Epistemology
How We Know

> Pragmatism asks its usual question. 'Grant an idea or belief to be true,' it says, 'what concrete difference will its being true make in anyone's actual life? How will the truth be realized? What experiences will be different from those which would obtain if the belief were false? What, in short, is the truth's cash-value in experiential terms?'
>
> (James, 1907, p. 97)

This chapter examines epistemology, namely, the often-implicit theories of how knowledge is made that guide our research and methodological choices. One of the reasons why epistemological assumptions are central to methodology is that they outline what kind of knowledge is considered truthful or valid and false or coincidental. Scientific research is mainly concerned with distinguishing truth from error and, as such, necessarily makes commitments regarding the nature and acquisition of knowledge. As we will discuss in this chapter, these commitments go beyond simply identifying criteria for what can pass as valid conclusions and reflect deeper understandings of our place in and relation to the world: Are we in a privileged position to uncover universal Truths or are we unable to escape human biases? Does truth emerge from human action or rational contemplation? Is truth "objective" or "subjective" (relative to our perspective)? And, if the latter is the case, how can we claim to be sure of anything? What kinds of societies would we live in should there be no truth we could all agree on?

We start this chapter with a brief discussion of what it means to live in a society where the factual basis of truth can be undermined – the post-truth climate many are decrying today as a global phenomenon and for which Western democracies seem to be ill-prepared. We outline several popular conceptions and misconceptions about epistemology and then map out the prominent epistemological positions. In the second part of the chapter, we argue for pragmatism as an epistemology that can help us deal with the complexities of doing empirical research in a post-truth context by

transcending the old realist–relativist divide and fostering methodological pluralism. In doing so, we argue for knowledge that works and thus develop our first pragmatist proposition *that truth is in its consequences.*

2.1 The Post-truth Context

The problem of what passes for valid knowledge is debated in society today well beyond the confines of universities. For millennia, philosophers have been concerned with the issue of truth and, as we will see, came up with various criteria for what is truthful. But the "crisis of truth," particularly in public debate (e.g., Trump, Brexit, vaccine hesitancy), has prompted "lay" people to reflect on truth and seek to expose misinformation. Post-truth became more than a label; it was named "word of the year" in 2016 by *Oxford Dictionaries* after a 2000 percent spike in usage (McIntyre, 2018). It also turned into an obsession for people on both sides of the political divide who are eager to accuse each other of contributing to the current climate. And yet, for those who study epistemology, this heated societal debate does little more than place the proverbial old wine in shiny new bottles.

This chapter is concerned with how we know and validate what we know and how these issues feed into social science methodology. While the topic of post-truth is beyond our scope here (for more detail see Baggini, 2017; Kakutani, 2018), old and new debates about the nature of truth provide the background for our specific methodological focus. They are also a useful reminder of why epistemology matters. To set up this background, we examine conspiracy theories, a key term within the post-truth vocabulary, to demonstrate how specific conceptions about gaining (valid) knowledge guide research.

2.1.1 The Trouble with Conspiracies

Conspiracy theories present us with an interesting paradox when it comes to uncovering the truth. They propose a worldview in which hidden but powerful actors influence events without us ever noticing them (Douglas et al., 2019). To hold a conspiracy theory, then, is to make sense of something that is either unexplained or explained in different terms. In some ways, it is to doubt and question given knowledge, to deconstruct what is usually taken for granted, and to criticize power structures – which is often considered a valuable practice, including in research. The problem with conspiracy theories is that many of them are demonstrably untrue (but not all; some emerge when we do not have any definitive answers, and others are impossible to prove wrong) and, even more, they prompt

those who hold them to construct explanations that serve their worldview and resist reasonable evidence. So, what exactly can we study about them?

Overall, researchers have been concerned with three main aspects of conspiracy theories: what triggers them, what they correlate with, and what their consequences might be. To take a concrete example, Swami and colleagues (2014) reported various studies showing that analytic thinking reduces belief in conspiracy theories. They investigated this relationship in both correlational and causal terms, finding that there are statistically significant associations between specific thinking dispositions (e.g., lower analytical thinking, lower open-mindedness, and higher intuitive thinking). But there is more than co-occurrence at play: Stimulating analytical thinking, for instance, through a verbal fluency task, led to less belief in conspiracy theories. These findings have been replicated on general population samples focused on conspiracies around the July 7, 2005, bombings in London. The practical consequence of these studies is plain: If we can stimulate analytical thinking, then we might be able to fight conspiracist ideation. However, this intervention is based on the assumption that one specific mental process underpins a variety of conspiracies, ignoring differences between beliefs and the groups or communities who uphold them. Research done in this individual differences tradition, therefore, focuses on the person and their psychological attributes rather than the beliefs themselves and the societal contexts in which they are formed.

In contrast, Moscovici (1987) discussed conspiracies in intergroup terms, arguing that when social and economic conditions toughen, specific minorities start being accused of conspiring against the majority, usually with the help of foreign enemies. This approach goes beyond the particular psychological profile of those who believe in conspiracies (although dogmatic and ethnocentric thinking are possible precursors) and focuses on the conspiracy mentality as a whole, as a form of collective thought. Conspiracies grow out of an often-irrational fear of minorities and "strangers" and the challenge of accepting minorities as different. This view might strike one as rooted in a psychodynamic frame of group relations, and in many ways, it does reflect a concern for emotional and social dynamics. But it also presents us with a different research question: What do conspiracy theories tell us about groups that create, espouse, and propagate them?

2.1.2   The Role of Epistemology

On the surface, one might say that Moscovici (1987) and, more recently, Swami and colleagues (2014) are simply guided by different questions.

