Analytic Philosophy Vol. 0 No. 0 February 2019 pp. 1–27

METHOD IN THE SERVICE OF PROGRESS

JOHN BENGSON
University of Wisconsin-Madison

TERENCE CUNEO
University of Vermont

RUSS SHAFER-LANDAU
University of Wisconsin-Madison

1. The Problem of Philosophical Progress

There is a powerful three-step argument that philosophy has made no progress. The first step maintains that a field makes genuine progress to the extent that, over time, it provides true answers to its central questions. The second step observes that the central questions of philosophy are among life's "big questions"—concerning, *inter alia*, free will, personal identity, skepticism, universals, the mind–body relation, God, and morality. Step three delivers the bad news: we lack the answers to *any* of these questions.

While there are a variety of responses to this argument, ours begins (in §1) by challenging its first step: true answers, even ones that yield collective convergence on the truth, do not capture what we ultimately want from our best philosophical views or theories (we will use these terms interchangeably). What we need are not simply widely accepted lists of individual truths, even those that are justifiedly believed or known, but theories poised to furnish a broad and systematic *theoretical understanding* (or simply 'understanding') with respect to the questions they address. At the same time, we acknowledge that shifting to understanding simply moves the bump in the rug: to promote understanding as a proper goal of philosophical inquiry does not suffice to establish philosophical progress, or even its possibility, for it provides no assurance that philosophers' efforts, and in particular the *methods* they employ, are on track to realize this goal.[1]

In a variety of philosophical subfields, including metaethics (our primary case study), there have at various points been hints of recognition that lack of progress is due at least in part to the failure to develop and

[1] Throughout we focus on epistemically significant progress in philosophy. We discuss other sorts of progress at the close of §2.

Analytic Philosophy Vol. 0 No. 0

implement an adequate methodology.[2] The idea is not that philosophers have failed to articulate, or properly adhere to, their methodological commitments. Nor is the idea that there is uncertainty or unclarity regarding the data that an adequate view should countenance. Rather, the deep problem is that there may be no method whose proper execution is likely to further understanding, hence progress.

These remarks are intended to highlight the basic contours of the problem, an adequate solution to which must address four questions.[3] One is *existential*: has philosophy actually made progress with respect to its central questions? A second is *comparative*: is whatever progress it has made comparable to progress achieved by other fields of theoretical inquiry? A third is *practical*: is there a method with the resources to guide the construction of a philosophical view that furthers progress? And the fourth is *theoretical*: is there a method able to deliver a principled evaluation of the extent to which a philosophical view is likely to attain this end?[4]

Our project in this paper is not to pose comprehensive answers to these questions (a massive undertaking). But we do intend to address all four. Because our answers to the existential and comparative questions build on our answers to the practical and theoretical questions, we orient our discussion around methodology.

We will criticize several prominent philosophical methods and then undertake to design a methodological framework applicable when engaging not only the central questions of metaethics (again, our primary focus here), but those of all areas of philosophy. We call it the *Trilevel Method*. At its core is a set of criteria, at three levels, whose satisfaction by a philosophical view implies that it is well-positioned to improve and deepen our understanding of its subject matter. To be clear, there is no radical reinvention of philosophical methodology on offer here. Our aim is rather to assemble an orderly and systematic framework for making progress, a framework whose main elements are familiar from

[2] See, e.g., §1 of Hume's *An Enquiry Concerning the Principles of Morals* (1751), Sidgwick's *Methods of Ethics* (1907), and Moore's emphasis on method throughout *Principia Ethica* (1903). More recently, Boyd (1988, §2.3) has favorably compared methodology in science and in ethics and metaethics but asks why there is not more progress in the latter. The importance of methodology is also recognized by many of the authors mentioned below.

[3] As should be clear, the problem identified by the argument summarized at the outset is not the mere fact of theoretical disagreement. Consensus is not always a sign of a discipline's health, whereas meticulous debate often is (*cp.* Solomon 2001 and Beatty and Moore 2010). It may be that the fact of disagreement poses an *additional* problem, if it generates a defeater in the way described by conciliationist views (see, e.g., Elga 2007 and Feldman 2007). Here, we focus not on such defeaters but on the paucity of philosophical progress itself (again, as identified by the opening argument).

[4] Many discussions of philosophical progress omit one or more of these dimensions. One possible exception is Chalmers (2014, 3), who helpfully distinguishes the first two and eventually highlights the importance of method. We critically discuss Chalmers's positive theses (regarding the measure of progress, philosophical method, and comparative progress) below.

the way many philosophers go about their business, but which have not hitherto been sufficiently justified, ordered, and integrated in a way that reveals how they can operate in the service of understanding.[5] Answering the practical and theoretical questions does not require a revolution, but a careful articulation and defense of a method that is poised to facilitate genuine progress in philosophy.

Throughout, we emphasize the *point* or *purpose* of method. This approach constitutes a significant departure from extant treatments of philosophical methodology, which tend to leave the epistemic goal of method unspecified. As a result, it is often unclear how to interpret and assess proposed methodologies, and discussants in debates over methodology sometimes appear to be talking past each other. In an effort to avoid these hazards, we begin in the next section by explicating and motivating our preferred measure of progress (theoretical understanding), thereby setting out more clearly what it takes to resolve the various dimensions of the problem of progress.

2. Theoretical Understanding

Aristotle proposed in the *Posterior Analytics* that the primary and proper end of inquiry is the acquisition of *epistêmê*—where this is not mere ordinary knowledge, but a special kind of epistemic ideal that many commentators designate with the term 'understanding.'[6] This section articulates some of the central characteristics of theoretical understanding as we envision it, and argues for its appeal as a proper goal of theoretical inquiry.

We can reveal these characteristics by considering some of the properties that a theory of a given domain must possess in order to provide understanding of that domain to a thinker who fully grasps the theory. Such a theory must possess at least six properties.

First, the theory must possess a high degree of *accuracy*, since largely inaccurate theories will fail to dispel confusion (a characteristic of *mis*understanding).

[5] Although each of these elements is familiar, the way that we combine them sometimes departs from orthodoxy. For example, we will argue (in §4.4) that although theoretical virtues such as simplicity are not entirely irrelevant in philosophical methodology, they have a subordinate status and should not play the substantive methodological role that many philosophers assign to them. We take no stand on whether this and other claims we make hold also for methodology in other disciplines: for example, we remain neutral on the extent to which the Tri-level Method's constituent criteria govern theorizing in (say) physics or history, whose distinctive characteristics might call for separate treatment.

[6] See, e.g., Burnyeat (1981). By 'ordinary knowledge' we mean, roughly, non-accidentally true justified belief, in contrast with mere correct opinion. Neither the contrast nor the notion of an accident is straightforward (these are among the reasons for 'roughly'). The intention is simply to point in the direction of the orthodox post-Gettier conception of knowledge.

Second, the theory must be *reason-based*, in the sense that it is positively supported by considerations, beyond its mere coherence, that speak in favor of its accuracy. For in the absence of this, viewing the domain through the lens of that theory must be deemed to a large extent arbitrary or haphazard (again, a characteristic of *mis*understanding).

Third, the theory must be *robust*, answering a multitude of questions about the most important features of the domain under investigation. Because a theory that neglects or dodges such questions is insufficiently comprehensive, it is destined to yield inadequate comprehension.

Fourth, the theory must be *illuminating*, in that its answers must at least sometimes be not just general but also genuinely explanatory, going beyond a mere description of those features to identify that in virtue of which they exist or are instantiated.

Fifth, the theory must be *orderly*, not simply offering such feature-specific explanatory answers but also affording a broader view of the domain by revealing how those (and other) features, as well as the proposed explanations, gel or hang together—for example, by exposing basic relations or systematic connections among them. Such a theory avoids miscellany, the paradigm of which is a mere list, which says nothing about how, if at all, its various items are ordered or organized.

Sixth, the theory must be *coherent*, not only internally but also externally, fitting well with a wide range of understanding-providing theories of other domains. A theory of one domain that massively conflicts with a coherent cluster of accurate, reason-based, robust, illuminating, and orderly theories of other domains does not further comprehension but muddles it (yet another characteristic of *mis*understanding).

Theoretical understanding, as we have construed it, is distinctive. It is not mere ordinary knowledge. Nor is it reducible to true, rational, or justified belief (or to their conjunction), since a set of propositions that is true or most rational or most justified does not thereby provide theoretical understanding. For, as explained above, the function of such understanding is, *inter alia*, to illuminate, in a robust, orderly, coherent fashion, the portion of reality under investigation, and not simply to state a series of truths or justified beliefs about it.[7] Theoretical understanding is not epistemic perfection. Still, it is a type of epistemic excellence. And it is a strong candidate for a proper goal of theoretical inquiry, and a proper measure of progress in philosophy.

