CHAPTER 1

Pragmatism

> A pragmatist … turns away from abstraction and insufficiency, from verbal solutions, from bad *a priori* reasons, from fixed principles, closed systems, and pretended absolutes and origins. He turns towards concreteness and adequacy, towards facts, towards action, and towards power. That means the empiricist temper regnant, and the rationalist temper sincerely given up. It means the open air and possibilities of nature, as against dogma, artificiality and the pretence of finality in truth.
>
> James (1907, p. 51)

An originating insight for pragmatism was Charles Sanders Peirce's (1878) argument that the truth of an idea is found in its consequences. Specifically, what we call "true" is knowledge that yields the expected outcome. This paradigmatic insight was developed in America by John Dewey (especially in psychology, education, and art; Dewey, 1922, 1934, 1958), William James (especially in psychology and philosophy; James, 1890, 1907), George Herbert Mead (especially in social psychology; Mead, 1913, 1925), and Jane Addams (especially in activism and social work; Addams, 1990, 2002). These heterogeneous scholars were united in believing that science, within the context of democracy, could improve society. Instead of searching for absolute truths, independent of humans, they wanted society to take responsibility for creating knowledge that would enrich humanity.

Pragmatism can be challenging to understand because it resists the languages of both realism and skepticism. It mixes a hard-headed focus on facts with social values, especially democracy. How can knowledge be underpinned by both truth (thought to be independent of humans) and values, such as democracy (clearly not independent of humans)? It achieves this by reconceptualizing the subject–object (subjectivity–objectivity, relativism–truth) dichotomy. This dichotomy is so fundamental to our thinking that, sometimes, pragmatism can seem contradictory. For

example, in the opening quotation James, on the one hand, looks away from final truths but, on the other hand, looks "towards facts." This is possible because pragmatism takes time very seriously. Facts are in the past, things that happened, that cannot be undone; knowledge leans into the future and will become a fact only after its consequences are realized. From a pragmatist standpoint, truths outside of time are an illusory "quest for certainty" (Dewey, 1929). The idea of a timeless truth fails to distinguish what has happened from what might happen, and it thus suppresses our responsibility for what will happen.

In this chapter, we introduce pragmatism. First, we situate pragmatism within a process paradigm that emphasizes temporality and change, and we contrast this with approaches that prioritize timeless things. We discuss both the criticisms of pragmatism (that it is relativistic, uncritical, and behaviorist) and the benefits of pragmatism (that it enables multimethod research, creates useful knowledge, and helps generate novel theories). Finally, we distill pragmatism into eight propositions. The eight subsequent chapters will develop the implications of each one of these propositions for methodology in the social sciences.

1.1 Paradigms: "Things" or "Processes"?

According to Thomas Kuhn (1962) all sciences are embedded in paradigms that are more or less implicit. These paradigms are sets of assumptions, articles of faith, root metaphors, and themata that are taken for granted (Holton, 1975). Paradigms demarcate discontinuities in knowledge. If ideas fit harmoniously together, they are part of the same paradigm. Moving from one paradigm to another is discontinuous and often abrupt. Such paradigm shifts, or scientific revolutions, are stimulated by the accumulation of anomalies. Anomalies are observations or logical contradictions that are difficult to explain within a given paradigm. All paradigms have anomalies, and the tendency is to overlook them and focus on the affordances and successes of the paradigm (Kuhn, 1962). However, anomalies are the seeds of progress.

Ivana Marková (1982) has used the Kuhnian concept of paradigm to characterize two fundamental paradigms in psychology and the broader social sciences. The first is a mechanistic paradigm within which the world comprises "things" that subsequently enter into interactions. The second is a process paradigm within which the world comprises interactions (or experiences) and only subsequently are these decomposed into "things." Marková calls these the Cartesian and Hegelian paradigms after their respective ancestors.

1.1.1 The Cartesian Paradigm

The French philosopher René Descartes (1641) laid the foundations for the mechanistic and deterministic paradigm. He argued that there are two separate ontological realms: *res extensa* and *res cogitans*. *Res extensa* pertains to all that is extended in three-dimensional space, while *res cogitans* refers to all the things that appear in the mind (e.g., thought, internal dialogue, and imagery) and rational thought (e.g., Pythagoras' theorem, mathematics). Unlike *res extensa*, *res cogitans* does not have any extension in three-dimensional space.