We can even relate these questions back to the different theories they use, social for the former, cognitive for the latter. What we will argue in this chapter is that the differences run deeper and are, in fact, epistemological. They showcase two broad assumptions about what shapes conspiracist knowledge – that is, psychological attributes versus collective forms of thought – and, in turn, about how we can produce (valid) knowledge about conspiracies – that is, through a study of cognitive processes versus one of minority–majority relations. At a deeper level, Swami and colleagues (2014) assume that there "exist" such things as thinking dispositions, that they are relatively stable at an individual level, and that they can be effectively measured (and elicited when needed). On the other hand, Moscovici assumes knowledge is distributed between people and groups in society and growing out of interactions and power imbalances rather than (isolated) thinking processes. These explanations can be complementary but, taken separately, they also reflect different understandings about the acquisition of knowledge in the social arena, realist versus constructionist, understandings that unavoidably shape its empirical study.

2.2 (Mis)conceptions about Epistemology

2.2.1 Epistemology Guides Research

Epistemology guides the research, but often in "invisible" ways (Roots, 2007). On the one hand, epistemological concerns are often left implicit, particularly in studies that use standard methodologies where collective habit means there is no need to justify methodological choices. On the other hand, methodological training often suffers from a dearth of epistemological discussions seen either as too philosophical or too complex for empirically minded researchers. This is a missed opportunity given that every aspect of a research project – starting from the question and choice of topic to what is considered data and ending with how these data are analyzed – reflects epistemological choices. As epistemology concerns the researcher's theory of knowledge and the criteria used to validate knowledge, it always remains an integral part of a study, even when left unexamined.

To take a classic example from research on conspiracy theories, Goertzel (1994) surveyed 348 New Jersey residents about ten different conspiracies and found that most believed that at least some of them were probably

true. Even more interesting, he discovered that those who believed in one conspiracy were more likely to believe in other conspiracies. Based on a correlational design, he also showed that beliefs in conspiracies are associated with a series of other personal and psychological characteristics like lack of interpersonal trust and insecurity about employment. Ethnicity and age also played a role with black and Hispanic participants, and, to some extent, young people, being more likely to believe in conspiracies. No significant findings were reported for gender, education, and occupation.

This study draws on a social psychological approach in which the basic assumption is that specific psychological characteristics (primarily related to cognition and personality), as well as specific social variables (group memberships captured by basic demographic categories), will impact a person's beliefs and behavior (in this case, beliefs in conspiracy theories). In other words, to get to know why some people are sensitive to conspiracies, we need to collect information about their other beliefs, preferences, and identities. Second, we can collect knowledge about any of these by using self-report measures, assuming both that the respondents understand and report on the variables used in the study and that they, on the whole, are not motivated to deceive the researcher. Third, the statistical methods used to process the data – primarily correlational analysis – are based on the supposition that beliefs and preferences can be translated into a numerical form. It rests on the assumption that beliefs can be measured, that there are meaningful units of belief, and that two units of belief are more than one unit. These are realist assumptions. They are based on the view that valid knowledge about beliefs can be gained from empirical research in which psychological and social variables (in all their diversity) can "really" be captured using categories and scales. Moreover, the role of the researcher and his or her beliefs is not reflected upon (e.g., deciding which theories are conspiracy theories), the sociocultural and normative context in which conspiracies develop and circulate remains unquestioned, and there is little interest in the subjective experience of the participants (from the lived experience of a conspiracist mindset to that of taking part in a study on this topic) or the practical aims conspiracy theories might serve (e.g., they may function to create communities, to channel dissatisfaction, or to make the inexplicable explicable). Of course, these issues could be addressed in additional research, but our point is that the epistemological lenses used limits what can be asked and studied. If a psychological trait "exists" within the person, then it cannot be, at the same time, stable and constantly reconstructed within the ongoing flow of experience. The

former view allowed Goertzel to run correlations, the latter might have pushed him toward new, phenomenological questions and concerns; both these approaches contribute something different and potentially useful.

2.2.2 Epistemological Purism versus Pluralism

A common misconception about epistemology is that researchers necessarily embrace a single theory of knowledge. Continuing the earlier example, this would mean that studies of conspiracy beliefs would necessarily adopt either a realist epistemology, which claims that beliefs exist within the individual mind and can be objectively measured, or a constructionist epistemology, which claims that beliefs are constituted through language (discourse) and cannot be studied outside of their particular context (e.g., Bjerg & Presskorn-Thygesen, 2017). In other words, the realist epistemological approach focuses our attention primarily on the individual and asks what exactly makes them adopt a conspiracist mindset. It thus leads to explanations that have to do with particular cognitive styles, personality structures, and even forms of psychopathology (e.g., paranoia; Imhoff & Lamberty, 2018). In contrast, the constructionist epistemology makes sense of conspiracies in sociocultural and discursive rather than purely psychological terms. It does not, as such, pathologize conspiracies but tries to understand them as forms of meaning-making by individuals who are part of communities that foster such forms of knowing; conspiracies become efforts "to explain some event or practice by reference to the machinations of powerful people" (Vermeule & Sunstein, 2009, p. 205). Can a study bridge both epistemological approaches?

