition – namely, factionalism within the party - in states where it lost elections and the absence of that one condition in states where it won is not in itself sufficient for claiming that factionalism is the cause of lost electoral support. The election may have been won and lost due to completely different causal conditions. Hence, the crucial factor is that all other conditions in the compared situations must be “at par”. If the compared units differ in significant respects then it is not possible to infer with any degree of certainty what the causal condition is.

It follows from the above discussion that in social sciences a cause is identified by studying a number of situations that are similar in terms of their antecedent conditions but different with regard to the outcome or phenomenon that occur. However, what happens when comparable contexts are not available? What happens when we study and try to explain events are unique? How do we then identify a cause? One option is to say that in all such cases there is no satisfactory way of identifying the causal condition. Indeed several philosophers have, on account of the distinctiveness of the object and purpose of inquiry in history, argued that we abandon the search for causes. The natural sciences, they maintain, are generalising sciences. They aim to discover law-like generalisations. History, by comparison, focuses on that which is unique to the case being analysed. Further, natural sciences seek to gain knowledge with a view to enhancing technological control. Causes are sought not only to explain why something happened but also to predict circumstances in which we might expect similar events to occur and what might be controlled – manipulated or altered – to ensure that the said event does not occur. History, on the other hand, seeks to *understand* why the event occurred. It tries to make sense of a phenomenon by identifying the meaning that it had in a given historically defined context. Since its aim is to enhance communication and interaction, it is permeated by a different knowledge interest and therefore relies on a different methodological orientation. In place of identifying a condition that causes or produces a given effect it makes sense of the event by treating it as an expression of a specific world-view. It, in other words, explores the link between life, expression and a historical *weltanschauung* and understands rather than explains a given event.

Here it needs to be emphasised that determining the cause of an event that is unique, or a one-time occurrence, poses a serious challenge. Historians, who affirm the relevance and importance of causal form of inquiry, have met this challenge by redefining the idea of cause. In particular they have attempted to dissociate explanation from prediction and argued that the cause refers to a condition that made the *crucial difference* in a given situation. While the cause was previously associated with the assertion, ‘whenever *C* also *E*’, they claim that the identified cause *C* only explains a given event *E* rather than all events of the type *E*. In saying that the cause explains fully why a specific event occurred at a given time and place, they suggest that historians search for a condition that was necessary *under the circumstances*. They make, what might be called, singular causal assertions.

2.4 HISTORIANS AND CAUSATION

In offering singular causal assertions historians separate explanations from predictions. They argue that a complete explanation does not entail accurate predictions. In fact several philosophers of history maintain that explanation and prediction are two different kinds of activities, involving different kinds of evidence and justifications. Prediction assumes regularity and recurrence of sequence. We can say that the sun will rise in the East tomorrow and the day after that only because we believe that the structure of the universe and the laws by which it is governed will continue to operate unchanged. It is the assumption that patterns and regularities observed today will recur and repeat

themselves that allows us to predict the future course of events. However, this assumption is irrelevant for stipulating causal connections. We can determine with reasonable accuracy what caused *E* to occur even when *E* is a one-time occurrence, or a unique particular. In the absence of the presupposition that social reality will remain unaltered and existing patterns will recur we cannot claim that whenever *C* occurs, *E* will follow.

A distinction is here made between explanation and prediction. In empiricist theories of science, explanation and prediction are inextricably linked together. Indeed one is considered to be a condition of the other. When it is said that *C* is the cause (necessary and sufficient condition) of the event *E*, it is simultaneously suggested that whenever *C* is present *E* will necessarily follow. And, *vice-versa* a successful prediction is considered to be an indicator of the accuracy of the explanation. Thus, explanation and prediction are taken as two sides of the same coin. In history, particularly, this proposed link between explanation and prediction is questioned. Instead it is argued that causal inquiry and explanation is distinct from the act of prediction. Complete explanation does not entail a successful prediction and *vice-versa* a successful prediction is no indication of the accuracy or the truth of the offered explanation. We may, on seeing dark clouds in the sky, predict accurately that there will be rainfall in the next twelve hours. But making a successful prediction here does not give us any explanation of why this event occurs. Similarly, on seeing red spots on the face of a child we may accurately predict that he is coming down with measles. But once again making the correct prediction is no indication of the fact that we have an adequate explanation of this occurrence. The act of prediction is thus different from that of explanation, and historians may not offer predictions but they nevertheless can, and do, provide complete explanation of why a particular event occurred.