Descartes' (1641) dualistic ontology isolated the cognitive and spiritual element within *res cogitans*, thus enabling scientists to study *res extensa* in purely mechanical terms. This separation had the benefit of isolating the soul, and thus religion, and freeing scientists up to study the natural world unencumbered by religious doctrine. It laid the foundations for material determinism: the idea that everything that has happened and will happen in the material domain is merely the unfolding of a mechanical system. Pierre-Simon Laplace (1814, p. 4) described material determinism as follows:

> We ought then to regard the present state of the universe as the effect of its anterior state and as the cause of the one which is to follow. Given for one instant an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it – an intelligence sufficiently vast to submit these data to analysis – it would embrace in the same formula the movements of the greatest bodies of the universe and those of the lightest atom; for it, nothing would be uncertain and the future, as the past, would be present to its eyes.

Laplace's arresting idea was that the entire universe is like a mechanical clock – fully determined by its starting position. Thus, everything, from exploding stars to the sentences on this page, is the inevitable ticking of the mechanical universe set in motion at the start of time.

Descartes' sharp separation between *res extensa* and *res cogitans* led, on the one hand, to the rationalistic study of ideas without extension (mathematics, geometry, logic, etc.) and, on the other hand, to the empirical sciences of things with extension (physics, biology, chemistry, etc.). Although rationalism and empiricism are often opposed (because they disagree on whether truth comes from ideas or observations), they are both mechanistic ontologies: They start with things (empirical or logical), and all interactions are secondary.

For Descartes, Truth is timeless. True logical relations do not change with time. For example, the laws of geometry are unchanging. Equally, the

human mind, he argued, does not develop. The human soul, Descartes wrote, is always conscious in any circumstance – even in a mother's womb. Furthermore, logical relations between objects in the world, in so far as they are True, must be True for all time. Descartes' ideas carry forward Plato's allegory of the cave: that human experience is like the shimmering colorless shadow of an intricate three-dimensional object cast upon a cave wall by a flickering fire. Plato termed the posited Truth behind experience "natural kinds" – these are the objects that underly human experience. While experience is fallible, natural kinds are perfect and outside of time.

Much contemporary social research is within the Cartesian paradigm (Farr, 1997; Marková, 1982). This paradigm aims to identify, define, and measure "variables" (i.e., things). Only secondarily are these variables related to one another (e.g., correlations, experiments). The metaphor is Laplace's clockwork universe, with the variables being the cogs ticking onward through cause–effect relations. When change occurs, the Cartesian paradigm searches for causal cogs. The assumption is that the change needs explanation, but the variables do not – they are taken for granted.

One anomaly in the Cartesian paradigm is development. While there are many methodologies for assessing initial states and outcomes, there are fewer methodologies for assessing what happens in between (Valsiner, 2006). The relations between independent and dependent variables are described with probabilistic statistics, but what actually occurs within any given situation is not an abstract probability. Probabilistic statistics obscure variance, thus blending various underlying processes into a single abstract and possibly nonexistent curve of probability (Fisher et al., 2018; Hayes et al., 2019). Even asking questions about what happened in a given case between input and output becomes challenging. Studying a single case is seen to be foolish because, within this paradigm, a single case does not form a probability. Thus, the actuality of an event (i.e., the case of what actually happened – a fact in pragmatist terms) is secondary to an abstraction that never occurred (i.e., the statistical model). Indeed, cases that do not fit the model (i.e., outliers) are deviations to be removed. This subordination of the actual to the abstract model is deeply antipragmatist; pragmatism puts events first and treats theories, and knowledge more generally, as fallible abstractions.

A second anomaly of the Cartesian paradigm arises in the domain of psychology. Psychology is the science of mind and behavior, with the "and" revealing the Cartesian split (Farr, 1987). On the one hand, psychology operates with an ontology of *res extensa*, for example, when studying the

neuroscience of the brain or the predictability of human behavior. On the other hand, it operates with an ontology of *res cogitans*, for example, when studying the phenomenology of human experience or the psychological dynamics of self-reflection. This oversharp separation between the mind and the world led to a psychology of mind disconnected from the body (Damasio, 2006) and from other minds (Gillespie, 2006a). The mind was marooned, cut adrift from the material and social world.

