Relativism, Coherence,
and the Problems of Philosophy[*]

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The eventual topic of this paper is the perhaps grandiose question of whether we have any reason to think that philosophical problems can be solved. Philosophy has been around for quite some time, and its record is cause for pessimism: it is not, exactly, that there are *no* established results, but that what results there are, are negative (such-and-such is false, or won't work), or conditional (as Ernest Nagel used to say, "If we had ham, and if we had eggs, then we'd have ham and eggs").[1] I hope in what follows first of all to explain the record. My explanation will naturally suggest a way of turning over a new leaf, and I will wrap up the paper by laying out that proposal and critically assessing its prospects.

However, the approach to my topic will have to be roundabout. Along the way, I will detour to consider how the problems of philosophy can be

[1]Reported by Hilary Putnam (1975, p. 260).

identified, and what makes them philosophically interesting. And I will begin at quite some distance from my destination, with the uneven intellectual respectability of relativism among academics.

1

The degree to which the acceptability of relativism varies between academic disciplines is a familiar but still striking fact. In, for instance, literary studies and cultural anthropology—including, importantly, science studies and sociology of knowledge—relativism, among the several competing views of which it is one, has a monopoly on intellectual respectability. In the so-called hard sciences, physics, for example, relativism is an affront and an object of contempt.[2] Philosophy is an interestingly mixed case. Some philosophers are relativists, though most are not. Those philosophers who believe relativism false for the most part still take it seriously, to one or another degree. Sometimes it's regarded as a threat, a dangerous (thus live) doctrine that needs to be refuted, and from them one sometimes hears the phrase, "the specter of relativism." And within the professional literature, there is steady discussion of relativism's merits, shortcomings and consequences.[3]

I need to say what I mean by 'relativism', and to do so without flying in the face of Aristotle's advice not to attempt more precision than a subject matter will allow. We are looking for a common denominator that can be examined across disciplines, thus, a cluster of connected, roughly marked out claims and attitudes. The most important of these is the idea that truth in some domain, or perhaps all truth, is *truth-for*—claims are not true *simpliciter*, but true-for-someone, or true-for-something. Truth may be relativized to particular persons, or groups of persons, or societies, or cultures, or social practices (for instance, physics as it is practiced at a particular time), or even interests of one kind or another. By way of illustration, Thomas Laqueur's *Making Sex* conveys what seems to be the outlandish

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[2]So much so that when Bruno Latour was up for a stint at Princeton's Institute for Advanced Studies, the scientists revolted and the stint disappeared. See Berreby, 1994, p. 24.

[3]For a dated but respectable anthology, see Meiland and Krausz, 1992. The situation is complicated by a further phenomenon: that philosophers who insist that relativism is true often do not allow that opinion to be reflected in their own argumentative practice. Philosophers who not only say that relativism is true, but *write* as though it were true, can find themselves parting ways with the profession. For example, not long after his *Philosophy and the Mirror of Nature* (1979), Richard Rorty moved institutional locations, from a philosophy department to the literature departments where he remained until his death.

suggestion that, until the eighteenth century, there was only one biological sex, but that thereafter there were two, and this without any biological alteration to effect the transition.[4] Biological facts (or 'facts') are being taken to be true, not *tout court*, but *for* the scientific, legal and popular cultures that accept them; a writer without relativist commitments would put the point rather differently, and simply say that it used to be thought that there was only one biological sex, but that now it is thought (or, perhaps, known) that there are two. Other predicates, covering classes of items not thought to be strictly truth-evaluable, may also be understood as relativized: 'good,' 'beautiful,' 'appropriately a member of the canon,' and so on.

