

Epistemology: Logic, Causality, and Explanation

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Why do we have to study this epistemology bullshit anyway? —unnamed member of the author's graduate cohort, uttered while studying for comprehensive exams.

Introduction: Why do we talk about epistemology?

Social scientists usually encounter epistemology in two kinds of conversations. The first is discussion of the difference between ‘subjective opinion’ and ‘objective fact’, with the latter often being the goal of good scientific theory, and the former being what the outcome of when we allow our ideological or cultural biases to cloud our judgement. The second is a discussion of the status of social science concepts: do terms like ‘identities’, ‘countries’, ‘markets’, and ‘institutions’ refer to ‘things in the world’, in the same way that ‘tables’ and ‘bacteria’ seemingly refer, or are these words something else—perhaps expressions of emotion or intellectual ‘tools’ for arranging experiences?

It is no coincidence that these discussions often arise in arguments about whether to grant or deny social science the same authority as natural or physical science, or perhaps to deny the authority of all science, as a way of developing knowledge about the world. Prominent figures in the natural sciences have suggested that “social science is an example of a science which is not a science” (Feynman in Patomäki 2019, 189), conservative commentators have claimed that the social sciences are merely vehicles for left-wing agendas,¹ and critics drawing

¹ See Michael Shermer, ‘Is Social Science Politically Biased?’, *Scientific American*, 1 March 2016. Available online at <<https://www.scientificamerican.com/article/is-social-science-politically-biased/>>. Accessed 9 September 2020.

on traditions in the humanities have claimed that the social sciences are often, or even primarily, expressions of racism and imperialism (Ake 1982; Elias and Feagin 2016). These critical claims may sometimes be frustrating, but they cannot merely be dismissed without deeper reflection. Some of them may be more reasonable than others; all require explicit consideration of the assumptions and implications of science, social or otherwise, as an approach to learning about the world.

‘Epistemology’, as a domain of philosophical reflection, considers the positions we all take on the nature of truth, knowledge, facts, and the relationship between these things and ideologies, structures of power, values, perspectives, and experiences. Epistemological commitments underpin any attempt to specify a causal relation, interpret a statement, or even simply construct a dataset. However, as the epigraph to this chapter suggests, epistemology also can appear frustratingly obtuse, and discussions about it can seem abstract and distant from the meaningful choices scholars routinely make about research design and the analysis of findings.

This chapter offers an introduction to the dominant perspectives on epistemology that underpin, explicitly or implicitly, major programmes of research on international politics. More broadly, these perspectives also reflect the epistemological divides characteristic of almost all social science, and primarily I will draw on sources from the philosophy of science rather than from the discipline of International Relations (IR). First, I briefly summarise, before even going into detail about philosophical content, how scholars of international politics have turned epistemological debates into significant disciplinary divides. Put differently, I will explain how ‘epistemology-talk’ matters for understanding the trajectory of the field over the past several decades, in ways that are clear even without knowing what that talk is actually about. On the hope that this is enough to grab even reluctant readers’ attention, I will then define the four major ‘philosophies of science’ that debates in epistemology have underwritten: positivism, realism, relativism, and pragmatism. I will focus, in particular, on different views of language and the meaning of concepts, which I think offers the best analytical basis to differentiate these four schools of thought. Finally, I will discuss some of the disciplinary and practical implications of one’s perspective.

A brief history of IR scholars wielding ‘epistemology’ as a disciplinary cudgel

Standard definitions of epistemology do not offer an obvious explanation of why scholars in the field of international relations (IR) seem to care so much about it, talk so much about it, or align disciplinary divides along differing opinions about it. What does it even mean, for example, that ‘feminism’ and ‘rationalism’ have opposing views about the nature of knowledge? What is the relevance to the actual conduct of enquiry of a debate about how it is possible

to know something? Bluntly: why on earth is this chapter at the start of a handbook for IR scholars, and why should anyone bother to read it?

One reason to care is simply that the history of our discipline obliges it. The so-called ‘paradigm wars’ of the late 1980s to the early 2000s (and beyond, for the stubborn holdouts) often featured various factions accusing others of some sort of fatal epistemological failing. Talk of ‘epistemology’ rose in prominence because it had become a battleground—or weapon—of intradisciplinary conflict. During these infelicitous years of strife, an insurgent group of ‘constructivists’ challenged the dominance of rationalist ‘neorealist’ and ‘neo-liberal’ debates with a new set of concepts, social dynamics, and ways of theory-building (Kratochwil 1989; Onuf 1989). These challenges drove a branching of IR into a number of distinct directions, with a ‘conventional’ constructivism emerging as a compromise position between ‘critical’ constructivists and an allegedly positivist mainstream, crystallising around research into identities and norms as variables of underappreciated importance (Jackson 2012). A smaller community of ‘critical constructivists’ argued that there was something fundamentally limited or even illegitimate about the ‘positivism’ of the disciplinary mainstream, while rationalists continued unperturbed, and, depending on who you ask, many research programmes lapsed into ‘vacuous hypothesis-testing’ free (or unburdened?) of links to any ‘grand theory’ (Mearsheimer and Walt 2013). The frequent invocation of epistemological differences, problems, or stakes during this period does not much clarify why epistemology matters, but it does show that talking about it ended up part of internal power struggles that shaped not just the standards for what research should be published, but also the trajectory of careers, scholarly communities, and entire institutions.