Most research, even when grounded primarily in one epistemological position, does engage with or at least acknowledge other approaches. In an influential paper about misinformation and how it can be corrected, Lewandowsky and colleagues (2012) start from the premise that misinformation and conspiracies originate from a variety of social, cultural, and ideological sources such as rumors, works of fiction, and the vested interests of specific groups in society. The use of new media is also considered, especially regarding the transmission of misinformation. This contextual approach is complemented by a review of individual-based cognitive factors that make people resistant to efforts to correct false beliefs. Typical psychological processes are discussed in this regard, from the memory for misinformation to personal worldviews. It is the latter rather than the former that offers the basis for final recommendations as to how to fight misinformation, online and offline, including through public information

campaigns. On the surface, Lewandowsky and colleagues consider, side by side, knowledge as socially constructed as well as knowledge as cognitively situated. We could say that their work draws, as such, on multiple frameworks that span cognitive and social psychology with potential interdisciplinary connections, from neuroscience to sociology. Is this also an issue of epistemology? Yes, on two levels. From the standpoint of misinformation and conspiracies as forms of knowing, we are presented with different assumptions about the origin, processes, and consequences of such beliefs. How these assumptions are prioritized, and, at times, integrated, is reflected in particular in the correctional measures proposed. At the level of producing scientific knowledge about misinformation and conspiracies through research, epistemology is markedly pragmatist. The researchers are concerned by not only how knowledge can lead to changes in the world but also how knowledge coming out of different traditions, each with its own epistemological underpinnings, can serve this purpose.

2.2.3   The Limits of Epistemology

Finally, each epistemological stand has its limits and serves some human interests better than others (see also Chapters 4 and 8). If we want to educate individuals separately about misinformation and conspiracy theories, then we are best served by understanding their system of beliefs and the relatively stable traits and processes that might support a general conspiracist mindset. For instance, research by Lewandowsky and colleagues (2013) pointed to several predictors of people denying climate change and being skeptical of science, all situated at an individual level. In this case, endorsement of free-market economics and belief in other conspiracy theories predict the rejection of climate science. This is certainly useful to know for two reasons: It can help construct a more detailed (psychological) profile of those who are likely to uphold and even spread misinformation and can guide those who built programs for fighting misinformation. But this kind of realist positioning regarding the existence, stability, and measurability of psychological traits can easily obscure how people's conceptions and misconceptions are forged through action and interaction. For the latter, the problem is less how people are, or how they think, and more what kinds of interactional contexts and dialogues they are part of (and there is a growing literature on modeling behavioral trajectories online; Cresci et al., 2020). In each case, however, the basic assumption is that behind either the person or world there is a simple structure that can be revealed in patterns and associations (see also Chapter 3). This structure just becomes

more complex as we study or understand it further. The effort to still reduce it to its essential components is a trademark of positivist science. More radical epistemological positions would challenge these assumptions and point to a world in flux in which individual or social patterns, if they exist, are continuously being reconstructed. Hence, the human interest best served here would be to capture evolving complexity. It might lead to less tools for practical action, but it is well equipped to help us understand phenomena holistically.

In the end, we cannot explain everything with a single epistemology, and there is no absolute epistemological standpoint to adopt: They each have value when measured against specific human interests and concerns. This is not to say that they are all equally useful in practical terms. In fact, the pragmatist approach, which we adopt, advocates for pluralism in methodological terms, matched by sustained critical reflection.

However, just as epistemologies emerge as tools (see also Chapter 3) that can be used to highlight various aspects of a phenomenon – shedding light on patterns or their transformation, on individual properties or types of dynamic, on similarities or differences – we cannot ignore their consequences, some of which are intended, some of which are not. Positivist science can be reductionist and exclude marginal positions from its understanding of reality. In contrast, constructionism points to the coconstruction of psychological and social phenomena in the course of action. The postmodern embracing of the latter takes us further and can be used to question whether a stable single reality exists. And it is precisely this last, radically relativist, epistemology that is often blamed for the current post-truth climate. As such, in order to grasp the limits of different epistemological standpoints, we need to take yet another detour through the context that made "post-truth" the word of the year in 2016 and a major nuisance since.

2.3   The "Death" of Truth?

It was Aristotle who offered us one of the most straightforward definitions of truth, when he wrote: "To say of what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true" (Baggini, 2017, p. 4). The correspondence between the meaning of a statement and the events in the world that correspond to this meaning has been used through the centuries to distinguish valid knowledge from lies and misinformation. But, as with all things related to knowing, its power is derived from adopting a particular epistemological

standpoint, in this case, a realist one that satisfies three basic preconditions: (1) Language as a medium for expressing thought carries meanings that can be decoded unambiguously; (2) we can perceive "correctly" events in the world and construct mental images that we then compare with the (unambiguous) meaning of statements about the world; and (3) our statements are separate from the world and can more or less mirror the world (see also Chapter 3). The devil, for some, is hidden within these claims.

2.3.1   Definitions of Truth

The post-truth era entails attacks on these assumptions. On the one hand, we have many examples of denying the veracity of people's senses, for example, in Donald Trump's (in)famous assertion that he had one of the largest audiences at his inauguration. The very notion of "alternative facts," uttered in this context, delivers a mighty blow to old correspondence theories of truth – if everyone can choose what facts they prefer, and if "alternative facts" are as socially consequential as "traditional facts," then the need for a match between statements and the world becomes obsolete. This crisis of truth is exacerbated by an avalanche of misinformation and outright lies presented on social media that, even when not fully trusted, still raise the question of what is the case and whether we would ever be able to know it. And then, there are attacks addressed to language and its capacity to convey clear and unambiguous messages. Trump, again, was a rather skilled participant on Twitter who used this platform to make incendiary comments (e.g., saying there were "very fine people on both sides" when it came to neo-Nazi demonstrators in Charlottesville), often misspelled (e.g., the viral "covfefe"). Without ever backtracking or apologizing for his views, when pressed about his intended meaning, he would claim that his statements were being misinterpreted, especially by the "fake news media." This tendency to question whether saying something does count as what has been said came to a head during the Ukraine inquiry in which the meaning of quid pro quo started to be problematized to the extent to which conditioning help on the offer of "a favor" was no longer irrefutable proof of it. These, and many similar processes in our contemporary public sphere, put into question the capacity of language to unambiguously mean something about the world and people's intentions.

