

## 1 Reason and Cause

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It seems to each man that the ruling pattern of nature  
is in him; to this he refers all other forms as to a touchstone.  
The ways that do not square with his are counterfeit and  
artificial. What brutish stupidity!

– Michel de Montaigne<sup>1</sup>

Reason and cause are central to scientific inquiry and everyday life. They are also foundational to our self-esteem. From ancient Greeks to the present, the ability to reason has been considered a defining feature of humanity and something that sets us apart from other animals. Like all concepts, reason and cause have long histories and have been used in different ways for diverse ends. The close and reinforcing relationship between them has been assumed more often than it has been interrogated. In this book, I examine both concepts and their pairing. I want to understand how and why different conceptions of reason and cause and their relationship have developed and in response to what stimuli. I use my analysis to explore the relationship between social science and the social world of which it is part.

Reason and cause are concepts as problematic as they are fundamental to scientific inquiry. Philosophers have failed to come up with a definition of cause that is logically consistent and applicable to all situations that might be considered causal. This is because cause is not an attribute of the world but a human convention. For this reason, some philosophers and scientists are dubious about its utility. Bertrand Russell rejected causation as “a relic of a bygone age, surviving like the monarchy, only because it is erroneously supposed to do no harm.”<sup>2</sup> The scientific community nevertheless finds theories, propositions, or explanations more persuasive if they offer mechanisms or processes to account for the phenomena they purport to explain or predict. In sharp contrast to Russell, Albert Einstein insisted that “The scientist is possessed by the sense of universal causation.”<sup>3</sup> More than a century earlier, Immanuel Kant had proclaimed the universe as lawful universe, made comprehensible through the principle of causality, the route to scientific knowledge.<sup>4</sup>

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Social scientists frequently describe cause as the ultimate goal of inquiry. In practice, it is really only the focus of qualitative researchers who use process tracing and inter- and intra-case comparisons to construct causal narratives. Quantitative researchers hardly ever go beyond the search for regularities (i.e., correlations) that they hope to use to make predictions. Formal modelers, rational choice theorists, and students of emergence rely on “thin” understandings of cause or finesse or ignore it. Efforts to analyze the concept of cause in these diverse traditions are largely lacking.

Reason is closely connected to cause. It is a way of thinking, organizing inquiry, a vehicle for deductions and inductions, and means of defining and selecting evidence, as well as of making inferences. Max Weber observed that all attempts at explanation, and any theories on which they are based, must be rational, by which he meant logically consistent. This did not mean that people behaved rationally. He considered external rationality at best an ideal type that could be used as a template for understanding and assessing human action by determining how closely it approximated what rational people with the same goals would have done in the circumstances.<sup>5</sup> This is a reasonable approach if one can get inside the heads of the actors under study and reconstruct their goals or preferences, the kinds of trade-offs they must consider, their risk-taking propensity, and know what information was available to them.

These requirements are so difficult to meet in practice that researchers routinely substitute their logics, calculations, and information for those of actors they study. When this happens, reason loses any claim to being a neutral tool. It can also be a counterproductive one. In *Emma*, Jane Austen’s principal character Emma Woodhouse is clever but headstrong and greatly overestimates her abilities to read other people and make matches between them. Her perceptions often lead her astray and she causes problems for others and herself. Real-world examples are offered every day by political leaders who are blind to the goals or calculations of other actors because they assume they think the same way they do.<sup>6</sup> Political analysts and political scientists often do the same.

Weber suggests that reason even in the best of circumstances is never a neutral tool. We use it to assess our values and the ends we seek. Ancient Greeks considered reason a fundamental human drive that generates desires of its own. Plato believed that it had the potential to lead people to understand the nature of happiness and to constrain and educate appetite and spirit to collaborate with it toward this end.<sup>7</sup> Aristotle thought it essential for the good life and also for *homonoia*, an undivided community (*koinonia*), whose members shared a consensus about the nature of the good life and how it might be achieved.<sup>8</sup> Christianity

followed the Greeks in making reason central to personal and political order. For Augustine, the city of god is a culture in which human beings use their reason to control, even overcome, their passions, and act in accord with the deity's design.<sup>9</sup>

The Enlightenment constituted a sharp break with past thinking and practice. Its rejection of Aristotelian *telos* (the end something is intended to achieve, and how that end drives its development) helped pave the way for modernity.<sup>10</sup> Rejection of *telos* required a corresponding reconceptualization of reason. It was reduced from an end in itself to a mere instrumentality – “the slave of the passions” in the words of David Hume.<sup>11</sup> Max Weber would later coin the term “instrumental reason” to describe this transformation and explore some of its consequences. Freud incorporated it in his model of the mind; the ego embodies reason and mediates between the impulses of the Id and the external environment. Rational choice employs a similar understanding of reason; it assumes that actors rank order their preferences and engage in the kind of strategic behavior best calculated to obtain them.

