James W. Davis’s *Terms of Inquiry: On the Theory and Practice of Political Science* (2005) presents a critique of the application of the scientific method to the social sciences. Davis argues that the use of the scientific method obfuscates usable knowledge that might otherwise be gathered by applying methodology more appropriate to the study of social science. Davis, a classically-trained political scientist, became disturbed by the dissociation between disciplinary political science and the practice of politics (p. 2). Additionally, despite the empirical orientation of his training, Davis became dissatisfied with the lack of apparent success in predictive abilities of social science theories, despite these disciplines’ adherence to scientific methodology. These issues propelled the development of this work. His objections do not focus upon the academicians who employ these methods (p. 3); rather, his concerns center upon the appropriateness of the scientific method itself to study social interactions. His assessment rests upon his observations concerning academic political science and international relations (p. ix), though he argues that his conclusions are applicable across social science disciplines (p. 3). Davis examines the assumptions upon which the scientific method rests and illustrates through examples drawn from both the social and natural sciences foundational problems with respect to social science applicability. Overall, Davis succeeds in raising important questions concerning the validity of the use of the scientific method in the social sciences, and his meticulous attention to the problematic pieces of that methodology go far towards this work’s success. However, the book could be more unified to avoid redundancy of ideas and to reduce superfluous examples in some parts, while more fully developing several of the more provocative ideas that inexplicably receive short shrift, and eliminating tangential digressions that add little to his thesis. Additionally, Davis’s general case for neo-interpretivist methodology might collapse under the weight of serious scrutiny.

Davis presents his work in six chapters, most of which substantially develop the underpinnings of his argument, though chapter three illustrates Davis’s premise with respect to political science and chapter six extends his work to identify methodology that he argues is more appropriate to discerning useful knowledge from the practice of social science. Chapter six’s aims are pragmatic, because he
wants for political science to produce useful knowledge, rather than remaining bogged in theoretical irrelevance (p. 4).

Davis acknowledges that his work most closely aligns with that of traditionalists, who analyze history without aspiring to prediction, but he also recognizes other perspectives where objections to the scientific method have arisen. He wishes to find a “middle way” between interpretivism and postmodernism (p. 3), though he aligns himself at least loosely with the interpretivist position. He relies upon those orientations when beneficial to his argument, though he is careful to distinguish points of departure. For instance, to illustrate culture and language constraints upon theory, Davis draws upon the example of “thick descriptions” used by interpretivist anthropologists (p. 49). He also approvingly cites the hypothetical postmodernist scientist, who quits her job upon realizing that there can be no standard for judging truth (p. 93). However, he explicitly aims to discover a less radical approach than the postmodernist view that “anything goes” (p. 3). He also recognizes and wants to avoid the interpretivist's inescapable problem that “evaluation[s] of novel situations [involve] […] preexisting concepts” (p. 65). He cites with approval both Marxist and postmodernist critical theorists who argue that “the search for timeless laws stifles social sciences” (p. 106).

Davis's conclusion that the pursuit of general laws for social phenomenon may be a bootless errand (p. 106) is well-supported overall. His most convincing and well-illustrated arguments concern the lack of precision in language, the fuzzy borders of concepts, the lack of one-to-one correspondence with reality, and the inadequacy of a two-value system of logic. His argument’s weakest points include an over-reliance upon examples drawn from natural science as evidence against the appropriateness of using the scientific method in social sciences, examples drawn from the social sciences that might be said to be chosen too carefully, and the rather cursory attention given to several interesting analogies and extensions of his argument.