Academics and journalists have identified many culprits responsible for the crisis of truth. On the one hand, we can point to societal-level phenomena such as the decline of reason, the rise in science denial, and the new culture wars (Kakutani, 2018), and, added to this, the quasi-collapse of traditional media outlets paired with the low entry costs for unreliable

"journalism." On the other hand, we are directed toward psychological phenomena assumed to be universal in human beings, like the cognitive biases that make us sensitive to information confirming our initial beliefs (McIntyre, 2018). But most commentators agree that a big part of the "blame" is to be attributed to social media and their use to create silos and tribes, as well as spread fake news and propaganda (Ball, 2017) – although some consider the role of social media overestimated (Guess et al., 2018). A new and exciting medium that was supposed to democratize our access to information and, more importantly, to other people and their view of the world has been turned by conspiracists, internet trolls, and malicious bots into a war zone in which those who spread misinformation are better equipped and more agile than those who want to correct or censor them. As D'Ancona (2017, p. 52) aptly noted regarding social media, "never has the old adage that a lie can travel halfway around the world while the truth is putting on its shoes seemed so timely." However, one more rather unexpected actor contributes to the post-truth climate: academics. Not all academics, to be sure, but those in the social sciences and humanities who, inspired by thinkers like Derrida and Foucault, have embraced postmodernism and proclaimed it as a new era of radical doubt and of dismantling all sorts of hegemonies – among them, the hegemonic and seductive power of the single unquestionable truth.

2.3.2 *Blaming Postmodernism*

The debates about epistemology, which used to inhabit mainly philosophy classes, have spilled into society in post-truth debates and attempts to distinguish between accurate and damaging understandings. The debates are acute for postmodern readings of truth that relativize it and turn it into a matter of discourse and opinion. There are undoubtedly many versions of postmodernism, and not all of them embrace an extreme form of relativism, but on the whole, "postmodernist arguments deny an objective reality existing independently from human perception, contending that knowledge is filtered through the prisms of class, race, gender, and other variables" (Kakutani, 2018, p. 47). The simple Aristotelian formula is found to be lacking, and any "God's eye view" that claims objectivity is deconstructed. While this sounds like a practice with devastating consequences in our current political climate, it is worth remembering that postmodernist thinkers aimed at recognizing multiple forms of knowing and at empowering the oppressed against those who wanted to impose singular views of the world and, through them, to control their life and experience (e.g., scientists, clergy, governments). Coming from art, literature,

architecture, philosophy, sociology, and psychology, the promoters of this position often embraced the epistemology of social constructionism (e.g., Berger & Luckmann, 1967). This allowed them to advocate for more pluralist societies in which the working of power is exposed and its bases in predetermined ideas of goodness, beauty, and truth constantly questioned.

The academics who contributed to postmodernism in the 1980s and 1990s, mostly left-wing intellectuals who had hoped to build more egalitarian and diverse communities, could hardly have imagined that their epistemological arguments would be used in the early twenty-first century by far-right commentators and conservative politicians to destabilize consensus, radicalize individuals and groups and brand anything that does not conform to their worldview as "fake news." Beyond the act of lying, which still needs the acknowledgment of truth to subvert it, post-truth social actors question the very existence of truth and turn it into a matter of perspective. What counts as truthful depends, as the postmodernists argued, on who makes the truth claim, and in polarized societies, this means that disregarding truths that make one uncomfortable becomes as easy as promoting one's own truth, even if devoid of evidence. This formula was used to, paradoxically, ensure that the oppressors remain in power. As McIntyre (2018, p. 145) laments, "what a complete misfire of the original politics that motivated postmodernism, which was to protect the poor and vulnerable from being exploited by those in authority."

What is the way forward? Fortunately, we have entered a period of sustained reflection, in academia and society at large, about what counts as truth and how we build common ground based on evidence. The current challenge is to understand the radical critique posed by postmodernism and recover the positive aspects of its practices of deconstruction – for example, the ability to criticize the operation of power – without falling back on simple (and often simplistic) positivist criteria for what counts as valid knowledge. We need, as Caputo (2016, p. 9) proposes, to "defend the plurivocality, ambiguity and non-programmability of truth while also defending the right to say that some things are not just different, they're wrong." To reach this desired state, however, we need to come back to epistemology and understand the positions in more depth with their advantages, limitations, and possibilities for research.

2.4 Mapping Epistemological Positions

We started by noting that epistemology concerns the theory of knowledge and, as such, has significant consequences for empirical research, first and foremost, by addressing the possibility of gaining valid knowledge and,

second, by offering criteria for it. But "what constitutes valid knowledge" is not the only focus of epistemology. In fact, while the issue of ontology, or the theory of the world as is, tends to be kept separate from the epistemological – in that one can make epistemological claims without making ontological claims, and vice versa – the two commonly build on each other (Al-Ababneh, 2020). After all, how can we claim the world is "knowable" if we do not have a theory of what the world is and of our place within it?

In this section, we will review some key epistemological positions (see Figure 2.1) above and beyond realism and positivism, as markers of modernity, and constructionism and relativism, as markers of postmodernism (our definition of these positions is based on Blackburn, 2005). When we think about epistemology in its relation to ontology and, as we shall see later in the book, to ethics, we notice various questions that are fundamental for research. Key among them are:

1. What is the nature of reality? And in what sense does it exist?
2. What governs the world and nature? Are there universal laws behind them?
3. What types of truths are we looking for?
4. How do we reach valid or truthful knowledge?