The modern conceptualization of reason as instrumentality is part and parcel of the shift in focus away from the ends we should seek to the means of best satisfying our appetites. This transformation constitutes a challenge to the assumption shared by so many philosophers and social scientists that reason and cause are objective and universal concepts. Both concepts are undeniably culturally and historically specific. They are framed in ways to advance the ends we seek or are urged to seek. Karl Popper, as committed as Weber to the belief that science was distinguished by its reliance on reason, at the same time acknowledged that reason is a human invention and understandings of it are, like “all things . . . insecure and in a state of flux.”<sup>12</sup>

These framings are invariably problematic but scholars and actors alike are often motivated to downplay these difficulties. I document these claims by showing how reason and cause have been conceived by representatives of Western culture in three historical eras. I argue that these framings are responses to changing political, economic, and social conditions and the psychological challenges to which they give rise.

With respect to cause, I follow David Hume in thinking it originated with peoples' practical and psychological needs. Our ancestors struggled to understand how the physical and social worlds worked to make them better able to cope with both. They wanted to make predictions that would reduce uncertainty and the anxiety it aroused.<sup>13</sup> The origins of cause and religion are closely connected. Max Weber argued that human beings have a strong “metaphysical need” to find order in seemingly random events to give life meaning but also to tame the world.<sup>14</sup> People

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invented deities to explain otherwise incomprehensible phenomena like storms, illnesses, and droughts. If they were the work of unseen gods who might be placated through prayers or offerings, people could assert a degree of control over threatening events.<sup>15</sup> All humans share this need; we still worry about natural disasters but also about recessions, wars, and climate change. To reduce anxiety, we can deny the threat or convince ourselves that we can understand how these catastrophes happen and do something to reduce their likelihood.

Elsewhere I argue that the belief in nuclear deterrence during the Cold War served this function by holding the bogey of nuclear war at bay. The national security community and many academics were accordingly unwilling to consider evidence that deterrence was more likely to provoke conflict than to prevent it.<sup>16</sup> In defiance of considerable evidence, economists convince themselves – and many others – that they can predict rises and falls in interest rates and other key economic trends. They succeed, I believe, not because of any demonstrable success in this regard but rather because the modern economy could not function in the absence of some degree of certainty about the future, even if it is illusory.

We cannot study the origin of causal inference because the practice emerged in human cultures long before the invention of writing and before the concepts of cause or reason were invented and named. David Hume is probably right in believing that our minds are constructed – hardwired, in today’s lingo – to look for conjunctions between events and to infer causal connections on this basis. Karl Popper made a similar claim: “Biologically, we are told: you want to know – search for laws.”<sup>17</sup> This kind of thinking may have conferred a significant survival advantage. The experimental evidence is tantalizing. Cognitive psychologists have studied the reasoning among children and there is no consensus among them about whether causal inference is innate or learned.<sup>18</sup>

Then next best thing we can do is to go back to the earliest texts we have that utilize, explore, or problematize cause. Origin narratives have been largely debunked as just-so stories but there is nevertheless some utility in reading the earliest sources we have that address reason and cause. My intention here is not to discover any pristine version or deep historical truth but rather to examine how reason and cause are presented and used and how central they are to these narratives. My analysis is a starting point for historical comparisons across several thousand years of what might be described as Western culture.

I begin with Homer – or the bards collectively referred to as Homer – who wrote about what call late Bronze Age Greece. Homer is foundational to Greek civilization and to Western understandings of cause and reason but also of agency, emotion, fate, and war. Homer’s *Iliad* is a causal narrative

that offers reasons for why people and gods behave as they do. It shows how the gods influence the actions of people, the outcomes of their actions, and how people try to influence these outcomes through appeals to gods. Those who listened to bards recite the *Iliad* and *Odyssey* in preclassical Greece were encouraged to think about how their world worked, the nature and extent of their agency, and how it was best exercised. These epics, I suggest, offer a thoughtful and problematic account of reason, cause, fate, and agency, and one, moreover, appropriate to the emergence of the polis. Homer is also of interest because he was so central to later formulations of reason and cause by fifth-century tragedians and Thucydides. The *Tanakh* or Hebrew Bible would have been another starting point, and I hope at some point to address it. Equally interesting, of course, are foundational texts of other cultures.