[7] We allow that theoretical understanding, so characterized, may be equivalent to an elevated type of knowledge (e.g., higher order systematic knowledge-why) or a coherent web of numerous sophisticated and highly justified true beliefs; it is not our concern to oppose these positions, but rather to clarify the notion of theoretical understanding we will employ, and to distinguish it from mere ordinary knowledge (as described in the previous note) and justified true belief, which do not require the six features we have identified. Whether theoretical understanding is a type of knowledge and how it is related to justified true belief are the subject of much recent debate (see, for starters, the citations in note 10 below). For a general account of understanding that is congenial to our discussion here, see Bengson (2017), from which some of our discussion above borrows.

We believe that this last claim enjoys substantial intuitive plausibility. It can be motivated through a contrast with the popular idea, recently defended by David Chalmers, that *collective convergence on the truth* is the proper measure of philosophical progress, in the sense that other possible measures, including understanding, involve "something of a lowering of our sights for philosophy."[8] There are two points to make about this proposal.

First, collective convergence on the truth appears to be *insufficient* to satisfactorily resolve philosophical inquiry. For such convergence would not ensure possession, let alone full grasp, of a theory that exhibits all six of the features described above. But in the absence of this, we could hardly deem inquiry complete. There would remain more work to do.

Second, collective convergence on the truth appears to be *unnecessary* to satisfactorily resolve philosophical inquiry. One reason is that arrival at the *truth* is unnecessary. To illustrate, suppose we had excellent reason to think that our mental capacities were poorly suited to uncover the propositions that stand as true answers to philosophy's central questions. It would nevertheless be legitimate to claim successful resolution of philosophical inquiry if philosophers managed to develop theories that address these questions in a way that realizes all six of the features we have enumerated—for instance, by formulating extremely robust, reason-based, illuminating, orderly, and coherent views that in each case considerably narrow the field of possibilities to just two or three highly determinate, and distinct but very closely related, answers.[9] A similar point indicates that *convergence* is unnecessary. Suppose we discovered that human psychology (with its familiar penchant for generating disagreement) rendered convergence unattainable. So long as a non-trivial portion of philosophers working on free will, personal identity, skepticism, universals, the mind-body relation, God, and morality had fully grasped theories that realize all six of the features we have enumerated, it would be legitimate to claim that philosophy has made substantial progress—indeed, progress of a kind that many never dreamt possible.

[8] Chalmers (2014, 14); by 'the truth,' we understand Chalmers to be referring to the proposition that correctly answers the central question of philosophy under investigation. This is also how we understand 'true answer,' which figures in the initial formulation of the antiprogress argument in §1. Philosophers have at times privileged other epistemic goals: e.g., Gutting (2009) and Gutting (2014, 325) privileges "knowledge of distinctions and of the strengths and weaknesses of various pictures and their theoretical formulations"; Wilson (2013, 145–50) celebrates the amassing of theoretical options; Deleuze and Guattari (1996, 5) hold that "the object of philosophy is to create concepts that are always new." The considerations that follow apply *mutatis mutandis* to these positions, understood as offering alternative measures of epistemic progress.

[9] While each of these theories would attain an extraordinary degree of accuracy, it need not thereby divulge the truth (in the relevant sense; see the previous note). Contrast a scenario in which we are left with dozens of candidates, or two or three answers that are poles apart, and reason to think that we could do much better. Clearly, our theories in the situation described in the main text successfully resolve inquiry in a way that they do not in this alternative scenario.

We conclude that Chalmers's charge gets things backwards. Convergence on the truth is a measure of progress only when it is accompanied by understanding; it is taking mere convergence as a measure that would be "something of a lowering of our sights."[10]

The foregoing points about the close of inquiry indicate the importance of understanding to the epistemic project of philosophy. It may be that philosophy incorporates other, non-epistemic projects as well —e.g., those that are aesthetic, felicific, salvific, pragmatic, or political. No doubt philosophers have at times appraised competing views by these (and still other) non-epistemic standards. Our intention is not to question the legitimacy of such appraisals, or to promote a picture of philosophy on which its sole interest derives from the ambition of attaining theoretical understanding with respect to its central questions. Rather, our contention is simply that, epistemically, such understanding is a proper measure of progress in philosophy.[11]

If this is correct, two conclusions follow. First, a method satisfactorily answers the practical question only if it possesses the resources to guide the construction of a philosophical view—in metaethics and elsewhere—that is likely to enable us to acquire this epistemic good. Second, a method satisfactorily answers the theoretical question only if it delivers a principled evaluation of whether and to what extent a philosophical view is likely to provide this good.

3. Four Extant Methods

We understand a method to be a set of instructions, or criteria, for theory construction and evaluation. This section identifies austere versions of four prominent methods that many philosophers, including metaethicists, have employed in their theorizing. Although these methods are non-exclusive, each is meant to be complete, in that nothing more than following its instructions is required to successfully resolve theoretical

[10] Recent epistemology has witnessed a surge of arguments for the value of understanding over all other epistemic achievements: see, among others, Elgin (1996, 122ff.), Zagzebski (2001), Kvanvig (2003, ch. 8), and Pritchard (2010, ch. 4 and Pritchard 2016, §§2–4). We will not rely on these arguments here, though they do offer independent support for our assessment.

[11] While many "anti-theorists" *appear* to decry the ambitions we have set for philosophy (for a recent example, see Horwich 2012), their misgivings are typically directed at ideas to which we are not committed or that we explicitly reject, such as an exaggerated sense of the theoretical importance of simplicity (see below, §4.4) or an inflated notion of objectivity as requiring an "absolute conception of the world." Moreover, our approach coheres with many anti-theorists' stated motivations, such as the historical and cultural situatedness of philosophical thinking, and the wide variety of experiences (or data) relevant to philosophical reflection. Our method can also allow that, in some cases, theoretical understanding of a given philosophical domain is not achievable, or at least is not readily available; we agree, for instance, with Wiggins when he writes that it is often "a matter of prolonged and difficult inquiry gradually to improve currently accepted standards or conceptions" in philosophy (2001, 82).

inquiry. We ourselves think that these methods contain important insights. However, a brief examination of their constituent criteria in light of the foregoing analysis of the proper measure of progress in philosophy will allow us to pinpoint some of the challenges they face, and motivate the pursuit of a more adequate method in what follows.

Consider, first, what we'll call the 'method of analysis,' which focuses on clarification and instructs theorists to define or analyze a range of central terms, concepts, or properties:

> *The Method of Analysis*: When constructing a theory, a theorist ought to articulate and justify particular analyses of all of the domain's central terms, concepts, or properties that meet some sufficiently high standard (e.g., being necessarily coextensive, being intensionally correct, being theoretically serviceable). The best theory is the one whose proposed analyses meet this standard to the highest degree relative to rivals.[12]

A second method, focusing on justification by argument, is what David Chalmers has called the "method of argument," which calls for theorists to promote their view by putting together the rationale for it:

> *The Method of Argument*: When constructing a theory, a theorist ought to assemble an adequate rationale, by formulating arguments for the theory's answers to the central questions about the domain, as well as arguments that respond to relevant challenges, where the premises and inferences of these arguments meet some sufficiently high standard (e.g., being certain or self-evident, being scientifically or logically well-confirmed, being shared by members of an ideal audience subsequent to extended critical examination). The best theory is the one whose central theses are the conclusions of arguments whose premises and inferences meet this standard to the highest degree relative to rivals.[13]

[12] A seminal instance of this method in metaethics is Moore's *Principia Ethica* (1903, ch. 1). See also Ewing (1947) and Hare (1954). For more recent versions, see Jackson and Pettit (1995), Jackson (1998, ch. 5), and Finlay (2014). While the Method of Analysis takes a variety of forms—some proponents privileging ordinary usage, others formal machinery from contemporary linguistic theory, still others the broadly functional style of analysis known as Ramsification—our characterization in the text abstracts away from these details in order to make explicit its core commitments. Similarly for our formulations of the other methods below. This explains why we have described them as 'austere.'