While the great bulk of empirical research does not set out to directly answer these questions, all research is premised on a specific understanding of each of them. Returning to the case of studies of misinformation and conspiracy theories, most of the research mentioned earlier starts from the assumption that there is indeed a reality "out there" against which truth claims can be judged. How could we otherwise distinguish information from misinformation? It also assumes that there are patterns behind the generation or spread of (mis)information and, in fact, this is often what empirical studies aim to explain (e.g., how personality traits or sets of beliefs, social interactions, and wider ideologies give the phenomenon a certain regularity). The truth looked for is often that of "objective" fact – pitted against the assumed lack of objectivity of conspiracist beliefs – and this truth can be discovered only empirically.

Before discussing the details of each epistemological concern, the positions associated with it, and their implications for research, it is important to note that the "map" included in the figure does not aim to be exhaustive (for a more in-depth discussion of the metaphor of maps, see Chapter 3). Each epistemological standpoint tends to have a great degree of complexity and also a long history of debate in philosophy and in science, a kind of richness that is necessarily simplified in this section. Not only is it the
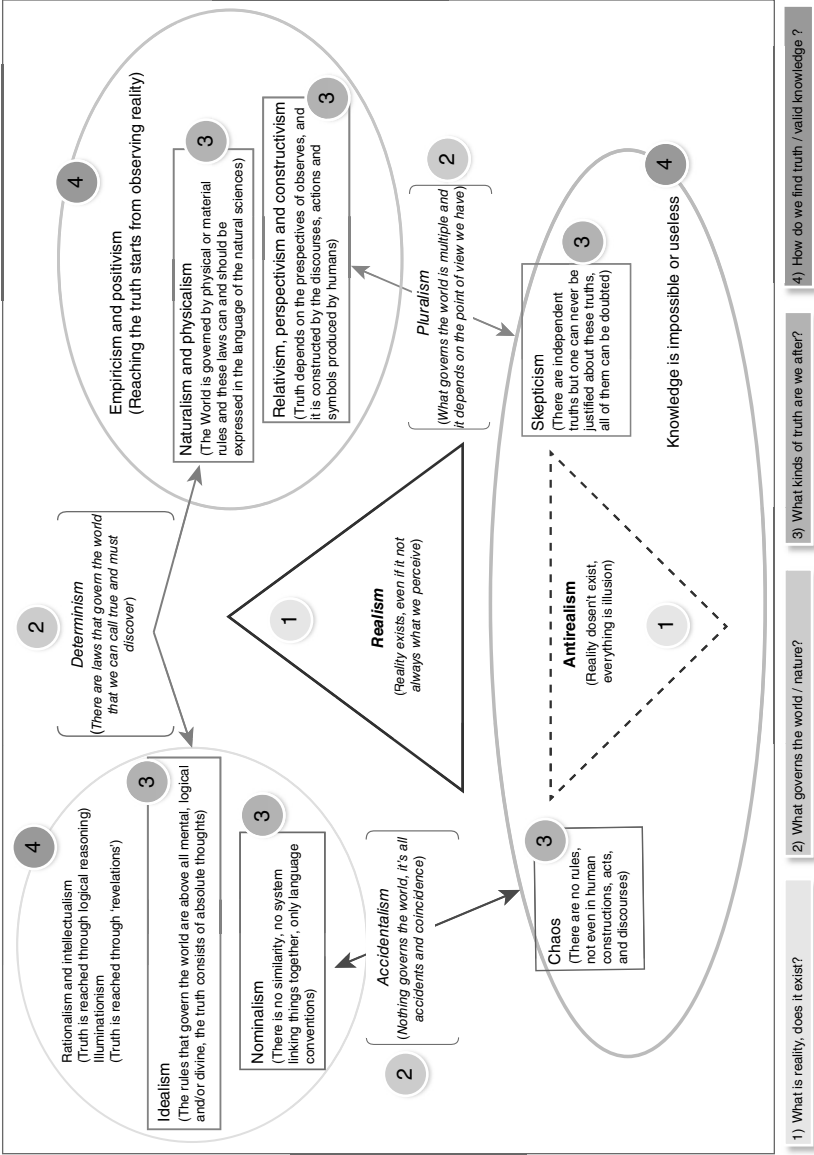
Figure 2.1 Mapping epistemological positions and the relations between them

case that new positions could be added to it but the schema could potentially be reorganized when considered from new angles (e.g., through the lenses of other questions). This particular representation does, however, have a few advantages. First of all, it covers considerable epistemological ground, highlighting what is usually depicted as a "fight" between realists and idealists or relativists, between modernity and postmodernity. Second, it specifies a set of relations between various positions, showing that even those orientations that might look like opposites could have some shared assumptions or be brought together by a similar view. Finally, this map can be used by researchers to reflect on the epistemological (and ontological) assumptions embedded in their own studies, helping them find their place while, at the same time, considering this place vis-à-vis a broader picture.

2.4.1   *The Question of Reality*

Regarding the question of reality – a key theme in today's post-truth debates – we find two opposing views in the center of Figure 2.1: realism and antirealism. As the name suggests, the former recognizes the existence of reality, often independent of any perceiver, while the latter makes the rather provocative claim that there is no underlying reality to the world, often assuming that everything is constructed by the senses and minds of individual perceivers. This is, according to Bhaskar (1975), an "epistemological fallacy": Just because we cannot know the world as it is, it does not logically follow that there is not a world independent of us. While it might seem, on the surface, that antirealists would have a hard time arguing their case, the "reality" of the matter is much more complex than the usual accusation that imagining the world differently will not actually change it (e.g., believing the incoming train is not real will not save anyone from the consequences of the impact). A famous thought experiment, sometimes attributed to George Berkeley (Campbell & Cassam, 2014), is captured by the following question: "If a tree falls in a forest and no one is around to hear it, does it make a sound?" A widely accepted answer is that, in fact no, it would not make a sound if there is no (human) ear to hear it *as* a sound. It will produce, however, air vibrations because these do not depend on the presence of an observer endowed with the biological and psychological mechanisms needed to turn vibrations into sound. From a research perspective, this basic epistemological positioning can easily become problematic, with some researchers studying social phenomena in a realist tradition when they could be better served by a deeper

consideration of perceiver-dependency, while others are doing the reverse (see Parker, 1998). In the concrete field of misinformation research, this epistemological dilemma is particularly poignant as it makes the difference between, for instance, considering conspiracies as outright dangerous lies and as meaning-making mechanisms with some value for the person (as misguided as they are).

