Rehan Ahmad

Professor Amber Riaz

Phil 331

19th December 2023

Can there be laws in the social sciences like those in the natural sciences? Does it matter? Why or why not?

The question of whether there can be laws in social science similar to those in natural science emerges from the desire to explain individual action which is at the heart of all social sciences. In particular, can we reduce intentional action carried out by agents to causal explanations as found in natural sciences or do these explanations extend beyond the confines of cause and effect? To aim to understand this, we need to understand the nature of natural laws in natural sciences which embody two principles: Firstly, science seeks causal explanations, which necessitate the identification of regularities. Secondly, scientific claims are validated through observation, experimentation, and data collection, and only generalizations with future implications can be tested.

Causation requires laws or regularities to distinguish between causal and accidental sequences. For example, when a match is struck and ignites, we attribute the ignition to the striking because of the regularity that match strikings are generally followed by flames. This pursuit of regularities leads to fundamental laws which are often expressed independently of specific events. David Hume argued that direct observation cannot detect causation, and there is no tangible "glue" attaching a cause to its effects. As such, scientific methods rely on well-established regularities to distinguish causation from correlation often using statistical generalizations. Therefore, laws like Newton's law of gravitational attraction and Heisenberg’s uncertainty principle are statements of constant conjunctions of events rather than strict causal sequence. According to Hume, knowledge of individual causal sequences is justified only if we can predict further effects when observing their causes. Thus, prediction becomes crucial for establishing causal knowledge. In individual cases, our understanding of causation is based on the identification of generalizations refined through repeated observation. Observation serves as the testing ground for explanatory and predictive hypotheses. Hence in natural sciences an “explanation” shows how an event to be explained satisfies a law or regularity.

In the middle of the twentieth century, when empiricist views of theory were common, Carl Hempel refined this picture of explanation by introducing the covering law model. The model suggests that scientific explanations can be broken down into two main components: the covering laws and the initial conditions. The covering laws are principles that describe regularities in the natural world. These laws are typically expressed as universal statements and provide the basis for explaining a wide range of phenomena. Alongside the general laws, scientific explanations also involve specific initial conditions. Initial conditions are the particular set of circumstances or data that are relevant to the specific event or phenomenon being explained. When we want to explain a particular event, the covering law model suggests that we need to demonstrate how the general laws, together with the initial conditions, logically entail or "cover" the event in question. This means that the event can be deduced from the laws and initial conditions using deductive reasoning.

The covering law model is usually associated with positivism which is a philosophy that holds that the only valid knowledge is empirical and that scientific methods should be applied to social phenomena. Positivists contend that social science is inherently more intricate than natural science as its subject is none other than humanity itself—a vastly intricate system. The complexity arises from the fact that human behavior is subject not only to the forces identified by natural sciences but also to those of psychology, sociology, economics, and more. Unraveling the distinct impacts of these myriad forces on our behavior proves to be an exceedingly challenging task surpassing the complexities faced by disciplines dealing with simpler entities such as quarks, chemical bonds, and chromosomes. Natural sciences often seek to discover universal laws that apply consistently across different contexts. In contrast, the social sciences often deal with context-dependent and culturally specific phenomena, making the discovery of universal laws more challenging.

However, these explanations have failed to persuade numerous students within the social sciences. Social scientists often advocate for using everyday notions such as beliefs, desires, fears and hopes to elucidate human actions. This is because social sciences focus on providing explanations of behavior from the perspective of the agents themselves, emphasizing the subjective meaning behind actions. This contrasts with the objective, observer-focused approach often seen in Natural science.

Echoing this view, Folk Psychology and other paradigms in social science challenges the strict adherence to naturalism (the idea that everything can be explained by natural laws) and empiricism (relying solely on observable data) in the social sciences. It suggests that the pursuit of intelligibility which is the ability to make sense of human behavior and experience, should be a primary goal. In this case the idea of instrumental rationality becomes important which prescribes what an agent should do rather than predicting what they will do. Therefore, action explanation of intentional action presents the agent’s reason and these reasons make the action instrumentally rational. Explanations of intentional actions are distinct from causal explanations because a causal explanation does not presuppose that its subject is instrumentally rational. This perspective has significant implications for debates surrounding naturalism and reductionism. In the context of naturalism, the focus on agents and their actions implies that the social sciences necessitate an explanatory approach different from that employed in the natural sciences. Regarding reductionism, the emphasis on intentional action highlights the unique nature of agency. Reducing explanations solely to the causal domain of cognitive psychology or biology would alter the subject at hand.