Tragedy is one of the most notable gifts of Greek culture. Aeschylus, Sophocles, and Euripides wrote plays that were as foundational to Western thought and literature as the epics of Homer. Space restrictions preclude treating all three playwrights so I limit myself to Sophocles. His Theban tragedies are most relevant to my exploration of reason and cause. *Oedipus Rex* (in Greek, *Oedipus Turannus*) is about fate and the effort of an intelligent and powerful actor to escape it. It encouraged fifth-century Greeks – and modern audiences and readers – to reflect on the meaning of agency, the unpredictable consequences of reason-based behavior, and, above all, the search for causes.

Sophocles offers a dual take on cause. His characters tell us what they think about it and we see how they use causal inference to make sense of the world and formulate responses to the problems and challenges. Their engagement with reason and cause generates tensions, even contradictions. It suggests that people understand reason and infer cause in self-serving and often counterproductive ways. For Sophocles and Aristotle – and for Thucydides too – tragedy is a vehicle to teach people how to live in a world in which cause is difficult to understand and the social environment unpredictable and more difficult still to control.

The shift from *oikos* to polis is mirrored much more in Sophocles and Thucydides than in Homer. It was a momentous transformation. In the *oikos*, gods and human practices were taken at face value and authority was concentrated in the hands of the king or local landowner. People's responses to others were largely predictable since they were dictated by *nomos*. The polis had many more people and a greater variety of statuses. Power gradually shifted from kingship to oligarchy and, in some cities like Athens, to the demos. Authority and office were based less on inheritance and physical prowess and more on rhetoric, guile, and other political and social skills.

The polis was a world of precipitous change and one in which causal inference became even more important for survival and advancement. It nevertheless became more difficult for reasons I enumerate in Chapters 2 and 3. Sophocles' Theban plays are set in a mythical past but use it to foreground and probe fifth-century preoccupations and understandings of the world. In these tragedies, events have human not divine origins, multiple rather than singular causes, and causes that are often at some remove from their effects. Causes may be hidden, and, even when discovered, generally lend themselves to different explanations. More disconcertingly, some things just happen. The search for cause, Sophocles appears to suggest, can lead us in circles and undermine rather than enhance our understanding of the world.

People could not help but search for causes in the world of the polis, an imperative that Sophocles and Thucydides recognized. Social, economic, and political life were more in flux and presented the kind of challenges that are no longer effectively addressed through either physical prowess or unyielding commitment to traditional *nomos*. Fifth-century Greeks, especially those in large bustling cities like Athens, were compelled to fathom causes to negotiate their lifeworlds. As noted, the tracing of cause and effect became increasingly difficult. Sophocles and Thucydides explore this dilemma.

In the writings of Sophocles and Thucydides, we encounter an early version of what Thomas Haskell calls "the recession of cause."<sup>19</sup> In the late nineteenth century, he argues, increasing social and economic interdependence in the United States, coupled with easier communication of goods, people, and ideas, meant that many important events could no longer be explained with reference to local causes. They had to be understood with reference to a broader, unseen set of forces and conditions. This characteristically modern concern with deep structures was anticipated in ancient Greece. Sophocles and Thucydides recognized that their world had become more complex because, among other things, high-status actors had more autonomy. They had more freedom of choice about roles and their enactment. People had to make inferences about how others would behave and used the concept of cause toward this end. They also used causal arguments to persuade others to act in ways they thought advantageous to their own interests. Thucydides explores the consequences of both kinds of behavior.

Sophocles and Thucydides had to fashion their understandings with the tools available to them. Tragedy, comedy, and history were the dominant discourses. Sophocles wrote both genres and we possess only seven of his 120 known plays. Thucydides wrote what we call history but structured it as tragedy. With the rare exception, tragedy was set in the

distant past and featured mythological heroes, many of them figures out of the *Iliad* and *Odyssey*. Turning to characters from a distant past offered several advantages. They inhabited a simpler world and were motivated by heroic values. As they were mythical figures – although perhaps not to many Greeks – playwrights could take all kinds of liberties with them. Audiences familiar with Homer would pick up on these different portrayals and story lines and ponder their implications.