2.4.2   The Question of Universal Laws

If we can indeed agree that some form of reality does exist, even if it is, in the extreme, the psychological reality of the perceiver or thinker (Descartes, 1637), then the next epistemological question becomes whether it is orderly enough to derive valid knowledge about it. In other words, we need to know if the world follows knowable norms and principles. The big dichotomy here is that between determinism and accidentalism. The former claims that the functioning of the world is determined by a variety of factors, at least to some extent. In the example of research on misinformation and conspiracies, these can be psychological traits and mindsets but can also be societal norms and patterns of social interaction (and, indeed, both these categories are widely studied; D'Ancona, 2017; Lewandowsky et al., 2017; McIntyre, 2018). Nonetheless, perhaps it is not universal laws that govern the universe but chance, accident, and coincidence. This is not an epistemological position often found in scientific research simply because science is grounded, to a great extent, in prediction and there is no prediction without determinism (Cleland, 2011). And yet, concerns specific for accidentalism do come up in scientific research, especially concerning accidents and serendipity, quantum mechanics, and complexity theory (especially the idea of sensitivity to initial conditions; Byrne & Callaghan, 2013; Guastello et al., 2008). Interestingly, the debate does not have to fall back on extreme positions. We can also identify a pluralistic epistemological stance according to which reality is rules-based, but these rules are multiple (or probabilistic) and knowing them (also) depends on the position, in the world, of the perceiver. This is not a stance specific to constructionism as much as it is for pragmatism, as we shall see later on.

2.4.3   The Question of Types of Truth

A third epistemological question that gets us close to what we would normally consider core epistemological issues is what types of truths we are looking for. For example, Truth with a capital "T" is timeless, independent

of humans, while truth with a lowercase "t" is related to direct observations and experiences of the world, dependent thus on humans (and often referred to in plural, as truths). Interestingly, as depicted in Figure 2.1, the answers to this question cut across the determinism–accidentalism–pluralism and even the realism–antirealism divide (leading to the associated risk of not realizing that there are still fundamental differences between these approaches). Starting from a position similar to antirealism, for which true knowledge is either impossible to achieve or illusory, we have traditional skepticism on the one hand and pure chaos on the other. The first doubts the possibility of ever fully knowing reality while the second challenges the existence of any deep-level regularity in the world (an assumption that brings it close to accidentalism). It is interesting to note, in this context, that conspiracist mentalities are often grounded in skepticism rather than chaos in the sense that those who share them do believe that things happen for a reason, even when this reason is concealed (hence the connection between paranoia and belief in conspiracies; Imhoff & Lamberty, 2018). Idealism and nominalism are the other two epistemological positions that point us toward where we can find Truth about the world: not as much in what we perceive and do, as in what we imagine, think, and talk about. For idealists, the rules that govern reality are primarily psychological and symbolic. For nominalists, language conventions give substance to our world as human beings (and not a set of internal or external rules). These orientations have a lot in common with but are different from constructionism, perspectivism, and relativism as epistemologies that make truth relative to the context of the observer and their perspective (and are commonly seen as the main postmodern culprits in the war against Truth; D'Ancona, 2017). In reality, however, not all constructionist arguments need to be relativist or antirealist, just as not all perspectival philosophies follow an "anything goes" philosophy. What these orientations are not, however, is naturalist or physicalist. They are, thus, far from the assumption that only materiality really matters and that everything that is thought or language can, at best, express what is real and, at worst, mislead us about it, but cannot shape or change it (in the way a range of other epistemologies, from idealism to constructionism, would claim). And these "best" and "worst" scenarios bring us to the final question: If we can build knowledge, is this knowledge valid?

2.4.4 *The Question of How We Reach Valid Knowledge*

This last question builds on the previous three and, as can be seen in Figure 2.1, it connects to three main epistemological clusters: the antirealism pole,

on the one hand, and the dichotomy between rationalism/intellectualism/ illuminationism and empiricism/positivism, on the other. The first pole denies the possibility of knowledge, and as such, it can substantiate conspiracist and post-truth views of the world but not scientific research. The old-age debate between rationalism and empiricism (see Markie, 2004), however, is intrinsically relevant for any discussion of methodology. In essence, rationalism and intellectualism postulate the predominant role of reason or the intellect when it comes to accumulating knowledge about reality while empiricism, as the name suggests, focuses our attention on the empirical world and the knowledge we obtain about it from the senses; with positivism, there is also the assumption that we can do this with a high degree of objectivity. Most research in psychology and the social sciences – including misinformation research – builds on empiricist and positivist assumptions, above and beyond their naturalist or constructionist inclinations (although this has not been the case historically, see Jovanović, 2010). It is, after all, for good reasons that most scientific studies are said to conduct "empirical" research. This means that, if procedures are presented in a systematic and transparent manner, then researchers are allowed to claim not only valid but objective knowledge (which means, among others, knowledge that could be generalized to multiple contexts, independent of the scientists or participants). Rationalism shares, in fact, the same drive toward universal claims but places the origin of true knowledge elsewhere, in the workings of rationality. As a consequence, theory-building takes priority over empirical studies, which can support or refute the theory but cannot, in and of themselves, produce knowledge without the involvement of reason. At the other end of the spectrum, empiricists would aim to take the minds of researchers out of the equation because of their intrinsic biases and general fallibility and, instead, let the data or evidence "talk." Is there a different path available – not a middle but a third one?