Epistemology-talk did not stop with the end of this period of upheaval and the theoretical/methodological openings it produced. It continues to be a part of novel challenges and critiques, including those of the ‘new’ constructivism of practice theory and of relationalism (McCourt 2016). It is significant to growing calls to attend to non-European experiences, practices of learning, and perhaps even ways of knowing, by scholars critical of the Eurocentricity of IR, and its dependence upon a European canon of philosophers, historians, and sociologists (see, for example, Sabaratnam 2013; Hobson 2012). It is a part of attempts to end disciplinary debates over the legitimacy of this or that big perspective, by calling for everyone to just get down to business and do their thing (Sil and Katzenstein 2010). Ironically, then, even those who wish we would all stop talking about epistemology must not only talk about epistemology to make their argument, but must do so compellingly well.

In other words, you do not need to even know what epistemology is to know that it matters in IR. It matters to the history of the discipline. It matters to our ongoing struggles to grant greater attention to marginalised communities,

scholars, and perspectives. It matters to book publishers and series editors—and we all want to publish more books!

In the next section, comprising most of the chapter, I will try to go over some of the most significant problems and debates of epistemology as they normally matter to the field of IR. These relate to two themes. First, I discuss the different ways one can define truth and how these definitions have practical implications for scientific research. Second, I discuss causality. While this is usually considered a matter of ontology or metaphysics, it is also a matter of epistemology for the simple reason that most IR scholars would like to say something about causes and effects.

Truth, language, and the logic of enquiry

Most people, if you asked them when a statement is ‘true’, will likely answer something along the lines of ‘when it accurately describes the world’. In a simple, non-pejorative sense, this is a kind of ‘naive realism’, according to which there is a reality ‘out there’, with features independent of our opinions or feelings about it, and it is possible to offer descriptions that in some way, to some extent, correspond to it. Epistemologists have called this the correspondence theory of truth.

And yet, there is a non-obvious dimension to assessing the truth of seemingly straightforward factual statements. It has major implications for what theories about the world mean, what we can ‘use them’ for, what kind of authority they should carry, and how we can criticise them. There is a hidden assumption at play in this theory of knowledge: the assumption that language can ‘refer’ to something outside of language. Extensive epistemological writing covers such important issues as when we should believe a claim, what constitutes a ‘reason’, or what happens when someone asserts a true conclusion but does so on the basis of faulty logic. Underneath this writing, though, is the idea that by remarking *on* the world we are in some sense representing, simulating, or mirroring it in our descriptions. Our words denote objects, and our sentences, when true, correspond to the arrangements of objects that are actually ‘out there’.

There are multiple ways to access or navigate the literature on epistemology, but in my view, among the most useful is to focus on different views about language and reference. Theories are built and expressed in words, and words are what link researchers together as communities of enquiry, in the basic (but not trivial) sense that procedures and results must be communicated, and the accumulation of new findings or contesting of old ones is necessarily discursive. Differences in perspective on what language is *about*—what words denote and their relationships of extension and intension (to use technical

terms)—track and explain the four major epistemological traditions into which the social sciences divide: positivism, realism, relativism, and pragmatism.²

Positivism

There are two influential schools of thought amongst those who think language can refer to something other than just language. The first is positivism. The word is likely familiar to most social scientists, but as a philosophy of (social) science, it has a more specific meaning than is perhaps normally understood by those in our field. Auguste Comte, one of the progenitors of social science as we know it, coined ‘positivism’ to refer to the search for, and discovery of, the laws that govern society, similar to how natural scientists engaged in the Baconian investigation of the laws of nature. While there is a sense in which present-day positivists are searching for the same, the epistemological meaning of the term—the positions it entails about truth, metaphysics, and reference—owe more to a group of philosophers during the early- to mid-twentieth century who called their approach ‘logical positivism’. They developed certain views about the meaning of theories and the nature of causal analysis that have been more or less completely repudiated by philosophers, never were popular amongst natural scientists, and still enjoy widespread currency in the fields of political science, economics, sociology, and psychology, where many scholars treat them as definitive of what it means to engage in the practice of science.

The logical positivists advanced two key points of view. The first was that (semantically) meaningful language referred to nothing more, and nothing less, than discrete sensory experiences, or *phenomena*. ‘Sense data’, as they were called, are all positivists think we can discuss, because these are the only knowable outcomes of how reality imposes itself on the human body and mind (Huemer 2019). Such things as ‘cats’ and ‘mats’, to name two popular examples, may be related to ‘real’ things out there, but our definitions of them ultimately reduce to our observations (sights, smells, touches, etc) and the ways we systematically and consistently categorise them. Moreover, with the right, unbiased descriptive language, it is possible for us to describe ‘sense data’ in ways that mean roughly the same thing for everyone, so that subjective differences in interpretation or perspective can be minimised or eliminated in the way researchers talk about the world. The second key principle of positivist is that a theory is, at its core, an hypothesised law-like regularity, either confirmed or undermined by empirical data, representing some consistency in the workings of the world. Through a method called ‘hypothetico-deduction’, scientists work by proposing an hypothesis, deductively inferring its empirical implications, then observing to see whether those implications obtain. In the case of historical or

²These four categories bear some similarity to those Jackson (2010) proposes, but without the ideal-typical reconstruction and arrangement of their metaphysical commitments. I draw them from the first book I ever read in the philosophy of science, by the meta-methodologist Larry Laudan (1990).

social explanation, these hypotheses can perhaps be probabilistic (Hempel 1942), but they still indicate a persistent tendency for one event, however small or large in duration and complexity, to follow another. Together, these permit the accumulation of a body of objective facts, denoting relationships that exist for all human beings.