[13] Chalmers (2014, 16); *cp.* van Inwagen (2006, Lecture 3). There are many possible examples of adherence to this method in metaethical theorizing; see, e.g., Gewirth (1978), Brandt (1979), Mackie (1977), Nagel (1986), Korsgaard (1996), Shafer-Landau (2003), Huemer (2005), Cuneo (2007), Street (2008), and Wedgwood (2007, 11–12). Enoch (2011, §1.4) and Schroeder (2007, §11.2) pursue comparative, cost-benefit approaches. Cost-benefit approaches have been influentially championed in analytic metaphysics by Lewis (1983, x-xi) and (1986, 3–5 and 134–5); *cp.* Lewis and Lewis (1970, 211–2) and Armstrong (1989, §1.4), among others.

A third method, focusing on explanation, is what we will call

> *The Method of Parsimony*: When constructing a theory, a theorist ought to identify a set of propositions about the domain that realize, to the greatest extent possible, simplicity and explanatory scope (i.e., explanations of everything that must be accounted for). The best theory is the one that achieves the greatest extent and balance of simplicity and explanatory scope relative to rivals.[14]

A fourth method, focusing on systematization, is what John Rawls called "wide reflective equilibrium," which has been a mainstay of discussions of philosophical methodology, and is often cited enthusiastically by philosophers wishing to clarify their methodological commitments:

> *The Method of Reflective Equilibrium*: When constructing a theory, a theorist ought to achieve coherence between various particular judgments (e.g., considered judgments regarding specific cases) and beliefs in general principles (e.g., universally quantified propositions) that address all of the central questions about the domain, through a reflective process of modification, addition, and abandonment of either the particular judgments or principles in case of conflict (with each other, or with any of one's other relevant convictions). The best theory is the one that achieves such coherence to the highest degree relative to rivals.[15]

It might be that the Method of Analysis yields knowledge of definitions, the Method of Argument yields justified beliefs, the Method of Parsimony yields beliefs with a high probability given the evidence, and the Method of Reflective Equilibrium yields a coherent set of judgments. Still, there are live questions about whether any of these methods is adequate.

Our basic concern can be stated succinctly. Recall what a method would have to be like in order to yield, as its output, a theory that provides understanding of a given domain. Following its instructions would have to produce a theory that is *accurate*, *reason-based*, *robust*,

[14] This method is highly influential in contemporary metaphysics. For an example in metaethics, see Gibbard (2003, xii), who maintains that his antirealist "hypothesis explains the phenomena—and no normative realism that extends beyond the hypothesis is needed." See also Harman (1977, ch. 1), Blackburn (1993, pt. II), Joyce (2001, 168), and Olson (2014, esp. 147–8).

[15] See, e.g., Rawls (1971, 1974), DePaul (1993, 1998), Daniels (1996), Sayre-McCord (1996), and Scanlon (2002, 149): "[I]t seems to me that this method, properly understood, is in fact the best way of making up one's mind about moral matters and about many other subjects. Indeed, it is the only defensible method; apparent alternatives to it are illusory." Such a sentiment shows up outside of moral philosophy as well; see, e.g., Keefe (2000, 42): "There is, I suggest, no possible alternative methodology." Hereafter, we elide 'wide.'

illuminating, *orderly*, and *coherent*. We have no particularly good reason to think that any of the methods considered above secures all six of these features, and some reason to think that each is bound to fall short. The Method of Reflective Equilibrium (infamously) fails to promise even a modicum of accuracy; nor is it clear that it ensures outputs that are reason-based or illuminating in the indicated senses. The Method of Parsimony does not guarantee outputs that are reason-based, robust, and orderly. The Method of Argument does not prohibit outputs that are neither orderly, illuminating, nor robust. And nothing in the Method of Analysis ensures that its outputs will be robust, orderly, and illuminating. In effect, each of the four austere methods we have identified fails to fully secure one or more of the features required for theoretical understanding.[16]

It might be thought that by conjoining the four methods we arrive at an "all-inclusive" method that evades this objection. Perhaps so. But we are not sanguine about the prospect. By all lights, the four methods privilege criteria that appear to point in very different directions, making it unclear whether and how they can be consistently conjoined. At the very least, it seems to us likely that their integration would require revisions (in the form of supplements or changes) that substantially alter the letter, and violate the spirit, of at least one of them.

Does that imply that there is no sound method for philosophical theorizing? Clearly, it does not, if a plausible alternative is available. Such an alternative may draw from the above methods, while seeking to avoid their shortcomings. Our project in the next section is to present and defend such an alternative, and to explain how it addresses the practical and theoretical questions. We then return, in the final section, to the existential and comparative questions.

4. The Tri-level Method

The method that we develop and defend consists in five criteria that operate at three levels. We will introduce these levels and their constituent criteria—accommodation, explanation, substantiation, integration, and virtuosity—in a manner that acknowledges room for various

[16] Notably, not all proponents of these methods would resist our conclusion here. For instance, Rawls (1980, 534) himself described reflective equilibrium as merely uncovering the doctrine that is "most reasonable for us" to accept; similarly, Goodman (1955, 61–2) and Brink (1989, 140–1) emphasize that this method provides justification, allowing that it does not facilitate other, stronger epistemic achievements (*cp.* Tersman (2018, §§7–8), who stresses that the sort of justification provided by reflective equilibrium is *internalist*). More recently, Walden (2013, 245) notes that reflective equilibrium yields an output that is simply "justified, just, or valid." However, his self-described "defense" of this method implies that "the method of reflective equilibrium is not, exactly, *anything*" (244). Given the point and purpose of method, we regard such emptiness as a profound defect. Cp. Williamson's (2007) injunction to "do better."

controversies to be argued about independently of the method itself; our project here is to articulate a framework whose integral parts are subject to elaboration and refinement on the basis of further philosophical exploration. The first level focuses on the putatively central features, or *core data* (as we shall call them), in a given domain; the second and third focus on the theories that attempt, in the ways specified below, to adequately account for these core data.

Before explaining these three levels, let us comment on the notion of core data as applied to metaethics. The domain, or subject matter, of metaethics concerns the nature and status of moral thought, discourse, reality, and knowledge. The core data of metaethics are given by claims regarding central features of such thought, discourse, reality, and knowledge—claims that metaethicists (considered collectively) have reason, at the outset of theorizing, to believe. These features are many and diverse. One of them, often stressed by expressivists, is that many moral judgments are intimately connected to motivation. Another datum, typically stressed by realists, is that some moral demands obtain independently of our contingent commitments. Yet another, sometimes stressed by naturalists, affirms the intimate connection between moral considerations and non-moral considerations. Still another, stressed by non-skeptics, allows that there are justified moral beliefs regarding general principles. These represent just a few examples; below we mention a few more.[17]

4.1 Level One: The Accommodation and Explanatory Criteria

Progress requires sensitivity to the core data. Thus, the first criterion is

> *The Accommodation Criterion*: A view of a given domain must accommodate the core data in that domain, or at least explain[18] why those data require no such accommodation,

where a view V *accommodates* a datum D if and only if D is likely to hold or be true, given V. We offer three clarificatory remarks regarding this criterion.

[17] Not all philosophical data must be general in the way that these metaethical data are. In normative ethics, for example, the core data might include myriad first-order moral verdicts (regarding, e.g., the wrongness of wanton torture). A comprehensive philosophical methodology would include a full presentation and defense of a theory of data in philosophy, which would address questions concerning, *inter alia*, general features of their contents (e.g., whether they are psychological or linguistic or neither) and how they are collected (via thought experiment, intuitions, scientific experiments, or by other means). We cannot undertake that task here; see Bengson, Cuneo, and Shafer-Landau (2019) for our view of the nature of data and its role in theoretical inquiry.

[18] We will say more about the notion of explanation when formulating the second criterion.

First, while we leave open the precise analysis of the relevant notion of likelihood, we believe that its basic meaning and application are intuitive. For example, both moral realism and expressivism are *logically consistent* with the datum that moral judgments have many of the "marks" of descriptive beliefs (e.g., on the face of it, they are classificatory, can be felicitously described as true or false, can enter into inferential relations, and are apt candidates for justification and knowledge). However, the former view clearly makes this datum *likely* in a way that the latter does not. This is a theoretically important difference between the two views, which an adequate method must register. The purpose of the Accommodation Criterion is to promote such discriminations, however they are further analyzed.[19]

Second, the Accommodation Criterion incorporates what is, in effect, an escape clause: a candidate view can satisfy this criterion by explaining why a core datum requires no accommodation. In our view, this is as it should be. For one thing, sometimes a view coheres well with an independent set of claims that fully accommodates the core data, in which case the view need not do this itself. We also ought to allow that a view can fare well with respect to the Accommodation Criterion even though it is or seems revisionary in one or another respect.[20] Note, however, that the escape clause renders nonaccommodation an option. What is needed to legitimately exploit this option is reason to think that the option merits endorsement. This is a substantive constraint, and it has an important implication: namely, satisfaction of the escape clause does not come cheap, but is a bona fide achievement.