2.5   Epistemological Pragmatism and Methodological Pluralism

2.5.1   *Weaponizing Doubt*

In a landmark book, Conway and Oreskes (2012) describe how a handful of scientists obscured the truth on issues from tobacco smoke to global warming. They documented the successful campaign by tobacco companies in the 1950s to plant the seeds of doubt regarding otherwise

overwhelming scientific evidence that smoking causes lung diseases. And they also showed how the same strategy seems to be helping big polluters today to promote climate science skepticism. This strategy, interestingly for our discussion of epistemology, has to do with cultivating distrust in the scientific consensus. Concretely, in 1954 the Tobacco Industry Research Committee was set up as a corporate-sponsored organization aimed not at denying scientific research about smoking causing cancer but at contesting the idea of a unified scientific view. It did so by foregrounding the voices of a few fringe scientists who questioned the mounting evidence. In other words, their aim was to foster doubt about consensual scientific facts and create a false equivalence between scientists who linked tobacco use with lung cancer and those who did not. In the words of D'Anconda (2017, p. 42), "the objective was not academic victory but popular confusion" – and it worked for many years, until in 1998 the Tobacco Institute and the Council for Tobacco Research were closed as part of the master settlement between tobacco giants and the attorneys general of forty-six US states who raised legal charges against this practice.

The intellectual legacy of this initiative to sow doubt continues, and it remains potent within today's post-truth climate. A big part of this potency comes from the fact that doubt has a vital role to play in the construction of knowledge according to multiple epistemological positions. It is not only the foundation of skepticism but a core principle of positivist science, based on the Popperian theory of falsification or the idea that all knowledge is provisional and in need of further testing. Doubt is also a central value within constructionism and postmodern critique, interested first and foremost in empowering "marginal" voices and questioning hegemonic ones; after all, how else would we question taken-for-granted scientific knowledge and the invisible relations of power embedded within it? Its power is reduced only when we start asking what is the pragmatic consequence of specifically doubting the scientific consensus about tobacco use or, more recently, climate change? By focusing on what this practice achieves, and whom it benefits, we can start questioning doubt itself.

2.5.2 *The Pragmatist Position*

This focus on consequences is specific to pragmatism, an epistemological position that cuts across many of the dichotomies mapped in Figure 2.1. One important conclusion from that illustration was that epistemological positions cannot be reduced to a simple antinomy between realism/naturalism/positivism, on the one hand, and constructionism/relativism/

postmodernism, on the other. Not only is it the case that these "poles" are less unitary than usually thought (e.g., realism is not the same as naturalism, and constructionists are not all extreme relativists), but their specific suborientations might answer different epistemological questions or answer the same question differently. What sets pragmatism apart when it comes to both realism and constructionism is its nonfundamentalist approach to ontology and epistemology. Instead of coming up with preconceived assumptions about how the world is or trying to build knowledge based on "first principles" (e.g., all derived from reason or the senses), pragmatists start from the here and now of the problem at hand and are ready to work with whatever can solve or shed light on it. Instead of universal principles that guide exploration, we are left with practical action. Instead of abstractions, what is foregrounded is experience. This position has, thus, some interesting implications for epistemology and especially epistemological purism. Rather than attempting to always be consistent in terms of one's predetermined principles, blinded to what is going on by our commitments, we are welcome to draw on whatever we can – including any helpful epistemological resources – in order to deal with the issue at hand (in our example, misinformation and conspiracy theories). In many ways, pragmatism gives researchers "permission" to be less epistemologically consistent and, instead, utilize any methods that contribute to the issue at hand (see also Seale, 1999).

Pragmatism engages with all the four questions outlined earlier (the start of Section 2.4) and, at the same time, offers answers that show some variability across pragmatists. Charles Sanders Peirce's (1955) work, for instance, engaged with the issue of determinism by reacting against it and claiming, in particular, that instead of reinforcing deterministic laws science brings evidence against them. In the pragmatist tradition, his focus was on the actual practices of scientists rather than convenient post hoc accounts. As he noted, the more we refine our methodological tools, the more we notice differences and variations rather than uniformity in nature. William James (1912) complemented this view with his emphasis on pluralism, or the idea that we can never build knowledge that can account for everything in the world, and that there will always be room for new perspectives and new forms of understanding (Goodman, 2012). This is yet another challenge to deterministic accounts of reality that tend to describe it in absolute or universal terms. By focusing on human action and experience, pragmatists are well equipped to question the easy assumptions that reality exists "out there" or is created "inside" by the individual mind. Or that our knowledge of the world is either objective or subjective. In fact,

a fundamental tenet of pragmatism is the effort to overcome all sorts of dualisms, a theme especially evident in John Dewey's (1917) writing.

2.5.3 Beyond Realism and Relativism

One of the most problematic dualisms to transcend is between positivist and postmodern approaches to science, truth, and knowledge. This tension, exploited by different actors within the current social and political context, is generated by the difficulty in bringing together a realist and a perspectival account – in other words, the idea that reality "exists" and can be known through the "right" perspective and the notion that everything we know is a perspective, nothing else, and that perspectives are all equally valid. Finding a way out of this particular dualism would go a long way when it comes to the current post-truth debate, in which one side claims that their "truth" is as good as anyone else's while another insists that every issue can be solved by applying Aristotle's old correspondence theory – if knowledge does not correspond to what is the case, then it is false. Unfortunately, as the current crisis demonstrates, things are more complicated than this. Not every perspective is correct, that is certain, but neither can we easily dismiss the power of perspectives to "create" reality. Pragmatism makes a valuable contribution to this debate given its deep connections to realism and perspectivism and its emphasis on the consequences of developing specific perspectives in and on the world. In fact, this epistemological position has been described in the past as embracing "perspectival realism" (e.g., in relation to the work of George Herbert Mead; Martin, 2006), a view according to which perspectives are not solipsistic mental constructions but real action-based relations (Gillespie, 2004, 2005a). This makes them neither subjective nor objective but intersubjective and, as such, is a way of recognizing the contribution of external reality to the construction of the person, and vice versa. Moreover, there is a recognition of the fact that perspectives not only grow out of a shared world but they also adapt us to it. In other words, far from an "anything goes" approach, which perspectival and postmodernist accounts are accused of, a pragmatist standpoint invites us to consider what perspectives *do,* namely, what consequences they have for self and others. The truth value of a specific body of knowledge can be established not by considering the person, the knowledge, or external reality in isolation but by analyzing how they shape each other.