The origins of this view of causality lie with Scottish Enlightenment philosopher David Hume. Hume advanced two key arguments that together form the core epistemological and ontological basis for positivism. One is that the only access we have to reality is through our sensory organs, and hence, as noted, when we talk about world or develop knowledge of it, we are only, in the end, dealing with the sensations it produces in us. This does not mean an ‘objective reality’ does not exist. Imagine running your fingertip along the trunk of a tree; the texture of the bark may be something you feel by way of touch, but it should feel similar to anyone with similar fingertips, and is produced by something stable and ‘real’. Or, to draw another analogy, the sight of a tree is produced by the reflection of a thing—by light bouncing off surfaces and reaching our eyes, then rendered into an image by our brain—but those surfaces exist in some independent sense, were there before we saw them, and will continue to exist after we cease to see them.

Second, Hume argued, since all we can know of reality is our experience of it, which is felt in terms of sensory ‘episodes’, then a causal relationship is nothing more (and nothing less) than a consistent conjunction, or ‘correlation’, of those experiential events. A cause-and-effect relationship is when the occurrence of given phenomenon occurs is reliably followed by another. For example, to say that drinking coffee causes one to become energetic is simply to say that the experience of drinking coffee is almost always followed by the experience of increased vigour. To say that agitating the molecules of liquid water causes it to form a gas is simply to say that the observations indicative of water heating up are reliably followed by the observations indicative of water becoming steam. While researchers often say that ‘correlation does not imply causation’, on the Humean view, all causation nevertheless implies a correlation, and only a correlation.³

For social scientists, these views have several major implications for research and analysis. The first is the need to minimise observer bias. When constructing datasets or indexing observations, it is very important to find ways of talking about the world that are insensitive to cultural differences or individual variation in sensory organ function. Part of the early positivist project involved coming up with a special way of describing experience, called a ‘protocol statement’ or ‘protocol sentence’, designed to generalise across all human observers. It is also why positivists look for ways of collecting and coding information that detect and eliminate the cognitive and cultural prejudices that

³ For a thorough overview of Hume’s thought, see Morris and Brown 2020.

alter perceptions away from a supposedly neutral sensory baseline. The use of mathematical formalisation, very common in positivist social science research, may be seen not just as a computational tool necessary for the analysis of large amounts of data, but also another manifestation of the desire to describe data in standardised ways. Data must be coded so that they are interpreted the same regardless of who looks at them.

The second is the instrumental nature of theoretical categories. Instrumentalism is a position in the philosophy of science, and proposes that scientific theories are tools designed to solve problems rather than attempts to accurately depict the world. For positivists, meaningful words are analytical categories: creations of language designed to usefully summarise and communicate experiences; they are linguistic paints with which to draw pictures of the world, and they communicate by causing those who read or hear them to consistently imagine or recall the experiences they represent. There is some variation within positivism on how instrumentalist to actually be, and only a minority think that theories can be as ‘unrealistic’ as necessary so long as they reliably predict what will happen in the future (Friedman 1953). But all positivists are not talking about ‘things’, if they are remaining true to the philosophical foundations of their epistemological commitments, but rather about events, understood to be bundles of experiences or sensations, which ‘vary’ along certain sensory dimensions. These can be colour, velocity, or even in a broad sense presence and absence, and thus can be described as ‘variables’. ‘Bullets’, ‘capitalism’, ‘pain’, ‘history’, ‘Canadians’, ‘gender’, and ‘puddles’ are all, in the end, just ways of packaging and communicating those sensations, and if other ways of packaging them become more reliable or convenient, then they should be preferred.

The third implication is that prediction is the methodological goal of theory. Prediction does not necessarily mean forecasting the future, although in principle the implication of knowing a causal relationship, in a positivist sense, is to know that one event will follow another. But it does mean that there is a ‘logic of regression’ at the heart of causal claims—that if y causes x then for some value of y , we can expect a corresponding value of x . For positivists, causal mechanisms are simply finer-grained or more detailed sets of intervening correlations linking two variables. It should be easy to see how this view can underpin research conducted in the sterilised environment of the laboratory, where ‘external’ influences are kept to a minimum and standardised—or ‘controlled’—and special scenarios set up to make it easier to observe and ‘test’ the influence of one specific variable upon another. It should also be apparent that when social scientists use complex regression analyses on large sets of observations, they are seeking to approximate, or simulate, this sort of laboratory setting to make as clear as possible how two variables co-vary, because, again, this is definitive of a causal relationship.

One criticism scholars might make of positivism is that it implies a view of the world that is divorced from how most human beings actually seem to think and talk about it. It is also probably not how most self-professed positivists outside of academic philosophy departments (where they are few in number) understand positivism. Positivists in the social sciences often refer to natural and social structures, and there is no reason to suspect that these are all intended to just be metaphors or convenient shorthand for clusters of sensation. Nor do I suspect they would endorse the notion that causal relationships have no real mechanistic character, and are merely events in succession. If not, then social science positivists ‘perform’ positivism as a sort of methodological theatre but do not actually believe the premises that underpin it as a coherent philosophy of science. This raises a fairly urgent question of why the ‘mainstream’ of several social science fields elevate hypothetico-deduction, variable-based descriptions of the world, and correlational views of causal relationships, since the epistemic value of these things rests on premises that few actually accept or endorse.