After introducing his work in the first chapter, the second chapter addresses conceptualization challenges and the fuzzy borders of concepts. Conceptualization represents “the indispensable first step towards the generation of knowledge […] and is central to the scientific enterprise” (p. 11). Yet, Davis cites several examples to successfully support his claim “that there is no one-to-one correspondence between the physical world and the concepts […] use[d] to represent it” (p. 11), thereby casting doubt upon the reliance of this “indispensable first step.” These examples also thoroughly support Davis’s assertion that language is culture-bound, and thereby our perception of the world is culture-specific. Additionally, for Davis, language does not mirror the world, but rather, it creates the world. Language does not correspond to some objective truth “out there” (p. 13). Because language is culture-bound, our reality is culture bound, and there is no possible objective observation of the world.
These examples include studies concerning cultural perception of color. Though neurobiological processes allow for human beings to apprehend eleven core colors, cognitive processes are culturally determined and bound by language. This is not a matter of simply having different words for different colors. Researchers have shown that cultural perceptions of core colors range from the perception of two colors to the perception of all eleven, where the number of core colors capable of being perceived is consistent among members of the same culture (pp. 14 – 16). Similarly, perception of spatial relationships (e.g., whether something is “in” or “on” something) are determined by culture-bound language, as are auditory perceptions (e.g., /r/ and /l/ for Japanese speakers) (pp. 17 – 29). In short, adults from different cultures see and hear very different worlds based upon their language, because language shapes cognition (p. 30). Davis’s examples well support his assertion that concepts and conceptualization are simply “linguistic expressions of mental constructs” (p. 61), culture-bound and reflective of the observer, but not indicative of an objective truth with a capital “T”.

Davis also illustrates the idea of fuzzy concepts to challenge the attainment of “precision [as] […] a necessary precondition for empirical testing” (p. 32), an agenda which many social scientists have pushed. Relying upon Wittgenstein’s concept of “game” as “family resemblances” rather than ideas with fixed boundaries (p. 33), Davis extends this work to show that most concepts have at their center an archetypal ideal, and all examples are conceived as in comparison to the archetype to reach the idea of graded memberships. Davis discusses democratic peace theory (pp. 77 – 78), as well as other examples, to illustrate the problem of defining social phenomenon incapable of precise definitions (p. 37), and that language cues dramatically affect perception. His use of visual renditions of flocks of birds versus herds of antelope can convince even skeptical readers of this point (p. 44).

He also argues that observations are theory-dependent (p. 45), and theories are language-dependent, though empiricists miss or reject the importance of that truth (p. 43), so concepts change over time (p. 46). He argues that concepts rely upon “evolving symbolic structures” that bear “no direct, one-to-one correspondence to mind-external phenomena” (p. 13). He further notes the evolution of social concepts by tracking their language, despite the constancy of the empirical referents (p. 48). For instance, the Victorian concept of “cruelty to children” moved to that of “neglected children,” as did the notion of punishment due for the former, while social work was required to rectify the latter (p. 47). Thereafter, “child abuse” emerged (p. 48). As Davis mentions (p. 48) Michael Foucault tracked similar changes in language-bound concepts having the same referent with respect to the perception of “madness” to “mental illness,” where the former was a relatively normal occurrence and the latter a bona fide medicalizable infirmity. As Davis notes, when “we accept data, we are accepting the limits of the theory and language behind it” (p. 58).
Davis cites Thomas Kuhn favorably when he notes that paradigm shifts resemble religious conversions (p. 59). Both science and religion share a belief that “there is an order to the universe that is accessible and comprehensible” (p. 59 – 60). Fervor for one may be indistinguishable from the other. This section could be more fully developed, because it has the feeling of being tacked on at the last minute. If, for instance, “most basic concepts of science are secularized versions of preexisting religious terms,” (p. 59) then he should give the readers some examples. Since so much of chapter two drips with superfluous examples of only slightly nuanced differences to illustrate the ideas of fuzzy borders (clay pots, democratic peace theory, games, kinship descriptions, birds, tallness, etc.), the lack of exemplars to illustrate this provocative point is jarring. Indeed, a scant two pages is devoted to it.

A primary weakness of Davis’s work is that he relies upon research conducted using the scientific method to support his proposition that the scientific method is inapplicable to the social sciences (e.g., the color, spatial and auditory studies p. 13 – 25). While there may be no way around this irony, Davis should have at least acknowledged that he was relying upon results produced from the very method that he criticizes. In his defense, however, some – though not all – of these studies emerge from the physical sciences rather than social sciences. However, that defense may raise an additional objection. To wit, his reliance upon non-social science research to support his argument with respect to the social sciences requires something of a leap of faith. However, Davis adequately supports this seeming anomaly by focusing on the underlying assumptions and elements of the scientific method, which are the same regardless of the subject matter to which it is put.