By de-linking explanation from prediction, historians not only challenge the 'general law model' of explanation used by positivists, they redefine the concept of causation. In place of conceiving the cause as a necessary and sufficient condition they see it as a condition that is *necessary under the circumstances*. The need to visualise the causal condition as one that is necessary under the circumstances is further reinforced by the realisation that most historical events are over-determined. That is, they are characterised by the presence of more than one causal condition. Since each of these conditions could have independently yielded the same result, the analyst cannot specify a condition that was necessary in absolute terms. All that can be said is that it was necessary under the circumstances.

Let me elucidate this further with the help of an illustration. If we know that rioting mobs are headed towards an assembly hall with the intention of burning the place, and around the same time lightning could strike the building, thereby burning down the hall, then we cannot say which was the necessary and sufficient condition for the burning of the hall. The assembly hall could have been burnt by the violent crowd as well as by lightning. If the crowds had not planned on this action, the lightning would have burnt the hall and, *vice-versa*, even if lightning had not struck the building the marauding crowds would have yielded the same result. Thus the absence of one condition would not have meant the absence of the effect – namely, burning down of the hall. In situations of this kind, which are marked by the presence of two or more conditions each of which could have produced the same result, we cannot identify the necessary moment. All we can do is to say which condition intervened first. If lightning struck before the crowds could embark on their action we can say that it was the condition that was *necessary under the circumstances*.

Situations that historians analyse are, it is said, of a similar kind. Being unique and most often over-determined, the researcher can at best identify a condition that was necessary

under the circumstances. For example, based on existing understanding of the processes of de-colonization and a survey of available documents, the historian may conclude that popular assertions against the Raj as well as adverse balance of payments were making it extremely difficult for the colonizing power to continue ruling over India. A calculation of the British military and strategic interests in the region also favoured the transfer of power to India. Since each of these conditions pushed in the same direction what might we identify as the cause of British leaving India, and more specifically, of British leaving India in August 1947? The historian seeks to answer this question by pinpointing a condition that made the *crucial difference* in the given conjuncture. Available documentary evidence is drawn upon to assess which of these conditions was perceived by the British as being most significant, and which generated pressures of a kind that made the administration of the colony extremely difficult, if not also unviable at that point.

In identifying the causal condition that was necessary under the circumstances evidence is drawn from within the case. Comparisons are made with analogous situations before and perceptions and actions of different agents are used to assess the relative significance of different existing conditions. Objective conditions and subjective reasons are thus woven together to determine what made the crucial difference. Since most historical analysis draws upon purposes and actions of agents as well as operating external conditions it is sometimes said that historians explain a given event /phenomenon by describing how it happened. That is, they answer the ‘Why’ interrogative by analyzing what happened and how it happened. Two points need to be made in this regard. First, as was mentioned earlier, merely placing events in a sequence does not provide an explanation of an event. Telling a story with a beginning, middle and end is therefore never enough. At the very least the historian needs to identify the configuration of external material structures within which particular actions are conceived and performed, and within which they yield a specific result. Second, and this is of the utmost importance, an exhaustive description of all possible conditions and range of actions does not constitute a causal explanation. The latter requires that we determine a condition that was *necessary* at least under the circumstances.

The difference then between simple story telling and causal analysis of a historical event is that the latter, unlike the former, focuses upon what made the crucial difference. It does not merely link the different moments together in a way that makes sense but goes a step further. It identifies a condition in the absence of which the event may not have occurred at the precise time that it did. In other words, it locates a necessary moment. The necessary moment may be a single condition or a part of a complex of conditions. Analysing the issue of transfer of power to India in 1947, a historian may argue that mutiny in the naval ratings made the crucial difference. That is, it was the causal condition – the necessary moment in the absence of which transfer of power may not have taken place at that time. Alternately, the historian may argue that mutiny in the naval ranks was the necessary moment of a set of popular mobilisations and these collectively yielded the result – namely, transfer of power.