Moreover, and central to the demise (amongst philosophers) of positivism as a credible school of thought, are problems with its views on language and reference. Most famously associated with Quine’s essay *Two Dogmas of Empiricism* (1951), but not exclusive to it, is the criticism that it is not possible to describe ‘sense data’ in a language free of assumptions—in other words, that observations are ‘theory laden’—and it is also not possible to analyse data without bringing in other, unanalysed empirical content. Entire systems of assumptions and experiences are ‘tested’ in the course of enquiry, but not individual hypotheses, and not against a body of data sanitised of biases. Even if later attempts to rescue positivist notions of scientific progress (Lakatos 1978) from ‘confirmational holism’ are presumed successful, this more or less breaks its epistemological apparatus, at least as an account of what it means to know something and how we can go about gaining that knowledge.

Why, then, does positivism continue to be popular amongst social scientists? Before assuming philosophical incoherence, it may be worth considering another possibility: that, perhaps unintentionally, an epistemological shift has taken place in their fields towards ‘realism’, even if the methods or vocabulary of positivism continues to define the practice of research for many scholars.

Realism

Realism is the second major school of thought amongst those who think that scientific theories ‘refer’ to something outside language. Realism has long supplanted positivism as the dominant position of philosophers of science, and arguably is the intuitive position of many or most social scientists (Healy 2013), regardless of whether they are *methodologically* committed to the hunt for correlations. Even those researchers who look at the probabilistic relationships between two variables may imagine themselves, fundamentally, to still be talking

about actual things, rather than convenient groupings of sensory events. Put simply, even enthusiastic self-identifying positivists in the social sciences are unlikely to deny that the word ‘tank’ refers to something material, stable, and denotable regardless of whether anybody is there to denote it. For realists, when a tree falls in the forest, it always makes a sound. While less cohesive and focused as a school of epistemology, by comparison to the more unified body of thought characteristic of positivism, realism underpins some of the most influential bodies of social science theory, both historically and currently.

Realism is the view that the objects of theories—meaning the things that theories talk about, like atoms, nation-states, wars, or turnips—map on to the contents of a reality independent of experience, and that a true theory is one that accurately or successfully describes it. In other words, there are things that produce our experiences when we come into contact with them, and they are knowable. This is the ‘naive’ view I described earlier, as the ‘correspondence’ theory of truth. But realism also implies some more specific positions, and realist epistemology offers a defence of the possibility of referring to something beyond experience (ie sensation).

Central to realism as a philosophy of science is what has sometimes been called the ‘no miracles’ argument: that realism is the only non-miraculous account of the success of science (Putnam 1975). This thesis can also be called optimistic meta-induction on the progress of science, which sounds complex but has a simple meaning: that realism is the most probable explanation for how scientific theories, most notably in physics, chemistry, and biology, have allowed us to reliably manipulate world in incredibly precise ways. While the details of atomic theory might slowly change, the argument goes, the fact that we have been able to use atomic theory to achieve nuclear fission, complex chemistry, and all sorts of other feats of engineering strongly suggests that something like ‘atoms’ exist. It would be spectacularly improbable for atomic theory (or, say, caloric chemistry) to be completely inaccurate in representing reality given these accomplishments. In somewhat technical terms, this is an argument for realism as a ‘condition of possibility’ for scientific progress, meaning that it must be true if scientific progress is true—and scientific progress, according to optimistic meta-induction, is manifestly true.

Yet optimistic meta-induction does not work so well for the social sciences, for the simple reason that the social sciences have never granted any capacity for precision manipulation of the world. If, say, nuclear fusion represents the apotheosis of applied physics, then no accomplishment of scientifically-informed public policy comes even close. As a result, realists in the social sciences must rely on other bases to claim that their theories ‘refer’. The most popular among them is still a ‘condition of possibility’ argument, but one that more closely tracks with the propositions and empirical content of specific theories.

Rather than rely on demonstrated instrumentality, realist philosophers of social science typically argue that agents, social structures, relations, processes, and causal mechanisms are real because their existence is the only way to make sense of the observed outcomes of history and the self-evident agency of human beings. While the most influential epistemological writing on this comes from a school of thought known as ‘Critical Realism’ (Bhaskar 1998), it is also the foundation for Marx(ism) and for an assortment of less popular but still influential perspectives (Little 2010).⁴ For realists, society is constituted by interrelated and changing arrangements of human actions, and the ways in which action causes those changes is through some kind of patterned interaction of social ‘parts’, which grant social arrangements distinct causal propensities or ‘powers’ (Elder-Vass 2010). Because of this, realists not only devote attention to discussing what it means for social structures to be ‘real’, but also considerable effort to parsing what a causal mechanism means in the social world (Hedström and Ylikoski 2010), since we arguably cannot observe or describe cause-effect relationships amongst people with the same precision or clarity as we would the operations of a microorganism or a chemical reaction.