Pragmatism can help us avoid the pitfalls of both positivism and relativism and, in fact, gain from their strengths. Pragmatist researchers are

concerned with reality, first, as the background against which positions and perspectives are formed and transformed and, second, as the world in which those positions and perspectives exist. Pragmatism is also interested in the power of particular perspectives to change how we understand our reality. This process of transformation, especially its consequences, is fundamental. Pragmatist perspectives are part of nature, and they can change nature; changing perspectives are part of reality itself evolving. They involve a commitment to understanding the phenomena under study in a developmental and systemic manner, and the knowledge we derive about them as reflecting intersubjective perspectives forged at the person–world encounter.

To capture this dynamic reality, we need methodological pluralism, as no single method or body of data could account for differences in perspective and the study of human action. The rather monological focus of positivism on using the experimental method is certainly reductive, and so is the discursive nature of the method of postmodern deconstruction. The first assumes our ability to step outside our experience and develop "objective" perspectives on the world that come from no particular position within it (God's point of view). The second, on the contrary, denies the possibility of even approximating a "true" perspective and, instead, embraces a fragmented and multiple understanding of knowledge. This epistemological and methodological gap can be bridged only by acknowledging the fact that research itself is a form of human activity that contributes to constructing new perspectives on (and in) the world and that this process is both creative and emergent, and one that is constrained by material and social demands, including by the perspectives of others. What comes to be recognized as a "true" perspective depends on the interplay between all these factors – including the resistance of reality to our attempts to construct it according to our intention – and is best evaluated – epistemologically and ethically – in terms of the actions in the world it engenders.

2.6 The Consequences of Pragmatism

We started this chapter by examining the post-truth climate that has marked the social and political landscape of several nations, including the United States, the United Kingdom, Brazil, Myanmar, and the Philippines. This societal context is relevant for a discussion of epistemology for several reasons. First, epistemological attacks on the Aristotelian notion of truth, amounted primarily by constructionists, relativists, and postmodernists, are claimed to have laid some of the ground for the

current crisis (see Baggini, 2017; McIntyre, 2018). Second, the fact that belief in misinformation and conspiracy theories tends to correlate with anti-science sentiment (Prasad, 2022) has led to a backlash against these epistemological standpoints and an attempt to reinstate naïvely positivist notions of Truth. Third, and related to the points above, these tensions have direct consequences for methodology and research as a construction-ist account of conspiracy theories, for instance, will be different than a positivist one. The latter is much more common in the existing literature, at least in psychology, than the former. This begs the question of how we can consider, in both research and in society, the issue of truth and valid knowledge in more complex terms, moving away from the simplistic opposition between "anything goes" and "nobody can argue against facts."

What we advance in this chapter is the proposal that adopting a prag-matist epistemological standpoint might take us a long way, in science and public debates, toward a nuanced view of knowledge and truth. For pragmatists like James, Peirce, Dewey, and Mead, the value of knowledge is established in action on the world and coordinating our actions with those of others. By trying to build a bridge between realism and perspec-tivism and promoting antideterministic and pluralist views that allow for human agency, pragmatist thinkers help us address the post-truth debate in new ways. Instead of looking to legitimize specific perspectives (e.g., scientific, political, conspiracist) as universally valid, it invites us to reflect on their practical and ethical values in the way they are used in practice and in terms of their consequences. It can be assumed, in this regard, that perspectives associated with misinformation fail the pragmatist test by fail-ing to explain the patterns in the data, benefiting some groups but disad-vantaging many others, including creating a divided and polarized society that is to the detriment of everyone (Chambers, 2021). Also noteworthy, from a pragmatist standpoint, to research misinformation and conspira-cies, is to study the variety of perspectives associated with them and try to understand their origin, function, and relation to other perspectives. It is a common misconception, especially in public debates, to assume that understanding a perspective means either accepting it or agreeing with it – in fact, it means only to understand it in its proper context and across time, in a developmental manner.

These key markers of a pragmatist epistemology – contextualization, developmentalism, perspectival realism – guide us in writing the pres-ent book on methodology. Arguably, the most consequential implication of pragmatism for methodology is to avoid analytical reductionism and methodological fixedness. The first refers to an attempt to reduce complex

phenomena to simple processes, particularly psychological ones, cut away from their social, political, and material embedding. In the case of post-truth, this is reflected in studies that focus on cognitive or clinical variables without any effort to connect these back to the fields of action and interaction that support them. And this analytical separation becomes easier to operate when one's epistemology favors methodological fixedness, which is the assumption that a given question (e.g., about cognitive processing of information) can be meaningfully answered with the help of a given type of data (e.g., psychometric tests) and the use of a narrow range of methods (surveys, experiments, or interviews). Pragmatism breaks away from these common practices by welcoming plurality regarding theoretical perspectives, datasets, data collection tools, analytical methods, and human interests. The subsequent chapters will explore each of these in turn.