Philosophical discourses emerged in the late sixth century and gained prominence in the early fourth century with the writings of Plato and Aristotle. By the time of the Enlightenment, they had been an established medium for more than two millennia. They became a principal vehicle for exploring the concepts of reason and cause. Interest in these concepts intensified in the late eighteenth century and David Hume was central to this effort, although he refused to self-identify as a philosopher. Writers of fiction also interrogated reason and cause, so I follow my analysis of Hume with that of three Victorian writers: Charles Dickens, Anthony Trollope, and Wilkie Collins. There is no evidence that any of them read Hume but their understandings of reason and cause are in many ways similar.

Hume is rightly famous for his analysis of cause and concepts of “constant conjunction” and “invariant succession.” He is arguably the most radical of Enlightenment philosophers. His writings were misunderstood at the time and still are today. His approach to cause is more psychological than philosophical; he is interested in how people turn to cause to help cope with the world, not in its elaboration as a concept foundational to scientific inquiry. In contrast to contemporaries who vaunt the power of reason, Hume argues for the power of imagination and emotion in forming judgments and assigning causes.

Hume urges us to give up the failed project of deductive reasoning. He excoriates philosophy for building systems on moral and logical assumptions rather than from observation of human life. He is struck by the irony that some philosophical systems claim to be descriptive and prescriptive. They insist their foundation is god-given, or at least rooted in the so-called natural dispositions of human beings, but then plead with people to act more in accord with their nature. Philosophy, Hume insists, cannot change human nature; attempts to do so are an arid exercise and waste of time. Rather, we should learn about people from experience and observation. His epistemological claim has radical normative implications, some of which he draws out. Philosophers should no longer ask what people should believe and how they should behave – for millennia the core questions of their enterprise – but investigate why they believe and act as they do. Hume insists on an equally radical methodological shift from abstract reasoning to

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experimentation. He wants to transform philosophy into something akin to modern cognitive and social psychology.

Jane Austen is the first English novelist to stress the dominant power of the imagination in shaping judgments. There are strong parallels in her thinking and Hume's, as there are between Hume and Dickens, Trollope, and Collins. These similarities may be independent responses to the growing importance yet enigmatic nature of civil society. In the late eighteenth century, society in Britain and the United States came to be understood as something independent of the people who composed it, even if changes in manners and customs were ultimately attributable to the behavior of individuals. For Victorians, society seemed to be governed by its own rules but was sufficiently large and diverse to work in opaque and unforeseeable ways. Society was independent of church and state, influenced by people, but not in any visible way controlled by them. This puzzle and the related unease to which it gave rise would lead social scientists later in the century to develop deep, structural explanations for the links between society and individuals, giving rise to the discipline of sociology. Their project endures despite efforts by postmodernists to discredit grand theory.<sup>20</sup>

Troubling too was the reversal in freedom society brought about between the upper and lower classes. Those at the top of the social hierarchy had more resources and education and should have had more freedom. In practice, they were more restricted by social rules and more ostracized when they violated them. Economic pressures on the lower orders and social pressures on the higher ones encouraged deviance at both ends of the socioeconomic spectrum. Dickens explores the underworld and those who constitute it. Trollope and Collins write about members of the elite who violate social norms or the law, how they are exposed, and how people judge them. Victorian literature diverged increasingly from contemporary social and political theories, most notably those of Bentham and Mill.

With Dickens, I focus largely, although not exclusively, on *Bleak House*. I do so as it is the most revealing text with respect to his treatment of reason and cause. Like Hume, I suggest, Dickens has little faith in the power of reason. At every level of society his characters are moved more by their emotions and also influenced by custom. They often act in irrational ways when constrained by custom or in thrall to their emotions. However, they are just as irrational – arguably more so – when liberated from custom and emotions and reliant on instrumental reason. These social truths are most dramatically illustrated by Dickens' criminals.