Realist social science often is qualitative, historical, and focused on single cases, because multi-case comparison or large-samples are no longer necessary to ‘prove’ causality. By relying on condition-of-possibility arguments, it is possible to argue that an episode or process could only have happened as it did if certain underlying structures/mechanisms/relations existed—what philosophers call a transcendental inference. For example, a realist could argue that the only way the outcomes of the Cold War could be possible is if ‘American capitalism’ were a ‘real structure’ that affects the world in consistent ways regardless of whether individual people are conscious of it. But realists can also make similar arguments about observed, robust correlations—that the only explanation for them is the existence of something underlying and ‘real’. This is, I suspect, the ‘naive realist’ intuition underlying much quantitative research in IR, even if it is relatively rare to see self-identified realists employ statistical techniques. Because of this, it appears to offer a more satisfying ecumenicalism on questions of method in comparison to positivism, which epistemologically privileges quantitative research for the simple fact that if causal claims depend on consistent correlations, then the reliability of a causal argument can only be enhanced by further demonstration of correlations (King et al 1994).

Realism, especially in the social sciences, rests on sophisticated and thoughtful epistemological bases, but it is especially vulnerable to two avenues of criticism. One is simply that it presumes too much restriction in the possibility of theories to account for, or describe, what seems to be happening. Historians of the natural sciences have observed that completely ‘debunked’ theories with

⁴ While the influential historical sociologist Charles Tilly described his approach as ‘relational realism’ (2002, 72), he may mean this more as an ontological claim than an epistemological one, and appears to advance a view of theory more consistent with pragmatism (Gross 2010).

completely different central terms, such as phlogiston chemistry, nevertheless offered a high degree of predictive success (Laudan 1978). Similarly, it may seem pessimistic and perhaps even arrogant to propose that only, for example, the productive power of economic class-relations could possibly offer a satisfying explanation for observed inequality in means and wealth.

While I will discuss these criticisms in greater detail later, with respect to pragmatism, they are secondary to a more significantly one: that language can only refer to itself, and never ‘extend’ to the objects of an extra-linguistic reality.

Relativism

Relativism is a contentious term, because almost nobody claims to actually be a relativist. ‘Moral relativist’ is a slur, and epistemological relativism seems to many to imply that science is presumably no more valid an approach to generating knowledge than witchcraft or divine revelation. Relativism also appears manifestly false, since at the very least, almost nobody really thinks that witchcraft and science are equally reliable sources of medical knowledge. I should be clear that I mean something very specific by the term: the view that the truth of a statement depends upon the basic assumptions and discourses from which its justifications are drawn, and that these discourses are, at least linguistically, self-contained—that is, they are packages that are taken or rejected holistically. To unpack that a little, by justification I mean reasons or evidence, explicit or perhaps even in potential, which logically can support a claim, establish it as valid, or otherwise ‘prove’ it. By discourses I mean systems, vocabularies, and repositories of symbols and communicative practices. Most simply put, relativism is the view that the truth of a statement is relative to something constructed and changeable, whether logical or cultural.

Relativism, more so than positivism and even realism, is a heterogeneous body of thought. Already, I have included within the category both the epistemic notion that superficially contradictory statements can both be true—since their truth is actually a function of their logical context—and the ontological notion that truth is a socially produced outcome of cultural commitments and values. As this suggests, relativism is not the subject of relatively unified philosophical projects or conversations, and in some respects is a sort of catch-all category for a range of perspectives that mostly have in common a *critique* of the notion that ‘objective’ knowledge or universal truths can be cumulatively amassed in ways that transcend or traverse cultural, moral, spiritual, and linguistic divides. Relativism is thus a sceptical reply to Baconian science. And it is therefore also hard to discuss as a coherent position, but by focusing on relativist claims about language and reference, a few common themes emerge.

One major theme in relativist thought is that language is fundamentally self-referential or even non-referential. Words ultimately refer only to other words (or to nothing at all), sentences arrange them, and denotation—the act of associating a word or symbol with an object—ultimately does not establish a

true reference relation, even if it is a recognisable social practice. This argument can be made at the level of logic, to propose a ‘coherentist’ epistemology according to which the truth of a statement depends on whether it is consistent with other accepted statements within a body of thought. This would be the implication of Quine’s conformational holism, as noted earlier. But it was also ‘ontologised’ in the view, no longer widely held but once popular, that linguistic or cultural meaning exists only within discrete structures of binary relations of opposing signs (such as light/dark or good/bad), and that sentences or utterances comprise hierarchical constructions of them (see, proto-typically, Levi-Strauss 1955). In the philosophy of science, Kuhn (1970) famously argued that structures or systems of scientific theories, methods, and commitments are ‘incommensurable’, meaning that it is impossible to fully translate between them or retain meaning outside of them. Especially for anthropological relativists, meaning and truth only arise from perspectives internal to structures of meaning, and thus the only coherent view is the ‘view from within’. To assess the truth of the statement ‘the cat is on the mat’, a relativist following this theme would thus look at whether it sits properly within the structure of symbols, rules, and evaluative practices employed by those making or apprehending it as an utterance or piece of text. Versus the naïve realist approach of, you know, taking a look.

Poststructuralists—who emerged as critics of structuralism in linguistics and anthropology, but who are also its descendants—are probably closer to the stereotypical understanding most non-philosophers have of relativism and ‘post-modernism’. The post-structuralist critique of structuralism, and of all formalisms, is that actual meaning is much more plastic, inconsistent, and undefinable than structuralists claimed, and that these flexibilities of meaning are obscured or monopolised by arrangements of power, normativity, and domination (Foucault 1980). Hence knowledge is not only contained within systems of meanings, or ‘discourses’, but also rests on supposed facts, procedures of justification, and styles of expression that exist for political reasons rather than for reasons of objective validity or accuracy. This does not make all claims ‘lies’, but it does make all ‘truths’ into dogmas of a sort, vulnerable to ‘de-construction’ that reveals contradictions, unjustifiable assumptions, and arbitrary standards.