Intentional action by its very nature acts more as a rule rather than a law. For instance, consider a situation where a student desires to earn an A in a philosophy class and recognizes that studying for the upcoming exam is the best way to achieve this goal. While going out with friends instead may be deemed irrational, individuals sometimes act against rationality. Unlike laws, rules are subject to violation; hence, one might argue that the principle of instrumental rationality functions as a norm or rule for rational action, rather than a law. The normative nature of instrumental rationality implies that labeling something as a reason indicates its appropriateness for an action. According to Peter Winch, the criteria for appropriateness are grounded in the community to which the agent belongs with normativity inherent in the subject’s activity and language. Drawing on these considerations, Winch and others concluded that explaining intentional action cannot be equated with causal explanation as Hempel had suggested.

In his essay "Actions, Reasons, and Causes" (1963), Donald Davidson presented a significant response to Winch's argument that reasons could not be causes. Davidson challenged the notion that fitting an agent's action into a pattern of community-approved actions explains it. Instead, he asserted that *the primary reason*, which he defines as the belief and attitude that actually moved the agent to action, is the cause of the action.

While acknowledging that there may be multiple reasons justifying an agent's action, Davidson emphasized that only one of these reasons constitutes the primary reason, the one that serves as the causal factor driving the action. He rejected the idea that thick description alone or fitting actions into a pattern of community-approved behaviors could sufficiently explain actions. He contended that without identifying the primary reason which is the causal link between belief, goal, and action, true understanding remains elusive. Hence, according to his views, the primary reason, being the cause of the action, must be discerned to explain an agent's behavior fully.

Contrary to Winch's position, Davidson maintained that action explanations must be causal. He argued that the principle of instrumental rationality which Winch treated as normative does not merely describe a regular association between motives and actions. Instead Davidson proposed that the principle expresses what it would be rational for the agent to do based on their beliefs and attitudes. While agreeing with Winch that action explanations reveal what the agent deems desirable or appropriate about the action, Davidson disagreed with Hempel about the status of the principle of instrumental rationality.

According to Davidson, norms, such as those expressed in the principle of instrumental rationality can be violated unlike laws. Agents may deviate from instrumentally rational behavior or fail to act for reasons recognized as appropriate in their communities. This deviation from norms implies that there cannot be a deduction as envisioned by Hempel where the agent necessarily follows a rational course of action based on their beliefs and attitudes. Davidson emphasized that while primary reasons are causes, action explanation does not adhere to the Deductive-Nomological pattern of explanation. This view therefore acknowledged the complexity of human action that goes beyond a simple deduction from laws or norms.

One might perceive Davidson's stance as paradoxical. On one hand, he asserts that reasons are causes, but on the other hand, he maintains that reasons do not neatly fit into causal laws. Despite initial appearances, these two assertions are consistent. He clarifies that not every causal relationship conforms to strict laws akin to those in the natural sciences. Using the example of hurricanes causing disasters, Davidson illustrates that we do not expect a natural law explicitly linking hurricanes to disasters. Instead, the laws in this context pertain to properties like wind velocity and sheer strength. The actual destruction results from myriad specific interactions, each of which can be explained with strict laws at the mechanical level. While hurricanes cause disasters, there are no overarching laws connecting the two. Similarly although reasons are causes no laws exist at the higher, rational level of description; these laws would presumably be expressed in neurophysiological terms.

Davidson's contributions to action theory marked a distinctive position in the ongoing debate over naturalism in the social sciences. Since explanations of intentional action revolve around reasons and rationality without invoking laws, they differ from explanations in the natural sciences. The incorporation of rational thought and action transforms social scientific theorizing into a distinct form compared to natural sciences. Although this position opposes naturalism in the epistemological sense asserting that human action is not outside the causal realm, Davidson contends that humans are integral to the natural world, and their causal powers are discoverable through the methods of natural sciences. In this sense, Davidson's position aligns with naturalism in the metaphysical sense.

Moreover, Davidson's stance rejects reductionism. While causal laws may operate at a lower level of description, he argues that the principle of instrumental rationality cannot be reduced to these causal laws. Davidson's position emerges as a nuanced form of naturalistic anti-reductionism. It acknowledges the intricacies of human behavior and the limitations of attempting to reduce intentional actions to underlying causal mechanisms, thereby reinforcing the fact that the nature of laws in social sciences will be fundamentally distinct from those in natural sciences.