The third clarification concerns the possibility that a view satisfies the Accommodation Criterion to a greater or lesser degree. In some cases, a view will accommodate most but not all of the core data; it requires supplementation in order to handle the remainders. We wish to allow that such a view could be understood as incorporating the supplements; consequently, the view can be a serious contender for being the one that best illuminates the domain, so long as it (the original view plus the supplements) satisfies the Accommodation Criterion to a high degree—that is, so long as the remainders are relatively few.

[19] We invite further elaboration and refinement of the relevant notion of likelihood, for now insisting only that it preserve four important properties: (i) it is stronger than logical consistency (see the example in the text); (ii) it allows that a view may render D likely without explaining D (an example is provided in §4.2); (iii) it allows that a view may explain D without making D likely, if that is indeed possible (once again, see §4.2); and (iv) whether a view makes D likely is not fully determined by the modal status of D (as shown also by the examples given).

[20] The need for some such allowance is familiar. It may even be that in order for a view to fare well with respect to the Accommodation Criterion it *must be* revisionary. This would be the case if, for example, it was shown that the full range of core data are incompatible.

This brings us to the second criterion embedded in our method's first level, which concerns the explanation of the core data. We call this

> *The Explanatory Criterion*: A view of a given domain must explain the core data in that domain, or at least explain why those data require no such explanation,

where a view V *explains* φ only if V invokes some ψ such that, if ψ holds or is true, then φ holds or is true because ψ holds or is true.[21] Let us make two remarks about this criterion. First, the escape clause in the Explanatory Criterion reminds us to be judiciously open-minded about the possibility of showing that one or more of the core data are explanatorily primitive. This is, of course, not to be conflated with failing to explain one or more of the core data that require explanation. That is a different possibility, to which our comments above (regarding satisfaction of the escape clause in the Accommodation Criterion) apply *mutatis mutandis*.

Second, satisfying the Explanatory Criterion without remainder—fully explaining *all* of the core data that are accepted as calling for explanation—is difficult, and cannot in general be a criterion of adequacy for a view. We acknowledge that in some cases it may be a significant achievement to explain even a limited range of the core data that require explanation. Of course, when there are many remainders, that is some indication that the view is not in fact likely to provide a great deal of illumination of its subject matter. But so long as the remainders are relatively few, and the Explanatory Criterion is satisfied to a high degree, then a view's failure to satisfy this criterion without remainder is compatible with the view's being poised to facilitate understanding to a high degree.

4.2 On the Relation between the Accommodation and Explanatory Criteria

While the Accommodation and Explanatory Criteria both focus on the putatively central features of a domain under investigation (its core data), they mark two different, though complementary, intellectual projects: the former criterion investigates the likely truth of a core datum, whereas the latter asks "Why is it true?" These criteria

[21] We leave open the precise analysis of the notion of one entity's holding or being true *because* another entity holds or is true; presumably, an adequate analysis will countenance various types of explanation (e.g., causal, unificationist, constitutive, grounding, essentialist). Such explanations must of course be adequate. We will also remain neutral about the precise conditions of adequacy governing such explanations; presumably, explanation brings with it its own standard of assessment, and arguably such standards are sometimes domain-specific. Throughout, we elide 'adequate,' speaking simply of 'explanation' and 'explaining.'

also embody divergent desiderata, at least insofar as a view may render a datum likely without explaining it. This is, for example, one way of interpreting the charge that realism fails to account for the relation between moral and non-moral features, as codified by various moral supervenience theses: it renders the supervenience of the moral on the non-moral likely, but fails to explain it (or certain of its features). The idea that a view explains a datum without accommodating it is less straightforward. Arguably, in most and perhaps all cases, if a view explains a datum—citing that in virtue of which it holds—then the datum will be likely, given that view. Perhaps there are exceptions in which explanation does not entail accommodation. But we can afford to remain neutral about this matter here.[22]

The Tri-level Method posits a minimal condition of adequacy on a view: it must fare well with respect to both the Accommodation and Explanatory Criteria. The basic rationale for this condition is simple: views that do not properly address the core data in the domain under investigation are not going to provide theoretical understanding of their subject matter. The reason is that, by flouting the Accommodation Criterion, a view is unlikely to be *accurate*; by defying the Explanatory Criterion, it is unlikely to be *illuminating*. But, as discussed above, a theory must be both accurate and illuminating in order to deliver understanding. Accordingly, only views that fare well at the first level are likely to provide understanding of—hence philosophical progress regarding—their subject matter.

4.3 Level Two: The Substantiation and Integration Criteria

The first level of the Tri-level Method identifies those views that accommodate and explain the core data to a high degree. But addressing the core data in these ways is not enough. For views make claims or have commitments that raise questions about themselves, as well as about their relation to scientific theories and common sense, and it is vital that these questions be addressed if we are to make progress in philosophy. The second level of the Tri-level Method presses us to address higher level issues such as these.

At the second level a view is first and foremost called upon to defend and explain—in short, to *substantiate*—all of the claims and commitments made when addressing the core data at the first level. A view affords greater understanding of its target to the extent that it does well at this. The reason is that, by defending its claims and

[22] We allow that further elaboration and refinement of our method may yield a stand on the following possibility: there is a datum, D, that is an instance of a type, T; a view incorporates a claim, C, that explains any instance of T, and thus explains D; but C does not make any particular instance of T likely, and so does not accommodate D. Were this a genuine possibility, then explanation would not entail accommodation.

commitments, a view becomes *reason-based*; by explaining its claims and commitments, it attains *robustness* and enhances the prospect of overall *illumination*. Consider a view that accommodates and explains all of the core data in a domain only by invoking a set of otherwise undefended, brute claims and commitments; when forced to choose between such a view and an alternative view that accommodates and explains the same data through claims and commitments that receive independent defense and explanation (substantiation), we clearly ought to pick the latter, which is not only more robust (e.g., it contains more information) but is also better supported and offers greater illumination.

We characterized the notion of explanation with which we'll work earlier. A *defense* of (or, equivalently, an argument for) a proposition p consists in identifying a reason or reasons for which p is to be believed. A view must defend and explain whatever claims (i.e., constitutive theses) and commitments (i.e., implications of those theses and their applications) it makes at the first level when accommodating and explaining the core data. A view must also defend and explain anything it invokes or implies in the course of defending and explaining specific claims and commitments made at the first level. If those defenses and explanations invoke further claims and commitments, then they, too, must be defended and explained. While an ideal theory might go on substantiating its claims and commitments until it establishes that—to borrow Wittgenstein's famous metaphor—the spade can turn no more, the demand for substantiation will typically be satisfied to a greater or lesser extent.

Substantiating a view consists primarily in providing defenses and explanations of its own claims and commitments, where a view's explanations must not invoke the core data that they themselves explain (on pain of circularity).[23] Sometimes a view will deny that one or more of its claims or commitments requires defense or explanation. In such a case, the view must then explain why the exception is called for.

Suppose we use the expression 'burdens of substantiation' to designate two classes of claims and commitments made by a view of a given domain: the claims and commitments made by the view at the first level, when accommodating and explaining the core data, and the claims and commitments made by the view when defending and explaining its own claims and commitments. (It should be clear from this stipulation that the contents of the burdens of substantiation always depend on the particular view in question.) This stipulation allows us to succinctly state:

[23] We allow that a view's defenses of its claims and commitments may invoke the core data that they themselves accommodate or explain, as in a case of abductive defense. Note, however, that it is not the core data alone that provide the needed defense; additional claims, in all likelihood substantive ones (e.g., that the claim or commitment in question provides the *best* explanation of a datum), will be needed.

The Substantiation Criterion: A view of a given domain must discharge its burdens of substantiation, or at least explain why it is not required to do so.