This should make it most clear why relativists tend to mainly produce ‘critical’ scholarship: their epistemology is best suited to revealing the value-driven assumptions and politics that underlie even supposedly neutral facts and investigations, such as those in science and medicine, and uncover hidden relationships between ideas that are supposedly distinct. Intellectual history, cultural psychoanalysis, and semiotic mapping are their most common methods, and while these have clear standards of evidence and argument (relativists don’t think ‘anything goes’), they do not allow for the sort of cumulative theory-building or fact-finding characteristic of positivism and realism.

In the philosophy of science, it explains why relativist accounts either show that theories are suffused with gendered, racial, and ideological assumptions, or argue that progress is only possible within theoretical ‘paradigms’, which change largely for non-epistemic reasons (politics, the death of scientists committed to previous views, fads). It also reveals a non-arbitrary connection between theory and political liberation; when scholarship is designed to reveal how dominant political arrangements condition what people believe and how they reason, the outcome is an ‘insurrection of subjugated knowledges’ (Foucault 1980, 81), or can otherwise level the playing field for devalued or dismissed facts and methods. This is also true of other epistemological positions, notably the Marxian strand of realism in the social sciences, and it is unsurprising that many notable post-structuralists emerged out of the French socialist movement, or are engaged with Frankfurt School texts on ideology and power (see, for example, Butler 1990). However, where realists think that beneath ideology there are concrete structures, such as of class or capital, relativists think that it is ideology ‘all the way down’.

Left out of my focus on language as a way of understanding relativism has been a discussion of subjectivity. A crude stereotype of relativists is that they think ‘everything is subjective’, meaning that truth or knowledge is relative to people’s experiences, cultural positions, and ‘standpoints’. Some relativists emphasise the indefinability of experience, and this may seem to invoke something outside of language as a way of tracing its constraints. While this shows some limits to the brief sketches I offer in this chapter, it is also crucial to understand what ‘subjectivity’ means for most relativists: not something phenomenological, but something discursive—a position within a textual and symbolic arrangement. In other words, for (most) relativists, subjectivity is linguistic, and languages are always public, shared, and shaped by coercion and power. When subjectivity is understood in terms of experience, the resulting epistemology begins to look less like relativism and more like the final category I discuss: pragmatism.

Pragmatism

Among the most influential schools of epistemological thought in Western philosophy has been the view that theories, concepts, and claims are not so much ‘true’ or ‘false’ as they are adequate or inadequate as ways of resolving confusion or overcoming impediments to action. Pragmatists typically accept the impossibility of referring to something outside of language, but view the *use of language* as a form of world-ordering and of exploring the implications of assumptions. Like positivists, pragmatists focus on human experiences, but look for contingent ways of categorising them, rather than universal ones. This means all categorisation is ‘relative’ to interests, assumptions, dispositions, tastes, and whatnot, but it also acknowledges that there is a reality—undefined but resistant—against which theories can be tested. In a simple sense, the pragmatist

view is that a claim is either empowering or unhelpful, and the same may be said of any action, and not just the act of theorising.

There are different directions one can take the pragmatist view of enquiry. Some prominent pragmatists have advanced something closer to relativism (Rorty 1979) and others something closer to realism (Haack 2006), based in part on differences in opinion over the degree of similarity of human beings' experiences and constraints. These differences also stem from different traditions of thought within pragmatism, with William James and John Dewey advancing a more instrumentalist understanding of knowledge and Charles Sanders Peirce advancing a more realist one, at least in the sense of linking representations to something metaphysical (Hausman 2002). Dewey alone produced a vast corpus of work that generated an almost field-defining volume of criticisms, replies, and further articulations by later philosophers, on everything from cognition to aesthetics (see, for example, Alexander 1987). I could not possibly summarise these various avenues of thought, but it should be enough to connect them to original, very basic premises about what is actually happening when a claim is made or uttered, and what a justification does for it.

In the social sciences, pragmatism was influential in the formation of a number of sociological theories, but carries less weight as an epistemological school of thought in comparison to positivism, realism, and relativism. John Dewey, more so than other seminal pragmatists, shaped how social scientists have thought about truth and knowledge. For him, a theory is an attempt to solve a problem. A problem arises when we are unable to continue with some activity, and fundamental to the way we solve a problem, and resume our activity, is by defining and connecting our experiences of it through linguistic representation (Hildebrand 2008). A claim is 'warranted' when it is a reasonable thing to assert given the situation (Dewey 1938), and its 'truth' is a matter of its consequences for how we represent the world and find ways to act in it. In short, the meaning of a statement lies in how it is used to bring about certain kinds of outcomes, rather than in its semantic content.