Relativism is signalled by the attitude that many apparently logical conflicts are not in fact that at all. If 'right,' properly understood, has the force of 'right-for-me' when uttered by me, and 'right-for-him' when uttered by him, disagreement between the two of us over whether a particular proposed action is right does not show that either of us is *mistaken*; what is wrong-for-me may nonetheless be right-for-him. Disagreement in this case turns out to be practical rather than logical, and to be resolved not by determining who is actually correct, but by practical means: rhetoric, negotiation, or force. If disputes over what belongs in the canon are not, as they might seem on the surface, defenses of conflicting aesthetic judgments, all but one of which must, as a matter of logic, be wrong, then what belongs in the canon is a political question, to be resolved by political means. Where the conflicts are intellectual, rather than practical, a natural (although, as it is often pointed out, not logically entailed) concomitant of relativism is polite coexistence. For instance, although among philosophers it is taken for granted that defending an interpretation of a philosophical text involves arguing against competing interpretations, in literary studies, this is generally—occasional though notable exceptions notwithstanding—taken to be bad form. Relativism is a posture naturally adopted toward domains characterized by persisting disagreement. Since relativism explains why conflicts can't be settled by conclusive argument, the move from unresolved disagreement to relativism can be charitably interpreted as an attempt at inference to the best explanation.

Although it's often talked about that way, relativism is not just a fancy name for "Anything goes." Consider a form of relativism that is obviously true: the relativity of meaning to language. There is nothing that "polvo" *just* means, in God's eyes, as it were; rather, it means one thing (powder) in Spanish, and another (octopus) in Portuguese. By the same token "polvo"

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[4]Laqueur, 1990.

does not mean *just anything* in either language. Unlike 'anything goes', a relativism picks out a *basis* (here, the languages) that plays a constitutive role in determining the status of the relativized items. (In this example, the semantics of Spanish make "polvo" mean what it means in Spanish.) Relativism can seem like a very convenient doctrine when it exempts one from arguing with people one doesn't want to be arguing with, while still allowing one the comforts of being right: right, that is, relative to the basis.

2

Academics are members of guilds that make things with their hands. (If this way of thinking is difficult to adopt, that is probably because the handcrafted objects are often intangible; let me prevail upon you to ignore that difference for the moment.) Rather than thinking of the different academic disciplines as the bureaucratic reflection of a taxonomy of knowledge, and employment by one department of a university rather than another, simply the indication of having learned these bits of knowledge rather than those, look at the different fields as *crafts*, as $\tau\acute{\epsilon}\chi\nu\alpha\iota$.[5] Outside the university, the practice of apprenticeship to a master craftsman has largely receded and become a curious archaism. But within the university, students are transformed into art historians, philosophers, molecular biologists, and so on, through lengthy apprenticeships lasting anywhere from four to fourteen years. More important, for present purposes, than the information they memorize are the skills they acquire: the apprenticeship teaches not only knowing *that* but knowing *how*.[6]

As apprentices, philosophers learn to construct philosophical positions, philosophical arguments, and philosophy papers. They also learn to construct philosophical readings of philosophical texts—a skill not to be confused with the very different skill taught in neighboring departments, that of developing literary readings of literary texts, and of writing papers and books that advance those readings. Theoretical computer scientists learn

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[5]To be sure, the mapping between crafts and institutional frameworks is not always one-to-one. Some historians are social scientists, and some are humanists, despite being housed in the same departments; and there are many departments in which some variation on this sort of sharing arrangement is to be found. For a history of the way in which such a condominium broke down in German philosophy departments not that long ago, see Kusch, 1995. For some discussion of the craft aspects of the sciences, see Ravetz, 1979, esp. pp. 71, 117f, and ch. 3, *passim*.

[6]For the locus classicus of this distinction, see Ryle, 1984, ch. 2. For a comparative study of a few of the guilds, see Becher, 1989.

to build algorithms and proofs, to turn their results into talks and write them up in papers. Laboratory scientists learn to design, assemble and deploy experimental apparatus. In an age of mass production, these are craftsmen turning out one-of-a-kind items, all of which, even the mediocre samples, take considerable skill to fabricate. Each craft teaches its apprentices to *make* things, and the craftsmen, like carpenters or metalworkers, or, some time back, shoemakers and bridlemakers, have the knowledge—the knowledge-*how*—that comes of training and experience in making things of those kinds.[7]