Although Descartes is too often oversimplified and blamed for the ills of contemporary thinking (Baker & Morris, 1996), his ideas did lay the groundwork for a paradigm that separates the mind from the body and foregrounds things over processes. The peculiarity of this Cartesian paradigm becomes more apparent when contrasted with the alternative, a paradigm that foregrounds processes over things.

1.1.2 The Hegelian Paradigm

The Hegelian paradigm gets its name from the German philosopher Georg Wilhelm Friedrich Hegel (1807), an early and celebrated proponent of processes. Specifically, Hegel theorized "things" as being secondary to processes, as arising within "the life of the whole":

> The bud disappears in the bursting-forth of the blossom, and one might say that the former is refuted by the latter; similarly, when the fruit appears, the blossom is shown up in its turn as a false manifestation of the plant, and the fruit now emerges as the truth of it instead. These forms are not just distinguished from one another, they also supplant one another as mutually incompatible. Yet at the same time their fluid nature makes them moments of an organic unity in which they not only do not conflict, but in which each is as necessary as the other; and this mutual necessity alone constitutes the life of the whole. (Hegel, 1807, p. 2)

Is the oak tree superior to the acorn? Which comes first? Which is right? According to Hegel, these questions do not make sense because both are phases of the same process. However, although they are parts of the same process, the acorn and the oak tree are not equivalent. There is genuine nontautological growth and transformation. Hegel wrote, somewhat flippantly, that mathematics was boring because it was all tautology; every discovery was given in advance in the axiomatic assumptions of mathematics. Equally, a mechanical clockwork universe, like mathematics, does not grow or develop; it merely rearranges. In contrast, Hegel was interested in qualitative transformation and the emergence of nontautological novelty.

Hegel's philosophy was notoriously abstract (and, in that sense, deeply unpragmatist; James, 1882). But he needs to be understood in his historical context as trying to describe systems evolving before Darwin, systems theory, or ecological thinking. Dewey (1910b) saw in Darwin a concrete instantiation of Hegel's process philosophy, and by combining Hegel and Darwin, he arrived at a naturalistic conception of the human mind and society undergoing continual change. That is to say, the mind and society are not outside of nature but part of it – responding, adapting, and acting within the ecology of nature. In contrast to the mechanistic stimulus–response psychology of his time, Dewey (1896) argued that perception, cognition, and action form a dynamic system of adjustment. He rejected the idea that the mind is a subjective domain observing the objective domain. He replaced this Cartesian idea with a pragmatist conception of the mind as the means through which we reconstruct our relation to the world to enable action to proceed.

Every philosophy has to start with something. Plato began with a timeless Truth "behind" human experience. Descartes began with the unquestionable Truths of rationality and geometry. Laplace began with the idea of a clockwork universe in motion. In contrast, pragmatism begins with human activity – everyday actions and experiences that comprise the world as we know it. Within ostensibly mundane daily activities, humans are in a dynamic processual relation to the world. Within daily activities, knowledge is successfully created and used, and the debate between timeless Truths and solipsistic skepticism dissolves (James, 1912). While Plato and Descartes chose to build their systems of knowledge on something outside human experience, pragmatism chooses to build knowledge from within the experience of mundane human interaction. Human experience arises when we interact with the world or other people.

The idea of taking interactions (or processes) as foundational, as the basic unit of analysis, is not unique to pragmatism. It is evident in a range of domains, including studies of language, evolutionary and ecological theory, and complex systems theory.

In terms of language, Bakhtin's (1981) contributions are clearly within a process philosophy. He conceptualized language and texts as living, dynamic, and contextual. A paradigmatic orientation is especially evident in Bakhtin's (1986) criticism of Saussure. Saussure (1916) sought the structure of language (*langue*) "behind" the concrete manifestations of talk (*parole*). For Saussure, the aim was to identify the abstract rules that could explain language use in everyday life. More recently, Chomsky (1995) has sought to identify a universal grammar underlying all human languages.

In contrast, Bakhtin, operating within a process paradigm, argued that *langue* was an abstraction, and instead, the bedrock reality of language was *parole* – how language is used in daily life and how it varies between contexts (Linell, 2009). Everyday language use, Bakhtin argued, is not a pale reflection of a more abstract Truth; rather, it is language in process – grounded in the past, adapting to new contexts, and becoming the language of tomorrow.