On the one hand, pragmatist epistemology allows scholars to sidestep seemingly interminable debates over objectivity and truth, and just 'get on' with the practice of research (Sil and Katzenstein 2010), reflecting the view—likely widespread, if unarticulated—that debates about these things are unhelpful and probably unresolvable. Significantly, it is also part of a broader account of the makeup of the world and the human role within it (Pratt 2016), meaning that epistemology becomes a question of ontology (that is, of being) and methodology (that is, of the practice of investigating), which may make it seem more 'grounded' and less abstract. Pragmatist philosophy of science seems to sit at an appealing 'middle ground' that accepts many historicist and relativist critiques of scientific practice but still acknowledges 'empirical problems' as drivers of knowledge formation (Laudan 1978). It also offers many of the 'critical' possibilities of relativism when it comes to questioning the function of

concepts within discourses. For example, pragmatist philosopher Ian Hacking, in *The Social Construction of What* (1999), addresses debates over what it means to call something a ‘social construct’, and answers that whatever ontological questions the term raises, it is fundamentally an attempt to call attention to the cultural contingency and plasticity of a particular arrangement. This does not tell us whether social constructions are real—although a pragmatist may say that calling something ‘real’ is meaningless—but it does tell us why we might continue to talk about them.

On the other hand, pragmatist epistemology accomplishes these things by subordinating the truth of a claim to the purpose, intention, or ongoing activities of the person making it. For many, this is unsatisfying. For positivists, this denies the possibility of a genuinely objective and cumulative body of knowledge, and implies that science is not essentially different than any other process of investigation, making it difficult to treat scientific facts as any more reliable or authoritative. This may not sound like a huge sacrifice, and indeed, some positivists arguably had strong pragmatist affinities, along with strong commitments to socialism (Menand 2001). But for realists, pragmatism dissolves the ethical value of scientific enquiry: its ability to reveal how we are affected by the world in ways that are consistent regardless of whether we are of them. In the social sciences especially, realism is a critical project; realist theories and studies often examine how economic and ideological relations direct the outcomes of politics regardless of the beliefs we may have about them, and have the purpose of revealing ‘hegemonic’ structures so that we can go about changing them. Relativists will similarly find pragmatism problematic, as it seems to imply a conceptual and linguistic freedom of will that fails to account for the role of power and of hierarchies of meaning in discourse. As noted, relativism is also a critical project, and that project is significantly restricted if discourse is thought to be a tool of action, rather than a fundamental force that produces and conditions human beings into their particular subjectivities. Especially, then, for realists and relativists, pragmatism appears to sidestep epistemological debates only by ignoring their most important and challenging issues.

The stakes of taking a stand

Where one locates themselves within one of these categories is a significant philosophical decision. It has professional and disciplinary consequences, as already discussed, but it also has consequences for the type of work a scholar will do. Epistemological commitments have enduring implications for what sort of questions a scholar poses and how they answer them. It determines what the goals of research are likely to be, disposes research towards particular methodological approaches and away from others, and conditions what scholars can and cannot reasonably claim. It is not absolute in these implications, but scholars within a given tradition of epistemological thought who find it restrictive may struggle to justify unconventional research design choices. Yet to

‘change’ one’s epistemology is in some ways akin to changing one’s religion, in that it usually born either of ‘revelation’ or of long-growing anxiety and dissatisfaction, usually involves closely reading at least one important book, reorients many aspects of one’s life, and is not a ‘choice’ in the sense of, say, a decision about a method. In this section, I discuss some of the stakes and implications of these four epistemological schools, to make clear the opportunities and constraints they entail—for better or for worse.

Positivist social science is dominated by quantitative work for a reason. If a theory consists of an hypothesised causal relationship, and a causal relationship consists of a consistent correlation between two variables, then the more potential ‘cases’ a researcher can find and consider, the stronger their finding will be. While specific research projects may be limited to smaller numbers of cases, or involve the analysis of data that are hard to describe in mathematical terms, this simply means that research findings are likely to be less reliable. King et al (1994) are admirably clear in presenting ‘qualitative’ research as ideally a sort of provisional first cut at questions that eventually can be explored through quantitative, ‘large[r] n’ studies. Positivism obliges a fundamentally comparative logic of enquiry, not merely in the sense that all causal claims might be counterfactual (Lewis 1973), but in the sense that nothing can be concluded from a single case study, and thus the world must be divided into multiple cases and described in ways that standardise variables. A commitment to positivism will dispose scholars to focus on questions and critiques that can be sensibly approached in this way.

While this description may sound constrictive, positivists have many advantages in establishing broad conversations, audiences, and networks for research. By standardising data in explicit ways then analysing them according to explicit mathematical models, positivists make it easier to identify, criticise, or build on methodological decisions, share datasets, and develop areas of study into cumulative, cohesive research programmes. Methodological training can be standardised into obvious sequences on statistical analysis, and models can be ‘tested’ in clear, broadly familiar ways. Theories need not be ‘realistic’ in order to imply relationships in data, and thus rationalist theories of strategic interaction, conflict, or exchange, even if offering a caricatured depiction of human decision-making, can still be assessed as predictive instruments. It is often easy, as well, to derive ‘policy relevant’ advice from positivist research, because predictive power means theories can show the likely consequences of a given political decision.