Alasdair MacIntyre once suggested that emotivism—the view that putative moral judgments are merely the expression of one's feelings—was a response to and representation of the professional practice to which the emotivists had been exposed as students.[8] The related hypothesis I now wish to entertain is that the different academic disciplines' takes on relativism are to a large extent expressions of the craft experiences of the craftsmen in the respective disciplines. If the craftsmen whose skill is constructing readings of literary texts take relativism for granted, and find it incredible that any intelligent person should think otherwise, that is because they know—

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[7]That said, it is important to register the especially tight entanglement and mutual dependence of knowledge-that and knowledge-how in the academic disciplines. Because what is being produced is (at least in theory) knowledge, and because knowledge is produced largely by deploying other knowledge, a large part of academic knowledge-how depends on having available an appropriate stock of knowledge-that. E.g., one proves a theorem using other theorems, and knowing how to assemble a proof is in part a matter of having the necessary theorems at one's fingertips.

The suggestion that philosophy is a craft regularly provokes resistance, on the grounds that crafts have independently specified products, which are consumed by clients who are not themselves the craftsmen (e.g., shoemakers make shoes which are worn by customers who are not themselves shoemakers); but it is the philosophers who get to decide if what they are doing is any good, and they do not have a product that is assessible by clients who are not themselves philosophers. My sense is that one of the important motivations for this objection is the idea that crafts are teleologically structured: as Mill, 1967–1989, vol. VIII, p. 949, puts it: "Every art has one first principle, or general major premise, not borrowed from science; that which enunciates the object aimed at, and affirms it to be a desirable object."

In fact, however, the standards for just about any healthy craft are set *within* the craft: it is not the users who decide what a good shoe is, but the fashion designers. And this fact is inextricably intertwined with the nonteleological structure of healthy crafts: computer science, for example, may have a defining goal, that of making better computers, and coming to a better understanding of computation, but it is only verbally, and not substantively, an organizing constraint for the craft. The reason it is such an exciting field to be in is that a cutting-edge computer scientist devotes much of his intellectual energy to figuring out what computers, and computation, *will be next.*

[8]MacIntyre, 1997, pp. 11–18.

their *hands* know—that relativism is true of what they do: that several incompatible readings of the same text can all be satisfactory. If theoretical computer scientists almost always find relativism strictly incredible, it is because they know, from working with their hands, that it is not true of what *they* do: a different cultural background, for instance, will not make the algorithm run any faster. The knowledge of experienced craftsmen, however philosophically unsophisticated its articulation, should be taken with utmost seriousness; the bottom line is that, other things not being too unequal, the person in the best position to know how things work is the person who makes them and makes them work.[9] If the craftsmen think that this is the way the things they build work, then, unless you have good reason to think otherwise, your best policy is to believe them. Philosophy, as everyone knows, started off with Socrates debunking the knowledge of craftsmen, and I'm willing to tender a belated apology on behalf of the discipline. Socrates was making a mistake; they knew what they were doing, and he didn't.

This is not to say that craft knowledge is infallible, and the deliverances of the craftsmen incorrigible. Crafts can be swept by fads, both stylistic and intellectual, and when this happens, the craftsman's pronouncements may be merely expressions of the fad, rather than of the practical knowledge stored up in his hands. The craft may be simply unreliable, like astrology, and we may discount the value of craft knowledge for that reason. Like everyone else, craftsmen are subject to cognitive illusions; the history of the Rorschach is a well-known example.[10] The practical self-understanding of the craft's practitioners may be misguided; there is always room for an argument that the craftsmen do not really understand, or are confused about, what they are doing. And—a related point—we need to distinguish between expressions of what we could call the craftsman's operational knowledge, and that knowledge itself; taking such knowledge seriously does not always mean taking its expressions at face value.[11] That is, I am not suggesting that we

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[9]This point was brought home to me by Hearne, 1987. Her arguments against laboratory animal psychologists turn on the objects of the respective crafts: laboratory psychologists know how to produce experiments that in turn produce publishable results, while animal trainers produce working animals.

[10]See Nisbett and Ross, 1980, pp. 94–97, and for a more recent and more popular account, Dawes, 1994, pp. 146–154.

