

Bengson, John, Terrence Cuneo, and Russ Shafer-Landau, *Philosophical Methodology: From Data to Theory*, Oxford: Oxford University Press, 2022, pp x + 208, US\$105.00 (hardback), US\$22.99 (paperback).

Ambitious intellectual endeavors often include methodological preliminaries. Such preliminaries give their authors the opportunity to clarify aims, set terms of evaluation, orient readers for the journey ahead. We allow them some of the latitude accorded personal preference. Monographs on the methodology of a discipline, however, are a different matter. We expect them to weigh in on current controversies and read them with implications for our own activities in mind.

Bengson, Cuneo, and Shafer-Landau's *Philosophical Methodology: From Data to Theory* originated as part of a larger project in metaethics, but now appears as a book on "philosophical inquiry in general," with frequent references to its "ultimate proper goal." The book's breezy style and acute naming of parts make it a welcome addition to the literature. Quality work can be organized along the lines it suggests. While readily acknowledging these merits, I have some doubts about the book's aspirations to give a general account of philosophical inquiry and to illuminate the way toward philosophical progress.

Skipping many valuable nuances, here is a basic outline. Chapter 1 lays the foundation with accounts of the structure and goals of theoretical inquiry, which is what philosophers do when they answer philosophical questions by means of a theory. The goal is theoretical understanding. This consists of fully grasping a theory with a variety of features such as being reasoned, accurate, illuminating, and coherent. Pursuit of theoretical understanding divides into two stages: gather data, develop a theory that handles the data. These stages form the central focus of the book, where the authors both apply and defend their methodological proposals. After criticizing alternative theories of philosophical data for not adequately handling some data about data (Chapter 2), they defend an epistemic theory according to which data in a domain are considerations suitably independent of theories about that domain and with respect to which inquirers are in good epistemic standing (Chapter 3). The next two chapters follow a similar pattern, with the aim of identifying a "sound method." Methods provide criteria for transitioning from data to theory, and a method is sound if satisfying its criteria results in theoretical understanding. Data about sound methods are gathered, then recruited in criticisms of familiar methodological paradigms, e.g., conceptual analysis and reflective equilibrium (Chapter 4). Chapter 5 elaborates the preferred "Tri-Level Method." Level One instructs theorists how to handle data about their target domain: produce theses on which the data are likely to be true (accommodation) and from which explanations of the data can be formed (explanation). Level Two instructs theorists to support claims made while theorizing: ensure that they are in good epistemic standing (substantiation) and cohere among themselves and with other well-supported views about the world (integration). Level Three instructs theorists how to break ties in case satisfying the accommodation, explanation, substantiation, and integration criteria fails to single out a unique theory: pick the one that ranks highest with respect to theoretical virtues, such as simplicity and beauty. The book closes with a discussion of philosophical progress (Chapter 6), in which the Tri-Level Method is put forward as showing how to make and evaluate progress, one result being that philosophers haven't been doing as poorly as some pessimists imagine.

The book's brevity leaves little room for close engagement with many of the topics it touches on, and cognoscenti will easily spot weak points. There is surely more to be said in favor of the knowledge norm of inquiry, the factive view of data, and the method of reflective equilibrium. Is conceptual analysis properly treated as a method for transitioning from data to theory or as a way of gathering data? It is not entirely clear why theoretical virtues that do not conduce to truth should still be used to break ties. 9 out of 15 claims said to illustrate truths agreed on by philosophers of perception struck me as tendentious.

Perhaps such quibbles can be dismissed for failing to rise to the appropriate level of grand strategy. Concerns about the division of philosophical inquiry into stages with the first—data collection—providing input to the second—theory construction—are more pressing.

The stage picture enters early, in the chapter on inquiry, and is elaborated in the chapters on data. One supposed datum about data is that they are pre-theoretical, which is glossed as follows: "data regarding a domain D do not belong to any 'well-formed' theory of D. That is, they are not members of a set of claims regarding D that satisfy a sound method's criteria at the second stage of inquiry into D" (43). This leaves open three possibilities rightly noted and insightfully discussed: collecting data about a domain depends on theories about other domains; the process of data collection includes application of techniques; and data can be contested in various ways. It is not so clear, however, that dividing inquiry into two stages is compatible with all the ways theorizing about a domain might enable collecting data about that very domain.

Here are some examples. In the domain of astrophysics, astrophysical theories are used to design and interpret instruments for collecting data that astrophysical theories must handle. In the domain of evolutionary biology, familiarity with theories of biological evolution enables grasping concepts such as common ancestor and homologous structure which are used to formulate some of the data that evolutionary theories are expected to handle. In the domain of computability theory, theories of computation are used to prove theorems about the existence of uncomputable functions and the equivalence of different definitions of computation, which theorems are treated as data that theories of computation should handle. In the philosophy of mind, theories of content highlight distinctions between *de dicto*, *de re*, and *de se* thoughts and their ascriptions thereby enabling sharper judgments about cases which then represent data to be handled by theories of content. These examples illustrate a variety of ways the process of collecting data in a domain might causally, conceptually, hermeneutically, psychologically, and epistemically depend on theorizing about that same domain.

Maybe a fuller theory of the pre-theoretical will save the claim that data are pre-theoretical – while also showing how that claim itself remains pre-theoretical. Another option is to distinguish structure in the process of inquiry from some other structures, for example structure in the presentation of inquiry and structure in the reasons generated by inquiry. If the process of inquiry has ordered stages, then those stages should be doable in that order, even if in practice events tend to unfold somewhat differently. The examples in the previous paragraph suggest that some data cannot be collected prior to theorizing. This is compatible with presenting data before presenting theory. It is also compatible with data rationally supporting theory rather than theory rationally supporting data, even if some of the epistemic capacities exercised in gathering the data depend on grasping the theory. Similarly, following a route might confirm a map even if the ability to follow that route depends on possessing the map.

Much of value in *Philosophical Methodology: from Data to Theory* is separable from the claim that data are pre-theoretical. The two parts of the epistemic theory of data can be separated: data in a domain might consist of considerations with respect to which inquirers are in good epistemic standing, but which need not be independent of theories about that domain. This revised theory of data would serve just as well to frame the nice discussions of data collection and contestation. Further, nothing essential to the Tri-Level Method seems to hinge on data being pre-theoretical. The authors' distinguishing and elaborating the accommodation, explanation, substantiation, and integration criteria for evaluating theories, as well as their ordering of those criteria into a hierarchy, all strike me as plausible and helpful contributions to methodology.

It is less clear that the Tri-Level Method should be given a dominant role in thinking about philosophical progress. Revealing data might have its own value that is independent of whatever contribution the achievement makes to a more ultimate goal of theory construction. On some conceptions of philosophy, rendering something a datum can be more valuable, more worth pursuing, than deriving it from a theory. In some cases, theorizing might be a means toward a more ultimate goal of gathering data. If so, then this is a datum worth pondering and perhaps handling.

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