Trollope shares Hume's understanding of human beliefs and attributions. In *Phineas Redux* especially he offers parallel accounts of how



judgments are made by society and the law courts. He challenges the conventional wisdom by showing that decisions and judgments in both domains are reached in ways that have little to do with reason and sharply at odds with the expectations of reformers and philosophers. Hume, Dickens, and Trollope developed an understanding of reason and cause based on careful observation of people that was largely stillborn. It made little headway against regularity theories, based on the belief in recurring patterns in social life. Regularity theories claim Hume as their progenitor but this involves a serious distortion of his writings. Regularity theories were given a major boost by John Stuart Mill and adopted by economics, from which it spread to the other social sciences. Their success, I argue, was in large part attributable to the Victorian quest for order and liberal belief in the power of reason. They triumphed more for psychological than intellectual reasons.

Many of the characters of Dickens, Trollope, and Collins follow Jane Austen's Emma in their inability to comprehend their own motives and appear driven more by emotion than by reason. These authors often give emotions a positive valence as they guide characters to truths they would never discover through reason alone. Collins comes across as very Humean. He wants us to recognize that so-called facts can reveal the truth or stand in the way of its discovery. They only take on meaning in context, and these contexts are by no means self-evident. Lawyers and courts, he suggests, rarely go beyond Humean-style inference. They focus on resemblance and contiguity and routinely make unwarranted inferences on the basis of them. This process leads to the simplest explanations of events and responsibility. They are the ones most likely to be believed by ordinary people, who think the same way. Lawyers and juries act alike.

Dickens, Trollope, and Collins question the rationality of people and the utility of using reason to study cause. As often as not, their characters do not seek rational ends, do not behave rationally in pursuit of their goals, do not interrogate their motives, and have only imperfect knowledge of them. All three authors suggest that rational strategies are not necessarily the most effective way of achieving desired ends. In part, this is because other people regard people who do as calculating and do not trust them. It is also attributable to the aggregation problem. People rarely act alone but do so in conjunction with others. Their interactions, as in the Jarndyce and Jarndyce lawsuit, can produce outcomes that none have anticipated or desired. Efforts to game them by instrumentally rational actors are bound to fail.

My third historical epoch is fin-de-siècle Europe. It witnessed equally radical changes in thinking about reason and cause. I pair German sociologist Max Weber with German author Thomas Mann and Austrian-Czech

writer Franz Kafka. Weber was born in 1864, Mann in 1875, and Kafka in 1883. All three grew up in an era generally recognized as a high point of European culture and global influence but also of industrialization, state development, and mass politics. They experienced World War I but Weber and Kafka died not long afterwards. Mann lived until 1955 and revised his *The Magic Mountain*, set on the eve of that war, in its aftermath.

Weber was among the first to probe the cultural consequences of science and scientific thinking. The demystification of the world and the rising importance of scientific understandings of it brought about an increased emphasis on causal inference. It encouraged the belief that the physical and social worlds were organized causally and that all things could be mastered by calculation (*durch Berechnen beherrschen*).<sup>21</sup> This imparted a rational flavor to the everyday experience of even ordinary, uneducated people. Intellectualization encouraged people to act less on the basis of habit and more in response to conscious reflection and calculation and to calculate and assess the likely consequences of their behavior for the goals they sought. Weber calls this *Zweckrationalität* (means-ends reasoning or instrumental rationality).<sup>22</sup> Its effect was to heighten the tension, even the contradiction, between belief in how the world was structured and the ability to grasp and manipulate this structure. The world might have meaning but its causal structure – if there was one – was ever more elusive.<sup>23</sup>

The paradox that cause is increasingly essential to negotiate modern life but more difficult to establish encourages diametrically opposed responses. People can devise more sophisticated means to probe causes at deeper levels of analysis. Max Weber pioneered the approach. He made important contributions to the study of cause, which explains his continuing relevance, if not centrality, to the interpretivist tradition in social science. Alternatively, people can also try to dispense with cause and find other means of coping with the complexities of modern life. The difficulty of making causal attributions, I contend, is a principal reason why regularity theories gained such prominence in the twentieth century.

Weber developed his approach to knowledge in the context of controversies between historicists and positivists and historicists and neo-Kantians. He built on these traditions while attempting to finesse what he saw as their limitations. The result was a definition of knowledge as causal inference about singular events that uses the individual as its unit of analysis, relies on ideal types, and employs counterfactual thought experiments to probe putative causes. For many reasons, his approach is no silver bullet but represents an imaginative and fruitful attempt to chart a more rewarding path toward knowledge in what Weber, following Wilhelm Dilthey, called the “cultural sciences.”