[11]Suppose, to take a certainly oversimplified view as an illustration, that literary interpretations of texts are there in order to provide ways of appreciating those texts that enrich the experience of reading them. If they are treated as successes when they do so, then practitioners will learn—as a lesson of professional life—that there is always room for one more reading that makes an encounter with a familiar text surprising and newly enjoyable, and that the new reading need not preclude other readings doing the same job.

should fetishize craft practitioners' humanly fallible self-understanding. The point is, rather, this: when we find a view (or pattern of views) about relativism that is characteristic of an academic craft, we should look for features of the practice that explain it; and we should be prepared to find—without ruling out other explanations in advance[12]—that those features amount to relativism's being true of that practice.[13]

Relativism is sometimes characterized as the doctrine that nothing is just plain true: it is true-for-me, or true-for-you, or true-for-something-else. And an always-ready reply to relativism has been to ask whether *relativism* is true.[14] (Or is it, rather, only true-for-you?) We're now in a position to give the proper answer to that question. Relativism is true, for and of those academic disciplines that take it to be. If, in literary studies, it is generally taken for granted that relativism is true, then it *is* true...for literary studies. ("For": when the question of relativism is raised within the field, it is properly answered in the affirmative.) If, among theoretical physicists,

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The practical awareness of these incentives will likely be expressed as a predisposition to relativism about the interpretations of literary texts.

However, notice that literary theory plays a large role in the discipline. If I am right, the function of theory is, in practice, to serve readings that enrich encounters with literary texts. That is, theories are articulated and advanced not because they are true, or because there are good arguments for them, but because they make available new and satisfying (or challenging, or whatever) experiences of literary texts. (Compare Thomas Mann's closely related remarks on Wagner (1985, p. 120): "To the artist, new experiences of 'truth' mean new stimuli to play, new expressive possibilites—nothing more. He believes in them...only to the degree that is necessary in order to...make the deepest possible impression with them.") However, practitioners of the discipline need not be aware of this, and they may look for explanations of their relativism, arrived at as an expression of craft knowledge, to theories they have produced or come by in these ways.

[12]For instance, that novices enter a discipline because they already find its attitudes towards relativism congenial, and so produce and perpetuate a unanimity that may have little to do with the discipline's underlying features.

Notice that there are disciplines in which relativism is now the dominant view but at some previous time was not (or the other way around). Our argument suggests looking to see if the practice of the discipline has changed, in a way that made relativism true of the discipline when it was believed, and untrue when it was not. (For this point, and the clarification in the next note, I'm grateful to Jon Bendor.)

[13]Bear in mind that disciplines and their practices should not be confused with objects of study. Philosophers and literary critics will give readings of the very same texts, and political science (which is pretty uniformly anti-relativist), sociology and anthropology (which are largely relativist) often study very much the same things. One should not move too quickly from expecting that a discipline's relativism is to be explained by its practice to expecting that it is to be explained by the features of the objects that the discipline investigates.

[14]See, e.g., Putnam, 1981, p. 119. Such responses go back as far as the *Theaetetus*; for a recent reconstruction of Plato's arguments, see Burnyeat, 1990.

relativism seems obviously absurd, we should conclude that relativism is false... of theoretical physics. ("Of": relativism is not a good characterization of the methods appropriate in the field, and an appropriate account of truth in physics is unlikely to end up casting it as relativized truth.)

But our trust in craft knowledge should not extend beyond the craft experience of the craftsmen. If practitioners of literary studies are relativists about everything, and so also relativists about philosophy, we need not infer from this that relativism is true of philosophy. It is not surprising that craftsmen understand whatever they encounter through the experience of their hands, and that they are likely to generalize the lessons of experience in a way that experience does not warrant. If sociologists of knowledge, studying physics, take it for granted that some form of relativism is true of physics, that suggests very strongly that relativism is true of sociology of knowledge.[15] The objects made by sociologists of knowledge are not results in physics, but papers publishable in their own professional journals; their knowledge-*how* is of the study of physics, not of physics. (There may also be arguments or data—knowledge-*that*—supporting the claim that relativism is true of physics; these would need to be considered on their own merits, and I do not mean to dismiss them ahead of time.)