Realists, on the other hand, have a harder task. They are likely to find the assumptions underpinning positivism to be both heroically broad and question-begging—in the sense that they presume answers to important critical questions. Realists are primarily interested in the study of single or small sets of cases, and devote considerable analytical attention to the elaboration of ‘causal mechanisms’, defined very broadly as the “the entities of a causal process that

produce the effect of interest” (Hedström and Ylikoski 2010, 50). Constructivist IR theory is predominantly populated by realists, whose “basic structurationist insight” (Price 2008, 204) is drawn from Wendt’s (1987) direct application of Critical Realism to the relationship between structure and agency. Realist social science often requires extensive historiography and creative research designs, where cases are chosen either for their political relevance or are a comparison set up to depict the range of possibility, rather than of probability, for a given process. To be a realist means giving up, in most cases, on the usefulness of correlational analysis (meaning statistical models are rarely useful), on caricatures or implausibilities in theories of actors (meaning rational choice models and much psychology are out), and on predictions about outcomes (meaning forecasting for policymakers is rarely possible). The benefit is that realists can confront audiences with findings that are hard to dismiss as generalisations and abstractions; realist research informs us of concrete relationships, interactions, and transformations. It purports to tell us how we arrived at our current state of affairs so that we can consider where we want to go next with a clear appreciation of who and what has power. While constructivist IR research has shifted away from explicitly critical aims (McCourt 2016), it began as an attempt to confront rationalist and positivist scholars with the incontrovertible and necessary influence of cultural variation and mediation in international political processes and events.

Relativists are even more constrained. Relativism shares the realist commitment to revealing the obscured necessities and possibilities that make something possible--a commitment to what Jackson (2010) refers to as ‘transfactualism’. However, for relativist social scientists the object of enquiry is not concrete or material social arrangements but discourses, and thus research is almost exclusively ‘discourse analysis’: the study of linguistic formations and language-use as arrangements or expressions of culturally meaningful symbol(ism)s. This requires extensive, deep anthropological and linguistic knowledge, to pick up on the connotations, hidden presumptions, metaphorical associations, and symbolic hierarchies in cultural texts, narratives, and records. While realists can, in a sense, subsume this within their broader epistemological and ontological framework (Elder-Vass 2010), most methodology and theory on discourse analysis rests on the view that language decomposes only into more language, and thus that the realist aspiration to speak of something beyond it is doomed from the start. Instead, relativists specialise in finding and elaborating how supposed facts, certainties, and taken-for-granted truths rest upon ideologies, interests, and foundational myths--or are simply self-refuting once their internal contradictions are revealed. This is a ‘critical’ project, aimed at blunting or resisting authority, but it is therefore often an unwelcome one, for positivists and realists, because it undermines the power scientists wield in their public and advisory capacities. Indeed, for this reason relativists may identify more closely with disciplines in the humanities, and view the category of ‘social

science' as an illegitimate attempt to bestow projects of social engineering with 'objective' credibility.⁵

Of the four, pragmatists have both the easiest and the hardest epistemological imperatives. Pragmatism makes things easier because it dismisses "the quest for certainty" (Dewey 1929) as a distraction or misapprehension of the actual purpose of enquiry, which is to empower human endeavours. This appears to offer a clear, even ecumenical metatheoretical test for research: 'is it helpful?' Ontologically, pragmatists usually focus on action rather than actors or structures (Pratt 2016; 2020), but focus on single case analysis or on limited comparisons. Pragmatists commonly look at both causal mechanisms (Gross 2009) and discourse, and can offer some of the same forms of critique as realists and relativists, but this does not define their project in the same way. Hence pragmatists can engage fruitfully with positivists, realists, and relativists, so long that engagement is oriented around the helpfulness of theory as a way of solving some kind of conceptual or empirical problem getting in the way of directed action. But in the end, these engagements will never result in true agreement over the purpose of theory or the status of factual claims, because pragmatists do not share positivist and realist commitments to objectivity and linguistic reference, nor the relativist commitment to treating discourse as the sole constituent element of social life. The pragmatist vision of science is highly provisional and not connected to any overarching narrative of progress or of resistance. For many scholars, pragmatist epistemology is morally and politically unsatisfying, and thus not appealing.

Again, none of this is to suggest that epistemological commitments can be selected as if from a menu of options. Discussing the ways positivism, realism, relativism, and pragmatism have methodological advantage and disadvantages is only to highlight that each school of thought implies a whole package of research goals, directions, and approaches, and all have certain disciplinary limits. The purpose of this section, and of this chapter more generally, has been to make clear the range of epistemological thought and possibility in the social sciences. Philosophical allegiances are almost always the outcome of years of acculturation and education, but it helps to know the perspectives 'out there', especially for those who have otherwise only been exposed to one particular one.

Concluding remarks

Epistemology is a complex and often very abstract body of philosophical thought. For many students of international politics, it is their bad luck that so many scholars in the field insist on talking about it, and as I have tried to show, much epistemology-talk is aimed at litigating disciplinary disputes, with no clear connection to the actual practice of research. This is because epistemology *does*

⁵ Within IR, scholars in the emerging 'visual turn' explore the methodological implications of scepticism of the epistemic character of description, working from the premise that images contain an affective horizon never fully articulatable through words alone (Bleiker 2018).

not actually have much connection to the concrete practice of research, meaning the iterative disciplinary process of producing, criticising, and elaborating scholarly and scientific products. However, without a clear idea of what truth, meaning, theory, and science are—and what they are *about*—it is hard to know why one’s research practice looks as it does, or what can legitimately be done with it. I have greatly valued my time spent reading and reflecting on this subject, and it has definitely shaped the way I conduct my work as a social scientist. I do not, however, blame the unnamed graduate school classmate whom I quote in the epigraph to this chapter for their difference in opinion.

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