In terms of evolutionary and ecological theory, process philosophy is pervasive, if often implicit. This point was made in philosophy by Dewey (1910b) and was developed in psychology by Werner (1957), among others. Where Hegel had the idea of things evolving and changing, Darwin's theory of evolution by natural selection made the idea of evolution concrete; it showed how species, and even humans, were within a process of change. More recently, Deacon (2011) contrasts engineering logic (a Cartesian paradigm that builds things up from parts) with organic (biological) logic (a Hegelian paradigm in which the parts are differentiated within a functional whole). Humans, Deacon argues, are not created by assembling hearts, lungs, and limbs together – like Frankenstein's creation. Human life begins with cell differentiation and the progressive specialization of cells, which functionally differentiate within the whole of the emerging organism. The "parts" of an organism, like the parts of an ecosystem, become what they are through their functional role within the larger system.

Finally, complexity theory studies complex, especially dynamic, systems (Byrne & Callaghan, 2013). It is closely related to evolutionary and ecological thinking, but it takes more inspiration from mathematics (Kauffman, 1996). It is often applied beyond biology, for example, to understand cellular automata, turbulence, and weather systems. Increasingly, it is used to understand human psychological (Guastello et al., 2008) and societal phenomena (Page, 2015). The basic idea is that numerous elements interacting produce higher-level phenomena that are more than the sum of the elements (e.g., rivers are more than water molecules, the mind is more than the cortex, and society is more than individuals). Complex systems have emergent phenomena, such as attractors (e.g., a whirlpool), and qualitative phase shifts (e.g., water becoming ice). Complexity theory is an example of a process paradigm because these higher-level phenomena emerge from the interactions of component elements.

Pragmatism has an affinity to any tradition that emphasizes "processes" over "things" and takes change and development seriously – whether it is the development of language systems, biological systems, or any other

complex systems. The elements can be diverse (words, people, species), but they are all situated within larger systems (language, societies, ecosystems). The key is that the elements are not timeless but developing; not definable in isolation but definable in terms of their functional role within the system; and not hidden "behind" what is going on but are what is going on.

1.2 Pragmatism: Knowledge within Human Activity

Early American pragmatism was a response to relativism (or skepticism), which itself was a response to naïve realism. From a realist standpoint, Truth is independent of humans: timeless, hidden "behind" the blooming buzzing confusion of experience awaiting "discovery." The skeptical reaction to this is that humans "construct" knowledge; it is created through social and discursive processes and ceases to exist when the supporting social processes wane. History, the skeptics observe, is littered with the vestiges of so-called timeless truths, each bound to a civilization, culture, or research paradigm.

Pragmatism is often misunderstood because it transcends this debate between realism (there are infallible timeless Truths) and skepticism (all knowledge is uncertain). It is unusual because it subscribes to both fallibilism and antiskepticism (Putnam, 1995). It agrees with the skeptics: There is no guarantee that any theory is timeless and will not need revision. But it also agrees with the realists: Just because knowledge can be doubted, it does not mean that all knowledge should be doubted equally.

Pragmatism proposes that knowledge is neither purely a function of the world (realism) nor of humans (skepticism). Instead, knowledge is an *interaction* between humans and the world. The term "pragmatism" comes from the Greek *pragma* meaning "deed" or "action." The core pragmatist idea is that the opposition between subject and object, or representation and reality, should be replaced with activity and experience (which binds the subject and object together). Pragmatism is a process paradigm because it starts with the dynamics of experience and activity.

To understand how pragmatism can be both fallibilist and antiskeptical, it is necessary to return to the subject–object dualism. Descartes institutionalized this dualism, which now permeates the social sciences and modern thinking (Latour, 1993). However, it is a loaded and oversimplistic opposition that leads us to pigeonhole theories as belonging to either the subject or the object side of the dualism. It creates a host of anomalies, especially for psychology, which aims to be an objective science of subjectivity.