Chapter three’s exploration of the development of his argument to political science reaches well-trodden conclusions. This section could be omitted or integrated with chapter two without loss. For example, he revisits the definitional problem of democracy (p. 67), but uses it only to reiterate his point about fuzzy borders of concepts (pp. 77 – 78). This section’s conclusions do little besides expressly agree with preceding thinkers. For example, he notes that “truth is not a property of “the world” but rather of statements about the world” (p. 81). This is reminiscent of Richard Rudner’s work. Similarly, his averment that scientific concepts are understandable “between members of the scientific community” sounds a lot like Peter Winch (p. 84). Indeed, a real question arises here as to whether he adds anything new to Winch’s work in this arena. Last, he expressly agrees with Kuhn’s assertion that scientific progress can occur through conceptual revolution (p. 85). Readers who are familiar with these thinkers already can skip chapter three, though Davis’s footnotes contain interesting comparisons that might better exist in his primary text. For example, he discusses similarities between case law and classifications of representations of experiences or observations (p. 81, footnote 99).
Chapter four ostensibly exists to argue that a two-value logic – that is, something must be either true or false – and the scientific method’s goal of falsification, is woefully inadequate to the study of social interactions, which often demand results of neither true nor false, but rather “maybe” or “undecided,” particularly when working at the fuzzy border of concepts, which is where most of scientific work is done (p. 129). One wonders whether this is actually a problem in science or even social science, Davis’s argument notwithstanding. It might better be thought of as a problem with empiricist positions in philosophy or social science only. Nevertheless, given science’s aim “to make sense of the real world” (p. 94), this two prong approach does not give us enough possibility for expansion of thought, which is required when studying human interactions. Given the wide acceptance in the scientific community of logical positivism (p. 102), Davis recounts in great detail its development – from the problem of inductive thought, to Karl Popper’s solution, to deductive logic. However, Davis’s shotgun approach to examples in this chapter should be more focused. His examples vacillate between those from the natural and social sciences (e.g., the source of the sun’s power to balance of power theory), though, in the end, they each work well enough to support the insufficiency of two-pronged test. “Whereas deductive logic requires the exclusion of the undecidable case, and the modus tollens presupposes the ability to establish the veracity of a purely existential statement, the logic of scientific practice is three values, with many statements falling into the category of “undecided”” (p. 117). Overall the point could be made more succinctly.

Chapter five builds upon the inadequacy of the two-value logic model and adds to it the effects of social norms. Research flowing from such dynamics requires a three-value logic (p. 132), a point that he illustrates well through examples such as social norms with respect to sexual behavior and rape (pp. 134 – 135). This chapter gives shape to the methodological hole at issue throughout this work. Namely, if concepts are incapable of objective, precise definition, generalizability is unattainable through induction, and two-value deductive logic is inappropriate, how then can social scientists generate knowledge (p. 153)?

His answers, in chapter six, come in several pragmatic recommendations. For example, he urges the abandonment of grand theorizing, with greater attention given to unique features of cases (or members of the population) rather than on the sameness of members of populations (p. 165), and attention to unique historical attributes that may interpret direction or present state (p. 165). This last point is reminiscent of interpretivism, in that he urges a deep understanding (like verstehen) of the individual case, a position with which Rudner would no doubt take issue. These focuses would allow the social scientist to engage in process tracing, which is a useful method for the study of norm-based behavior (p. 178). Additionally, researchers should not dismiss typological approaches, which allow for diversity to emerge that can lead to greater understanding (p. 183). Likewise, case studies are an important method for social scientists (p. 175). All of these methodologies allow researchers to recognize mechanisms that produce social
outcomes, employ diagnostic procedures, and identify critical junctions for intervention (p. 186).

Davis's aim for social scientists is the development of middle range theories capable of scenario and contingency planning. His model is that of medical science (p. 187), because it is capable of developing explanations that are not just opinion (p. 8). Davis should have discussed this model more thoroughly as he envisions it relating to the practice of social science, especially as he urges the “rediscover[y of] the centrality of philosophy and religion to the practice of science” (p. 187). Indeed, this last point illustrates the primary frustration with this work. Davis develops the underlying argument well, but upon reaching the apex, is content to briefly mention it and move on without fully developing just how such a thing would work.

References