We turn now to the second criterion embedded in our method's second level, which we call

The Integration Criterion: A view of a given domain must integrate with our best picture of the world, or modest extensions thereof, or at least explain why the absence of such integration is unproblematic,

where a view V *integrates* with φ only if the truth of V is compatible with the truth of φ. Let us comment on this criterion and its primary rationale. The phrase 'best picture of the world' is to be understood in a broad and relatively non-committal way to designate a set of uncontroversial claims, such as those furnished by our best physics, biology, chemistry, medicine, logic, and a broadly commonsensical conception of what was, is, will be, might be, must be, and could have been. Modest extensions of our best picture of the world are to be understood as further claims that are warranted by uncontroversial patterns of inferential reasoning from the claims that are already included in this set. The primary rationale for demanding integration with our best picture of the world is that, in the absence of such integration, a view lacks the *coherence* displayed by theories that yield understanding.[24]

Unsurprisingly, it is a complex matter to specify, at any given time, what is furnished by our broadly commonsensical conception of the world. For present purposes, we may take it that a claim is located within that conception only if it is accepted by both you and us; we may take it as a sufficient condition that the claim be common ground between your family and ours. That lightning tends to signal rain, that a goldfish left out of water will die, that being hit often hurts, that most human beings know their own names—these make the cut. That a particular metaethical view such as moral realism or constructivism is true (or false), or that a specific philosophical thesis such as the Principle of Sufficient Reason is correct (or incorrect), does not.[25]

[24] Notice that this rationale encompasses the idea that an adequate theory must be well-positioned to respond to a range of objections—in particular, according to the Integration Criterion, those objections emanating from what we independently take ourselves to know about ourselves and the world we inhabit.

[25] We have offered (i) a general characterization of the notion of the best picture of the world, (ii) identified a substantive necessary condition for inclusion picture, and (iii) proposed a substantive sufficient condition for inclusion therein. This triangulation and the accompanying examples provide an informative initial explication of the notion of the best picture of the world, which distinguishes it from various other notions (e.g., Descartes' "preconceived opinions," Bourdieu's *habitus*, and Searle's "Background" and "Network"), while respecting the prospect of further elaboration and refinement.

Some philosophical views clearly conflict with what is included in or implied by our broadly commonsensical conception of the world, and hence with our best picture of the world. Of course, these views might deny that such conflict is problematic. They will not completely avoid the need to address the lack of integration, however, for an adequate view must then explain why the conflict it posits is unproblematic—per the final clause in the Integration Criterion.

The Substantiation and Integration Criteria that make up the second level of the Tri-level Method go well beyond the Accommodation and Explanatory Criteria that compose its first level. For both criteria at level two concern not the accommodation and explanation of data by a view, per level one, but the defense and explanation of that view's own claims and commitments, compatibly with our best picture of the world. At the same time, the two levels are complementary: when the Substantiation and Integration Criteria are fulfilled (to a high degree) in conjunction with fulfillment of the Accommodation and Explanatory Criteria (again, to a high degree), the resulting view is not only on track to be *accurate*, *illuminating*, *reason-based*, *robust*, and *coherent*, it is also poised to achieve the *orderliness* that is characteristic of theories that promote understanding of their subject matter.

4.4 Level Three: The Virtue Criterion

Suppose that two or more views do a roughly equally good job at both the first and second levels. This means that they will be roughly on a par with respect to accommodating and explaining the core data, substantiating the claims and commitments needed to do so, and achieving compatibility with our best picture of the world (or modest extensions thereof). In any such case—and only in such cases—the Tri-level Method dictates that we then apply another criterion in order to determine which view is best positioned to yield understanding. This criterion calls for possession of theoretical virtues; candidates include simplicity, naturalness, fruitfulness, and beauty.[26] Such are the topic of

> *The Virtue Criterion*: Other things being equal, a view of a given domain must be more theoretically virtuous than its rivals.

There are several points to make about this criterion and its motivation.

First, as indicated by the prefatory clause 'all else being equal,' the Virtue Criterion does not have the same application conditions as the

[26] We discuss simplicity below. For advocates of naturalness and fruitfulness, see e.g. Weatherson (2003) and Rayo (2013), respectively; *cp.* Lewis (1986, 3–5), Sider (2011, §2.3), and Paul (2012). See Kriegel (2013, §3) for critical discussion of the role of putative theoretical virtues in certain areas of philosophy.

other four criteria. The Virtue Criterion is relevant when and only when there are two or more views that are more or less equal with respect to the four criteria at the first two levels. In effect, the Virtue Criterion plays only a tie-breaking role. Since the first four criteria will often suffice to identify one view as better than its rivals, there will be a wide range of cases—most cases, we suspect—in which this fifth criterion has no role to play whatsoever.

Second, most philosophers have thought that, all else being equal, we should prefer views that are more virtuous—for example, simpler, more natural, more fruitful, more beautiful, etc.—than their rivals. Because our method is designed with an eye toward promoting understanding, it ratifies this preference if, but only if, such virtuosity is conducive to understanding when all else is equal. Any alleged virtues that do not contribute to theoretical understanding when all else is equal fail to qualify as theoretical virtues, and thus fail to be relevant to the Virtue Criterion. We do not take a stand here on which virtues pass muster.[27]

Third, the perspective on theoretical virtues encoded in the Virtue Criterion follows from the conjunction of two claims:

(i) None of the theoretical virtues is such that its possession, all by itself, indicates a view's capacity to yield understanding of its subject matter.
(ii) Once the Accommodation, Explanatory, Substantiation, and Integration Criteria are satisfied to a high degree, then a view's exemplifying a given theoretical virtue *will*, when all else is equal, serve as a measure of its ability to provide understanding.[28]

[27] Two reasons explain our agnosticism; both were alluded to above. First, and as a wholly pragmatic matter, we do not think that there will be much need for recourse to the Virtue Criterion in making comparative evaluations of metaethical views. Second, we are presenting the Tri-level Method at a level of abstraction that allows space for various controversies—including debate over which putative theoretical virtues facilitate understanding when all else is equal—to be argued about independently of the method itself.

[28] Our approach is, therefore, committed to the coherence of a normatively relevant property F such that, when all else is equal, what has F to the greatest extent is most φ (for some $\varphi \neq F$), although having F does not by itself entail being at all φ. Supposing that simplicity really does deserve a spot in the roster of theoretical virtues (i.e., if, but only if, it is conducive to understanding when all else is equal), then a possible value of F is *being-theoretically-simpler-than* when φ is *being understanding-providing*. A precedent is an approach to epistemic justification on which, when all else is equal, the perceptual experience that is clear and vivid to the greatest extent provides most justification, although clarity and vividness do not by themselves entail that what has them is at all justification-providing. Both are instances of the broader point that comparative evaluation of φ-ness may be partly determined by factors that do not at all, in isolation, determine the degree to which some item or individual exemplifies φ. This point underwrites the conjunction of (i) and (ii).

The conjunction can be motivated by the following sorts of considerations. (To keep the discussion manageable, we will not attempt to cover each and every putative theoretical virtue, but will focus on simplicity.)

Think of a solipsist position, such as that introduced by Descartes toward the beginning of his *Meditations*. This position is strikingly simply, stating that there exists exactly one person—you—and your mental states. Solipsism is in many respects a much simpler view than one that posits an external world, distinct from you, inhabited by some untold number of types of entities and tokens of those types. And yet solipsism is a crazy position. It is crazy largely because it so thoroughly disregards the core data that any adequate view about what there is must accommodate and explain (including the existence of your fellow human beings), fails to defend and explain its own claims and commitments (including how there can be you and only you), and flouts the demand to attain compatibility with our best picture of the world. Nor does it exploit the escape clauses by explaining why it need not do any of these things. *Perhaps* solipsism can account for these data, substantiate its claims and commitments, and achieve compatibility with (at least modest extensions of) our best picture of the world, or satisfy all of the relevant escape clauses. The point is that the bare fact that solipsism is simpler than the external world view does not, in and of itself, promote theoretical understanding; the relative simplicity of solipsism does not speak in favor of its capacity to yield understanding of its subject matter.

This argument for claim (i) can be extended to other putative theoretical virtues. It implies that while such virtues may play an important methodological role, as many have supposed, their significance is more restricted, and more modest, than is sometimes assumed. Specifically, in light of the argument just given, we submit that their role is plausibly construed in the manner described in claim (ii)—namely, as ceteris paribus tie-breakers.[29]

It might be objected that the methodological role of theoretical virtues is more powerful than our view allows. An alternative view is that a theory's virtues can tip the scales in its favor, so long as the theory does at least reasonably well in other respects (e.g., it attains some degree of accommodation). On this intermediate position, a simpler theory that happens to do less well than its primary competitors

[29] We are sympathetic—but not wedded—to Zagzebski's (2001, 244) suggestion that in some cases "understanding is achieved partly by simplifying what is understood, highlighting certain features and ignoring others." Theoretical virtues may do this by, for example, making a theory more orderly. It should be clear that neither (i) nor (ii) requires the contentious thesis that a theoretical virtue is "a guide to truth" about a philosophical domain (contrast, e.g., Paul (2012, 21) and Sider (2013, §1)). Nor do these claims take a stand on whether the virtuosity of a theory, in and of itself, sometimes renders acceptance of the theory *reasonable* or *justified*. For helpful discussion of simplicity, see Sober (2015).

vis-à-vis the Accommodation, Explanatory, Substantiation, and Integration Criteria could still be deemed best, if its competitors are incredibly ungainly in comparison.