1.2.1 Beyond Subject and Object: The Truth Is in the Future

At the heart of pragmatism is a reconceptualization of Descartes' infamous distinction between subject (*res cogitans*) and object (*res extensa*). This distinction is central to a correspondence theory of Truth: Does the image in the mind of the subject mirror the object out in the world? Such a "mirror theory" of truth pervades naïve realism (Rorty, 1981). Pragmatism reconceptualizes the distinction between subject and object and, in so doing, reconceptualizes the nature of truth.

Although the Cartesian separation between subject and object looks clear-cut, in practice it is messy. Dewey (1905, p. 230) identifies this anomaly using the example of awakening to a scary sound:

> I start and am flustered by a noise heard. Empirically, that noise is fearsome; it really is, not merely phenomenally or subjectively so. That is *what* it is experienced as being. But, when I experience the noise as a *known* thing, I find it to be innocent of harm. It is the tapping of a shade against the window, owing to movements of the wind. The experience has changed; that is, the thing experienced has changed not that an unreality has given place to a reality, nor that some transcendental (unexperienced) Reality has changed, not that truth has changed, but just and only the concrete reality experienced has changed.

This seemingly innocuous example poses a problem. Is the scary perception subjective, while the chaffing shade is objective? The problem is that the frightening perception did not feel subjective in the moment. And what if there really was a burglar at the window? Then, would the chaffing shade now become subjective? Dewey's point is that assigning experiences to subjective or objective domains is unhelpful and muddled because the raw experience, in the moment, is equally real in all cases.

> [There] is no reason for assuming the content of one [experience] to be exclusively 'real' and that of others to be 'phenomenal'[.] [W]e have a contrast, not between a Reality, and various approximations to, or phenomenal representations of Reality, but between different reals of experience. (Dewey, 1905, p. 227)

Dewey argues that the first experience (the scary noise) is no less real than the second (the chaffing shade); both empirical experiences are equally real experiences. What differentiates them is in the future (whether there was anything more than the chaffing shade). As experiences accumulate, one experience may supersede the other at the level of understanding, as a theory of the world, setting an expectation for how to act next – which in turn may be superseded (see Chapter 2).

We often use the term "subjective" to talk about an action that has become uncertain, where expectation has been surprised. Within this disruption, the path of action is no longer obvious, decisions have to be made, and options have to be weighted against one another (e.g., to go back to sleep or to investigate the noise). In such scenarios, what seems objective at time one becomes subjective at time two and vice versa. Thus objectivity and subjectivity cannot exist side by side in different ontological realms; instead, they are sequentially related as different phases of human activity, with the former being a taken-for-granted activity and the latter being an activity that has become problematic. The critical point is that both subject and object become differentiated within the activity.

Another anomaly of the subject–object dualism can arise between people (Mead, 1932). Consider a neuroscientist examining the brain of a patient using an advanced scanner. The screen shows the topography of the brain, where the blood flows, and thus the loci of cognitive activity. It is seductive to conceptualize this as the "real" or "objective" basis of the patient's experience; or, put another way, what is real is the blood flow, while the patient's experience is merely subjective. But the anomaly arises when we take a step back: Is the neuroscientist's assessment of the scan also merely subjective? Is the blood flow merely a perception in the neuroscientist's brain? If so, this could only be detected by a second neuroscientist examining a brain scan of the first neuroscientist. But, again, this examination would be a mere subjective experience, and so on, *ad infinitum*. The point is that the patient's experience is as real as the neuroscientist's experience; the only difference is that they are in two different bodies coupled with a belief system that privileges one experience over the other.

Pragmatism reconceptualizes the subject–object dualism by taking a naturalistic stance. Building on the ideas of Darwin, pragmatism argues that all human activity (including mental activity) is part of nature (Dewey, 1922; Mead, 1932). Thinking and collective inquiry (e.g., science) are not outside of nature, observing it, but part of the interactions that comprise nature. The term "naturalism" denotes the fact that experience (including empirical observation) does not "give access to" nature but rather is part of nature (see Chapter 2). Thus, "experience" is not a subjective quality; *it is a real relation to the world that is part of the world*. This overcomes the problematic idea that the subjective is outside the objective, observing it.

Pragmatism's primary unit of analysis is interaction, variously called "acts" (Dewey, 1896), "experience" (James, 1912), "social acts" (Mead, 1912), "perspectives" (Mead, 1926), and "transactions" (Dewey & Bentley, 1946). These terms overcome the subject–object dualism because both