Is relativism true of this very answer? I.e., is the answer only true-for-us, where 'us' registers evaluation from the standpoint of a particular academic craft? Presumably that depends on the discipline, and as this answer is being advanced as a philosophical claim, and because we do not at this point in the argument have a fix on the status of relativism in philosophy,

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[15]Strongly but, once again, not conclusively. One further alternative explanation is worth mentioning. The experience of the craft practitioner may be that adopting a relativist posture toward the material produces better results, such as more sophisticated and illuminating sociology of knowledge papers, even if relativism is not plausibly true of the material. Compare the practice of clinical psychology, where practioners accept, for the purposes of therapy, the testimony of their patients. Trying to argue someone out of his conspiracy theory or his memories of trauma is counterproductive; taking the memories or conspiracy theory as a given is more likely to improve the patient's life—or, at any rate, the clincian's practice. But the patient's beliefs are presumably not true relative to the patient; if they're true, they're simply true, and if false, they are simply false. A rather vivid illustration is the Harvard Medical School psychiatry professor who gained a brief notoriety for extending this practice of accepting a patient's testimony to persons who believed they had been abducted by UFOs. (Mack, 1997; however, there may be other factors at work in his case: his claims that the "reality status" of his patients' narratives is not his concern alternate with arguments to the effect, roughly, that so many eyewitnesses can't all be wrong.) If there are no UFOs, a claim of abduction is not true-relative-to-the-patient's-testimony; it is simply not true, even if accepting the claim makes it more likely that the therapy will have a successful outcome.

it is premature to say. However, I do want to temper the worry that the suggestion I've just put on the plate isn't really an option. Why isn't the suggestion that relativism being true *for* a discipline typically amounts to it being true *of* a discipline just a fudge?[16]

Foot has made the helpful point that the easy formal refutations of relativism cannot be right, because there are domains—fashion, for example—of which relativism is clearly true, easy formal refutations notwithstanding.[17] What counts as physical beauty, or snappy dressing, varies with time and location, and depends on what the local standards of beauty and fashion happen to be. Relativism is not true or false—it is true of some domains (like fashion), and false of others. The point is well taken: in thinking about relativism, we need to shift our attention to the substantive features of the subject areas that make the position seem attractive or otherwise.

Recall that I introduced relativism as a loosely characterized cluster of views, a position that it's possible to examine across disciplines. One philosophers' vice—apparently, ever since the very beginning of philosophy!— is that of tightening up the cluster into a position that is just plain incoherent, or implausible, or anyway a view you would need a further reason to advance, over and above the original motivations for relativism. Thus, in the *Theatetus*, relativism is made out as a position which guarantees that you can't ever be mistaken. (Protagoras is being portrayed as the Jacques Derrida or mid-career Stanley Fish of ancient Greece.) Refuting *that* is not refuting relativism: relativism is obviously true, as we earlier observed, of the semantics of languages, but many, many people are wrong about what some of the words they use mean, and I'm even open to being convinced that there are expressions about whose meaning *everyone* is mistaken. Nothing is gained—not insight, and not clarity—by tightening up the view into an incoherent position, and saddling it with extraneous commitments. (So, don't reply to Foot: *that's* not relativism; *real* relativism is about *truth*, not fashion, and the thesis is required to apply exceptionlessly and uniformly.) The construction I'm putting on relativism is in my view the best way to

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[16]If you think it's a fudge, you're likely to think the view is inconsistent. Suppose that a physicist agrees that relativism is true of literary studies; isn't relativism thereby true-for-the-physicist; but haven't I claimed that, for the physicist, relativism is false? And anyway, don't relativist claims have to top out, sooner or later, in claims that are to be read as just plain true or false?

Whether or not relativism can go all the way up—whether, eventually, one will just have to insist that one's relativist claims are nonrelatively true—should not be mistaken for an easy question. For an exploration of the possibility that it can, see Nozick, 2001, ch. 1.

[17]Foot, 1992.

make sense of it; there's not a lot of point in insisting that that it's not *real* relativism, if what one is going to insist is real relativism is an unmotivated and incoherent position.