We find this objection unpersuasive. We have argued that the Accommodation, Explanatory, Substantiation, and Integration Criteria are constitutively linked to a series of important properties, concerning the extent to which a theory is accurate, reason-based, illuminating, robust, orderly, and coherent. If a theory fares poorly in comparison to its rivals in light of those criteria, then it is *less* likely than its rivals to possess these six properties to the highest degree. It follows that the theory is *not* the one that is most likely to facilitate understanding—even if it far surpasses its competitors with respect to simplicity (or is more theoretically virtuous in other respects). That is just what our view of theoretical virtues implies.

It bears emphasizing—as a fourth and final point about the Virtue Criterion—that our discussion has focused on theoretical virtues. That is, we have been considering the virtuosity of a *theory*, and hence the significance of the *being-theoretically-more-virtuous-than* relation (whose relata are only whole theories or views). For all we have said, appeals to simplicity and various other putative virtues might have another kind of significance when what is at issue is, say, the explanation of particular phenomena, such as elements of the core data. In that case, we might note that one theory's explanation of some phenomenon is more virtuous than the explanation provided by some other view. But that would bear upon the wholesale evaluation of these theories only indirectly, if at all, since it would not imply that the former theory is virtuous, nor that it is more virtuous than the latter, and it would not imply that the former is more likely than the latter to provide understanding.

4.5 Implications for the Practical and Theoretical Questions

The set of instructions implied by the Tri-level Method's constituent criteria supplies substantial practical guidance for theory construction; its characterization of assessment and comparison provide a means by which to determine the individual and relative merits of a theory. Putting these together, we may articulate the core practical and theoretical content of

> *The Tri-level Method*: When constructing a theory, a theorist ought to articulate a set of claims and commitments that (i) satisfy, to the highest degree possible, the Accommodation, Explanatory, Substantiation, and Integration Criteria, and (ii) possess (to the extent possible) virtues relevant to the Virtue Criterion. The best theory is the one that satisfies the first four criteria—and, as relevant, the Virtue Criterion—to the highest degree relative to its rivals.

We argued above that this method is constitutively linked to understanding, insofar as its constituent criteria are such that their application delivers, as output, a theory that is accurate, reason-based, illuminating, robust, orderly, and coherent.[30] This makes it importantly different from the four methods considered in §3. However, as should be clear, the Tri-level Method does not wholly disavow those methods; instead, we believe it incorporates what is right, while jettisoning what is not, in each of those precursors. That the Tri-level Method is constitutively linked to understanding also underwrites its capacity to help resolve the practical and theoretical dimensions of the problem of progress.[31]

5. Existential and Comparative Progress

We have proposed a method that answers the practical and theoretical questions. We now turn to the existential and comparative questions. These linger behind the long-standing and influential charge that philosophy's progress with respect to its central questions does not measure up to that made in mathematics and the natural sciences. Bertrand Russell famously articulated the charge in *The Problems of Philosophy*:

> If you ask a mathematician, a mineralogist, a historian, or any other man of learning, what definite body of truths has been ascertained by his science, his answer will last as long as you are willing to listen. But if you put the same question to a philosopher, he will, if he is candid, have to confess that his study has not achieved positive results such as have been achieved by other sciences.[32]

Although Russell frames the contrast in "positive results" in terms of a "definite body of truths," that particular measure—rather than

[30] Importantly, the constitutive link between the Tri-level Method and theoretical understanding will remain on any plausible elaboration and refinement of the Tri-level Method's key notions.

[31] The efficacy of using the Tri-level Method will depend on several factors, including our ability to identify competing theories' remainders (per §4.1), spot adequate defenses and explanations of their claims and commitments (per §4.3), and (as needed) determine their comparative virtuosity (per §4.4). We are not in the business of presenting algorithms or metamethods for such identifying, spotting, and determining. What we are doing is presenting a method that locates the sorts of criteria whose satisfaction by a view implies that it is poised to promote understanding of a subject matter. We can say, in general terms, what the key notions in those criteria—accommodation, explanation, substantiation, integration, and virtuosity—amount to, as well as how they interact. What we cannot do in the compass of this article is to defend a single (and doubtless contentious) specification of those notions, of the kind required to formulate and implement the relevant metamethods.

[32] Russell (1912, 154–5).

theoretical understanding—is incidental to his central negative thesis, namely, that philosophy compares unfavorably with other intellectual fields in respect to progress regarding their central questions. This thesis continues to be widely accepted.[33] However, we believe it to be unwarranted, being based on an illicit slide between two types of questions. Distinguishing them serves not only to mitigate the force of charges such as Russell's but also helps to showcase the Tri-level Method's role in addressing the existential and comparative dimensions of the problem of progress.

A field's central questions divide into two types: those concerning the field's *fundamental* questions, whose resolutions are among the field's ultimate (perhaps even constitutive) aims at any time, and those that concern its *foremost* questions at a specific time, whose resolutions are among the field's immediate aims at a given time. (Resolutions of foremost questions may but need not contribute to resolutions of fundamental questions.) The distinction is intuitive and can be illustrated by calling to mind questions from non-philosophical disciplines.

Consider the natural sciences: On the one hand are questions concerning, say, the history of the universe (including its origins, if any there be), the basic building blocks of matter, and the earliest genesis of life (its how and when). On the other hand are questions concerning, say, the existence and character of the Higgs boson, the consistency of principles of special relativity and quantum mechanics, the sources of altruistic motivation, and the structure of the human genome. Although those on the latter list are of great importance, and can be counted among the foremost questions in contemporary scientific investigation, they are not fundamental to their respective fields in the same way as those on the former list.[34] The distinction also has application in mathematics, where the fundamental questions arguably concern, *inter alia*, the structure of the natural numbers and the distribution of primes. In contrast, the twenty-three mathematical problems famously articulated by David Hilbert in 1900 delineate not the fundamental questions of mathematics, but rather (in Hilbert's own words) specific questions "which the science of to-day sets and whose solution" is—or, we should now say, was—of foremost interest and importance, bearing "deep significance … for the advance of mathematical science" in the twentieth century.[35]

Philosophy, too, has its fundamental questions: these concern, *inter alia*, free will, personal identity, skepticism, universals, the mind–body relation, God, and morality (understood broadly to include both

[33] We cite several examples below (see note 39). For a recent example in a popular venue, see Papineau (2017).

[34] We allow that the distinction between fundamental and foremost questions is not always sharp but may mark poles on a continuum.

[35] Hilbert (1902, 437–8).

normative ethics and metaethics). Each of these questions belongs to and helps to determine the contours of particular subfields within philosophy. While these questions are certainly on the radar of contemporary philosophers, much philosophical research in each of these subfields over the past few decades is perhaps best understood as devoted to far more specific questions, which are not fundamental in the same way, but are plausibly classified as the foremost questions at the time. These include questions about the relation between consciousness and behavior (philosophy of mind),[36] the varieties of epistemic luck (epistemology), the basic features of metaphysical grounding (metaphysics), and the connection between moral reasons and motivation (metaethics).

It should be clear that when it comes to the *fundamental* questions of the natural sciences, mathematics, and philosophy, we've not yet achieved the level of theoretical understanding to which we aspire. At the same time, we have achieved substantial understanding with respect to many of the *foremost* questions in each of these fields.

For an example of the latter achievement in philosophy (we return to the former below), consider again the domain of metaethics. Contemporary metaethical theories agree on the following claims about the connection between moral reasons and motivation: (i) There is the notion of a normative reason, or consideration that favors action, and (ii) there is also the notion of a motivating reason, or that in light of which an agent acts. While (iii) the two sorts of reasons are distinct, (iv) in certain conditions, normative reasons and motivating reasons may converge. Regarding distinctness, (v) all of an agent's motivating reasons bear an intimate relation R to her psychology (e.g., her motivating reasons are identical to, grounded in, or enabled by her mental states), whereas (vi) it is unclear whether this is so for all of her normative reasons. Furthermore, (vii) when an agent does in fact access her normative reasons, they too can bear R to her psychology. All seven of these claims are reason based, and with respect to the connection between moral reasons and motivation, they are accurate, robust, illuminating, coherent, and orderly. In this way, they jointly realize the six features of theoretical understanding, and represent substantial progress regarding a foremost question of contemporary metaethics.