When historians endorse the latter path they define the cause as an INUS condition. That is, the cause is considered to be a condition that is an *insufficient* but *necessary* moment of a complex of conditions that is *unnecessary* but *sufficient* for producing the given event. Let me explain it further. In identifying mutiny in naval ratings as the cause all that the historian is saying is that this condition made the crucial difference. Had it not been for this mutiny transfer of power may not have occurred in August 1947. Further, the mutiny in naval ratings yielded this effect in association with other popular assertions, such as, the Quit India movement and peasant rebellions. Collectively these constituted a complex of minimal sufficient condition and in this complex the

mutiny in navy was the necessary moment. However, this complex of conditions cannot be regarded as necessary for the event (transfer of power). Had this condition not prevailed, adverse balance of payments or calculation of strategic interests may still have led to the British leaving India, albeit not in August of 1947. Consequently, popular mobilisations cannot be regarded to be a complex that is necessary in absolute terms. All we can say with confidence is that under the given circumstances it was sufficient to bring about that result. The mutiny was, in this way, a necessary moment of a complex of conditions that are collectively unnecessary. The same event could have been produced by another set of conditions but at this time the mutiny along with other popular mobilisations was sufficient for producing the result – namely, transfer of power to India.

What bears some repetition here is that historians redefine the idea of causality. Instead of treating the cause as a necessary and sufficient condition they regard it as an INUS condition or a condition that is necessary under the circumstances. The idea of causality is conceptualised in this form because the events that they deal with are taken to be unique occurrences, constituted by a conjuncture that is specific to that context. And the context itself is characterised by the presence of several conditions each of which could produce the same result though not in the same way or at the same time. The redefinition of cause does not however affect the explanatory potential of the inquiry. To put it in another way, even though the causal condition is seen as being necessary only under the circumstances, or in conjunction with other conditions, nevertheless it explains fully what happened and why it happened. It does not allow us to predict what might happen in other similar circumstances with any degree of certainty but it does enable us to explain the event that occurred.

When the cause is defined as a necessary moment of a complex of condition or as a condition that is necessary under the circumstances, it is assumed that the historian is only explaining why the event *E* occurred in this instance. The explanation is complete but it is offered *post-hoc* (i.e., after the event has occurred) and no prediction follows necessarily from this explanation. To use an example given by J.L. Aronson, ‘Suppose we had a gun that shot bullets through a force field at a screen, what is special about the force field is that it is composed of force vectors that change with time in a completely randomized fashion’. In this situation we cannot predict in advance where the bullet might land, but once the bullet makes it to the screen we can explain as to why it reached in that position. We can, after the event, examine the speed of the bullet, the angle at which the vectors must have been when the bullet hit it, the position of the gun, friction and other intervening elements, and on the basis of these explain why the bullet arrived at the point *P* on the screen. The offered explanation is complete in so far as it provides a satisfactory answer to the ‘why’ interrogative but it cannot help us to predict where the next bullet will arrive on the screen.

Historical explanations are often of a similar kind. They explain fully what happened and why it happened but do not, by and large, predict. Laws may be implicit in the stipulated causal connections but the historian neither “dredges up” these laws nor regards it as his task to do so (see, Dray 1970). Historical accounts do not aim to discover general laws and the causal explanations they offer must therefore be distinguished from predictions. The fact that they do not seek to predict or pinpoint a set of laws and the initial conditions under which they operate does not imply that they offer partial explanations. Contra what is argued in the “Covering Law model” used by Carl Hempel and other positivist philosophies of social science (Hempel 1959), historians explain completely what happened through singular causal assertions.