Notice that by endorsing these seven claims about the connection between moral reasons and motivation, contemporary metaethical theories are able to better *accommodate* and *explain* the relevant data about moral reasons than their predecessors. The claims have

[36] Seminal discussions include Putnam (1963), Searle (1980), and Block (1981) and (1995).

also been *substantiated*, and efforts have been made to show that they hold the promise of being *integrated* with our best picture of the world, to a greater extent than claims about this connection made by earlier views. Given our earlier contention that the Tri-level Method is constitutively linked to understanding, it should come as no surprise that realization of the six features of theoretical understanding correlates with satisfaction of the method's four main criteria in this way.

This illustrates how the Tri-level Method positions us to identify progress with respect to the foremost questions in philosophy, and more importantly, to explain how such progress has occurred: namely, through success at accommodation, explanation, substantiation, and integration with respect to the subject matters of those questions.[37] The method also helps to explain why there has been progress *to some extent* with respect to philosophy's fundamental questions. But it does so while also helping to explain why there has been a relative paucity of progress with respect to those questions.[38] For—and here is the explanation—philosophers have not constructed well-substantiated views that accommodate and explain most or all of the central features (core data) of the subject matters of the fundamental questions, compatibly with our best picture of the world. Still, insofar as they have done so with regard to a wide range of the subject matters of the foremost questions, as illustrated above, they have developed views that vindicate the claim that there has been genuine progress in philosophy.

Let us take stock. In preceding sections we argued that the Tri-level Method paves the way for answers to the practical and theoretical questions. This section has argued for three further, interrelated conclusions, in reply to the existential and comparative questions.

[37] Our claim is not that the construction of views that satisfy the Tri-level Method's criteria has always been *intentional*; rather, we suspect that in many cases philosophers have intended to satisfy criteria invoked by other methods (e.g., the Method of Argument) and have happened, in so doing, to satisfy the Accommodation, Explanation, Substantiation, or Integration Criteria. We also allow that a comprehensive explanation of epistemic progress with respect to the foremost questions of philosophy will cite other factors, such as the uncovering of core data.

[38] We accept this explanandum. Our position thus contrasts with Stoljar's (2017) interesting reply to what we have called the comparative problem. As we understand his view, he maintains that (in our terminology) philosophers have not merely answered many foremost questions but have resolved some of the field's fundamental ones; he cites physicalism's answer to the mind-body problem, as against Descartes' dualistic answer. We are not ready to sign up for this Herculean contention, even when it is nuanced in the way that Stoljar advises (viz., through a fine-grained analysis of problems).

The first conclusion is the rejection of Russell's negative thesis, in conjunction with a diagnosis of its allure: it is owed in part to a failure to distinguish fundamental questions from foremost ones. We do not contend that this distinction shows that philosophy is on par with mathematics and the natural sciences with regard to their respective questions, only that it reveals that the situation is not nearly as bad as many (including Russell) have implied.[39]

We have also—as our second conclusion—shown how, with respect to foremost questions, the Tri-level Method helps to explain philosophical progress, by identifying its probable source: with respect to a range of such questions, philosophers have developed views that satisfy the Tri-level Method's criteria to a fairly high degree.[40] Unsurprisingly, they have not done so with respect to philosophy's fundamental questions, whose scope and complexity often render the task of constructing views that satisfy the Tri-level Method's criteria to a high degree extraordinarily difficult.

In effect—this is our third conclusion—the Tri-level Method helps to explain the general (but innocent) paucity of progress with respect to those questions.[41]

Of course, there is a sense in which advancement even with respect to philosophy's foremost questions has been slow and haphazard; while there has been progress on these questions, it has come in fits and starts. But this is only to be expected, given that a method whose basic criteria are constitutively linked to theoretical understanding, as the Tri-level Method's are, has not previously been formulated, much

[39] It would of course be unsurprising if philosophy's progress with respect to its fundamental questions compared unfavorably with progress in mathematics and the natural sciences with respect to their foremost questions. Although such comparison is clearly problematic, it regularly plays a substantive role in critiques of philosophical progress: see, e.g., McGinn (1993, 12), Dietrich (2010, §2), Gutting (2014, §11), and Chalmers (2014, 9–12). The latter's recent defense of Russell's negative thesis contrasts mathematicians' successes (or partial successes) with respect to the majority of Hilbert's questions, with lack of success with respect to the philosophical questions treated in Russell's text. But, as we have just explained, Hilbert's questions are foremost, not fundamental; all, or nearly all, of the questions in Russell's text are fundamental.

[40] An implication is that theorists who have attempted to explain lack of progress by appeal to our inherent cognitive limitations or to features of philosophical questions themselves have overstated their case. *Cp.* McGinn (1993) on "cognitive closure."

[41] To make explicit the implications for the argument, summarized at the outset, that introduced the problem of progress: in recognition of substantial epistemic progress on philosophy's foremost questions, we reject step three if 'central questions' is restricted to foremost questions, whereas we reject step one if 'central questions' is restricted to fundamental questions, and we reject step two if 'central questions' covers both fundamental and foremost questions. Either way, the anti-progress conclusion is averted (and not simply because we reject, for the reasons given earlier, step one's emphasis on true answers).

less fully implemented. Here, too, we believe that, with suitable methodological discipline, progress is within reach.[42]

References

Armstrong, David A. *Universals: An Opinionated Introduction*. Boulder: Westview Press, 1989.

Beatty, John, and Alfred Moore. "Should We Aim for Consensus?," *Episteme* 7 (2010): 198–214.

Bengson, John. "The Unity of Understanding." *Making Sense of the World: New Essays on the Philosophy of Understanding*, Stephen Grimm, ed. Oxford: Oxford University Press, 2017, (14–53).

Bengson, John, Terence Cuneo, and Russ Shafer-Landau. "Methods, Goals, and Data in Moral Theorizing." *The Routledge Handbook of Moral Epistemology*, ed. Karen Jones, Mark Timmons and Aaron Zimmerman. Routledge, 2019, (409–426).

Blackburn, Simon. *Essays in Quasi-Realism*. Oxford: Oxford University Press, 1993.

Block, Ned. "Psychologism and Behaviorism," *Philosophical Review* 90 (1981): 5–43.

Block, Ned. "On a Confusion about a Function of Consciousness," *Behavioral and Brain Sciences* 18 (1995): 227–47.

Boyd, Richard. "How to be a Moral Realist." *Essays on Moral Realism*, ed. Geoffrey Sayre-McCord. Ithaca: Cornell University Press, 1988, (181–228).

Brandt, Richard. *A Theory of the Good and the Right*. Oxford: Oxford University Press, 1979.

Brink, David. *Moral Realism and the Foundations of Ethics*. Cambridge: Cambridge University Press, 1989.

Burnyeat, Myles. "Aristotle on Understanding Knowledge." *Aristotle on Science: The Posterior Analytics*, ed. Enrico Berti. Padua, Italy: Antenore, 1981, (97–139).

Chalmers, David. "Why Isn't There More Progress in Philosophy?", *Philosophy* 90 (2014): 3–31. Reprinted in Ted Honderich, ed. 2015. *Philosophers of Our Times*. Oxford: Oxford University Press: 347–70.

Cuneo, Terence. *The Normative Web*. Oxford: Oxford University Press, 2007.

Deleuze, Gilles, and Félix Guattari. *What Is Philosophy?* New York: Columbia University Press, 1996.

DePaul, Michael. *Balance and Refinement: Beyond Coherence Methods of Moral Inquiry*. Abingdon: Routledge, 1993.

DePaul, Michael. "Why Bother with Reflective Equilibrium?" *Rethinking Intuition*, eds. Michael Depaul and William Ramsey. Lanham: Rowman & Littlefield Publishers, Inc., 1998, (293–309).

Dietrich, Eric. "There Is No Progress in Philosophy," *Essays in Philosophy* 12 (2010): 329–44.

Elga, Adam. "Reflection and Disagreement," *Noûs* 41 (2007): 479–502.

Elgin, Catherine. *Considered Judgment*. Princeton: Princeton University Press, 1996.

Enoch, David. *Taking Morality Seriously*. Oxford: Oxford University Press, 2011.

Ewing, A.C. *The Definition of Good*. London: Macmillan, 1947.

[42] We are very grateful to Selim Berker, Jamie Dreier, Anandi Hattiangadi, Dan Hausman, Dan Korman, Farid Masrour, Tristram McPherson, Mike Ridge, Mike Titelbaum, Kenny Walden, and René van Wouderberg for providing quite generous feedback. Thanks also to participants in a 2015 UW-Madison seminar on understanding, and to participants in a Harvard seminar in 2017 and a UW-Madison seminar in 2018, both of which focused on a longer manuscript of which this article is a part. We're also very pleased to be able to acknowledge the helpful feedback we received from audiences at Brown University, the University of Iowa, Stockholm University, and participants in the 2017 German Society of Philosophy conference, the "How to Do Philosophy" conference in Hong Kong, and the LOGOS conference at University of Barcelona.

Feldman, Richard. "Reasonable Religious Disagreements." *Philosophers without Gods*. ed. Louise Antony. Oxford: Oxford University Press, 2007.
Finlay, Stephen. *Confusion of Tongues: A Theory of Normative Language*. Oxford: Oxford University Press, 2014.
Gewirth, Alan. *Reason and Morality*. Chicago: University of Chicago Press, 1978.
Gibbard, Allan. *Thinking How to Live*. Cambridge: Harvard University Press, 2003.
Goodman, Nelson. *Fact, Fiction, and Forecast*. Cambridge: Harvard University Press, 1955.
Gutting, Gary. *What Philosophers Know*. Cambridge: Cambridge University Press, 2009.
Gutting, Gary. "*Philosophical Progress*." *Oxford Handbook of Philosophical Methodology*, eds. Herman Cappelen, Tamar Szabo Gendler and John Hawthorne. Oxford: Oxford University Press, 2014.
Hare, R. M. *The Language of Morals*. Oxford: Oxford University Press, 1954.
Harman, Gilbert. *The Nature of Morality*. Oxford: Oxford University Press, 1977.
Hilbert, David "Mathematical Problems," *Bulletin of the American Mathematical Society* 8 (1902): 437–79.
Horwich, Paul *Wittgenstein's Metaphilosophy*. Oxford: Oxford University Press, 2012.
Huemer, Michael. *Ethical Intuitionism*. Basingstoke: Palgrave, 2005.
Hume, David. *An Enquiry Concerning the Principles of Morals*. 1751.
Jackson, Frank. *From Metaphysics to Ethics: A Defense of Conceptual Analysis*. Oxford: Oxford University Press, 1998.
Jackson, Frank, and Philip Pettit. "Moral Functionalism and Moral Motivation," *The Philosophical Quarterly* 45 (1995): 20–40.
Joyce, Richard. *The Myth of Morality*. Cambridge: Cambridge University Press, 2001.
Keefe, Rosanna. *Theories of Vagueness*. Cambridge: Cambridge University Press, 2000.
Korsgaard, Christine. *The Sources of Normativity*. Cambridge: Harvard University Press, 1996.
Kriegel, Uriah. "The Epistemological Challenge for Revisionary Metaphysics," *Philosophers' Imprint* 13 (2013): 1–30.
Kvanvig, Jonathan. *The Value of Knowledge and the Pursuit of Understanding*. Cambridge: Cambridge University Press, 2003.
Lewis, David *Philosophical Papers*, volume 1. Oxford: Oxford University Press, 1983.
Lewis, David. *On the Plurality of Worlds*. Oxford: Basil Blackwell, 1986.
Lewis, David, and Stephanie Lewis. "Holes," *Australasian Journal of Philosophy* 48 (1970): 206–12.
Mackie, J.L. *Ethics: Inventing Right and Wrong*. London: Penguin Books, 1977.
McGinn, Colin. *Problems in Philosophy: The Limits of Inquiry*. Oxford: Basil Blackwell, 1993.
Moore, G. E. *Principia Ethica*. Cambridge: Cambridge University Press, 1903.
Nagel, Thomas. *The View from Nowhere*. Oxford: Oxford University Press, 1986.
Olson, Jonas. *Moral Error Theory*. Oxford: Oxford University Press, 2014.
Papineau, David. "Is Philosophy Simply Harder than Science?" 2017. *Times Literary Supplement Online (June 1)*: http://www.the-tls.co.uk/articles/public/philosophy-simply-harder-science/.
Paul, L. A. "Metaphysics as Modeling—The Handmaiden's Tale," *Philosophical Studies* 160 (2012): 1–29.
Pritchard, D. "Knowledge and Understanding." *The Nature and Value of Knowledge: Three Investigations*, eds. Alan Millar and Adrian Haddock. Oxford: Oxford University Press, 2010.
Pritchard, D. "Seeing it for Oneself: Perceptual Knowledge, Understanding, and Intellectual Autonomy," *Episteme* 13 (2016): 29–42.
Putnam, Hilary. "Brains and Behavior." *Analytical Philosophy: Second Series*. ed. Ronald J. Butler. Blackwell, 1963.
Rawls, John. *A Theory of Justice*. Cambridge: Harvard University Press, 1971.
Rawls, John. "The Independence of Moral Theory," *Proceedings and Addresses of the American Philosophical Association* 47 (1974): 5–22.
Rawls, John. "Kantian Constructivism in Moral Theory," *Journal of Philosophy* 77 (1980): 515–72.
Rayo, Agustin. *The Construction of Logical Space*. Oxford: Oxford University Press, 2013.

Russell, Bertrand. *The Problems of Philosophy*. London: Williams and Norgate, 1912.
Sayre-McCord, Geoffrey. "Coherentist Epistemology and Moral Theory." *Moral Knowledge?* eds. Walter Sinnott-Armstrong and Mark Timmons. Oxford: Oxford University Press, 1996, (137–89).
Scanlon, Thomas. "Rawls on Justification." *The Cambridge Companion to Rawls*, ed. Samuel Freeman. Cambridge: Cambridge University Press, 2002, (139–67).
Schroeder, Mark. *Slaves of the Passions*. Oxford: Oxford University Press, 2007.
Searle, John. "Minds, Brains, and Programs," *Behavioral and Brain Sciences* 3 (1980): 417–57.
Shafer-Landau, Russ. *Moral Realism: A Defense*. Oxford: Oxford University Press, 2003.
Sider, Theodore. *Writing the Book of the World*. Oxford: Oxford University Press, 2011.
Sider, Theodore. "Against Parthood." *Oxford Studies in Metaphysics*, volume 8, eds. Karen Bennett and Dean W. Zimmerman. Oxford: Oxford University Press, 2013, (237–93).
Sidgwick, Henry. *Methods of Ethics*, 7th ed. London: MacMillan, 1907.
Sober, Elliott. *Ockham's Razors: A User's Manual*. Cambridge: Cambridge University Press, 2015.
Solomon, Miriam. *Social Empiricism*. Cambridge: MIT Press, 2001.
Stoljar, D. *Philosophical Progress: In Defense of a Reasonable Optimism*. Oxford: Oxford University Press, 2017.
Street, Sharon. "Constructivism about Reasons." *Oxford Studies in Metaethics*, volume 3, ed. Russ Shafer-Landau. Oxford: Oxford University Press, 2008, (207–46).
Tersman, Folke. "Recent Work on Reflective Equilibrium and Method in Ethics," *Philosophy Compass* 13 (2018): 1–10.
van, Inwagen, Peter. *The Problem of Evil*. Oxford: Oxford University Press, 2006.
Walden, Kenneth. "In Defense of Reflective Equilibrium," *Philosophical Studies* 166 (2013): 243–56.
Weatherson, Brian. "What Good Are Counterexamples?," *Philosophical Studies* 115 (2003): 1–31.
Wedgwood, Ralph. *The Nature of Normativity*. Oxford: Oxford University Press, 2007.
Wiggins, David. *Sameness and Substance Renewed*. Oxford: Oxford University Press, 2001.
Williams, Bernard. *Morality: An Introduction to Ethics*. Cambridge: Cambridge University Press, 1972/1993.
Wilson, Jessica. "Three Dogmas of Metaphysical Methodology." *Philosophical Methodology: The Armchair or the Laboratory?*, ed. Matthew C. Haug. Abingdon: Routledge, 2013, (145–65).
Zagzebski, Linda. "Recovering Understanding." *Knowledge, Truth, and Duty: Essays on Epistemic Justification, Responsibility, and Virtue*, ed. Matthias Steup. Oxford: Oxford University Press, 2001, (235–51).