What needs also to be clarified here is that these singular causal assertions are distinct from explanations involving reasons and purposes. Events that historians study – e.g.,

rebellions, battles, treaties of peace, movements, revolts, etc. – are all outcomes of the actions of individuals and groups. In studying these events historians often make sense of what happened and why it happened by mapping the intentions and motivations of actors. They explain, for instance, the withdrawal of Non-cooperation movement in terms of the intentions of its leaders – in this case, Gandhi. The reasons they accept are at times those that are avowed by the agents themselves, or else, those that can be deduced from the purposes that are either averred by them or purposes that may reasonably be attributed to the agents. Whatever be the basis of identifying the relevant reason what is significant is that events are treated not merely as happenings in the external world, rather they are perceived as performances of particular agents that can be explained by uncovering their reasons and motivations. Such reason-action explanations are frequently treated as being similar to causal explanations and reasons are often confused with causes. It appears that reasons explain by building a link between purposes/motivations and action just as causal explanations link a cause with an effect. However, even though beliefs and motives are often seen as producing a given event it is essential to remember that reasons are not the “right kind of causes” (Ryle 1980:109).

In a causal explanation, causes are external conditions operating in the physical world and the cause is linked to the effect contingently. Reasons, by comparison, are linked internally and the connection between a reason and action is a logical one. For example, when we explain why *A* murdered *B* by pointing to revenge as the motive for this action we suggest an intrinsic link between the motive – reason – and the action – murder. We also assume that referring to revenge as the reason for murder does not require any further elucidation for the latter can follow from the former. While we may need evidence to show that murder was committed by the said person and that he could have had this motivation, the link between motive and action requires no external corroboration. Indeed the action is said to follow from the motive and having this motivation provides good reason for assuming that he could have performed this action. Similarly when we say that the loss of popular support was the reason for the decision to withdraw the strike an internal connection is stipulated between the reason and the action. Further, the postulated connection rests upon the assumption of rational behaviour. It presupposes a background of beliefs that prompt the given action. For instance, the decision to withdraw the strike because it was losing support among the cadre assumes that the leadership considered it desirable to withdraw before the strike fizzles out; or that they preferred to call off the strike so that they do not lose the gained advantage. Such rational calculations of interests is an integral part of reason-action explanation but these considerations are not, and must not indeed be, considered as initial conditions under which certain laws operate.

Reason-action explanations are teleological in nature. Here, the desired end-state that is to be realized through the action is also the motive or the purpose. It therefore logically precedes the action. In a causal explanation, on the other hand, the effect is subsequent to the cause. That is, it comes after the causal condition and it follows it due to the presence of certain conjunctive conditions. Historians, in offering causal explanations seek to identify the set of conditions that collectively yield a given effect; and within that collectivity they aim to pinpoint a condition that made the crucial difference. Such explanations are distinct from explanations based on reasons as well as the covering law model used by the positivists. In addition, as was argued earlier on, these are explanations that tell us why a specific event occurred at a given time. They are, in other words, singular causal statements that seek to explain and not predict future events. The relative neglect of prediction in these explanations however does not weaken these explanations nor does it render them inadequate. The offered explanations are complete and their truth can be debated by the community of historians on the basis of available evidence and documentation.

2.5 SUMMARY

The discipline of history, as other social sciences, constantly seeks the causes which give rise to various phenomena. The search for causes is crucial to historical analysis. The causes are **not** specific events which occur before certain other events whose origins can then be traced back to the former. Rather the causes are conceived as a set of conditions under which particular events take place. These conditions provide both the necessary and sufficient ground for the occurrence of certain events. However, unlike in the natural sciences, the search for causes in history cannot be conducted in a controlled atmosphere as in a laboratory. Instead, the social scientists look for similar and different conditions for the occurrence of an event. In other words, they look for the conditions which are present and those which are absent when an event takes place. Moreover, causes are generally sought to explain a phenomenon and not to predict it.

2.6 EXERCISES

- 1) What is causality? How is it used to explain an event or phenomenon?
- 2) Discuss the different approaches of the natural scientists and the social scientists in seeking the causes of a phenomenon.
- 3) Discuss the method followed in history for establishing the causality and explaining the occurrence of an event.

2.7 SUGGESTED READINGS

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