3

The suggestion that disciplinary attitudes towards relativism are often indicators of the truth of relativism for a discipline can be turned into a rubber-and-glue retort in a game of cross-disciplinary name-calling. (As in the playground incantation: "Whatever you say/ Is rubber and glue;/ It bounces off me,/ And sticks to you!") But the point here is not name-calling. The striking fact with which I began, that the academic disciplines have differing takes on relativism, turns out to be a guide to investigating the practices of the various disciplines. I want now to pursue that point as regards philosophy, which, I remarked earlier, is a mixed case. If philosophers are, collectively, of two minds as to the intellectual merits of relativism, the argument so far suggests that we should look to their craft experience for an explanation.[18]

I will in the end claim that—perhaps contrary to one's initial expectations—the conflicting tendencies are to be traced back to a single source. For now, however, notice how surprising it should be that there *are* conflicting tendencies, if only because, at first glance, there are reasons galore in the experience of the practitioner of philosophy for full-fledged relativism. As Hume very nicely put it:

> There is nothing which is not the subject of debate, and in which men of learning are not of contrary opinions. The most trivial question escapes not our controversy, and in the most momentous we are not able to give any certain decision. Disputes are multiplied, as if everything was uncertain; and these disputes are managed with the greatest warmth, as if every thing was certain. ...and no man needs ever despair of gaining proselytes to the most extravagant hypothesis, who has art enough to represent it in any favourable colours.[19]

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[18]Philosophy has not always been an *academic* craft, however (see, e.g., Nussbaum, 1994, which makes Hellenistic philosophy out to be a sort of institutional ancestor of the Esalen Institute), and many of those now generally accepted as important philosophers (such as Nietzsche and Kierkegaard) were professional outsiders during their own lifetimes.

[19]Hume, 1888/1978, p. xiv.

Disputes in philosophy can seem interminable, and we have seen that a natural explanation of disagreement is relativism: here, that philosophical theses are true or false only relative to something that varies with the disputant. But if the leaning toward relativism seems easy to account for, why don't all, or almost all, philosophers lean all the way? Why isn't relativism the default?

One of the experiences characteristic of philosophizing is realizing that, in order to solve the philosophical problem on which you are working, there is another problem you will have to solve first. Getting clear about the objectivity of value depends, you may decide, on making out an analogy between values and colors; but getting that analogy into a position where it can settle questions of objectivity turns out, you find, to require you to have settled already familiar problems having to do with the nature of counterfactual conditionals and dispositions, as well as puzzles about qualia or 'raw feels', supervenience and reductionism, and so on. These problems in turn prove to presuppose solutions to further problems. So how much of philosophy does a single philosophical problem involve?

Here's a way to think about trying to find out. Consider the operation that takes you from a philosophical problem to the philosophical problems at one remove that you would have to have solved in order to be able to solve the initial problem; let's temporarily call this operation PROBLEMS-PRESUPPOSED. (I will in due course take up the respects in which this is a simplified approximation.) Suppose you have some initial set of philosophical problems. Imagine applying PROBLEMS-PRESUPPOSED to the problems in your initial set, and then adding the new philosophical problems you have obtained to that initial set; then applying PROBLEMS-PRESUPPOSED to *this* set,... and continuing to repeat this procedure until applying PROBLEMS-PRESUPPOSED generates no new problems to add. The set of philosophical problems you have ended up with is the *closure* of your initial set under the operation PROBLEMS-PRESUPPOSED.[20]

Philosophy and the sciences progress in different directions. The sciences progress by moving *forward*, from one solved problem to the next, building up a stockpile of results that, in favorable circumstances, can be systematized into a general account of the domain of the science. Philosophy, however, progresses by moving *backwards*: not by solving, or, at any rate, not by *simply* solving problems, but by uncovering the problems hidden in, or under, or behind, the problems one was trying to solve, and by

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[20]There is no suggestion here that the closure of the initial set is finite. For purposes of comparison, the closure of the set { 2,3 } under multiplication is not a finite set.

taking them up in turn. This fact is occasionally responsible for startling contrasts. The question "What is the world made of?" is shared by philosophy and physics; both can claim Thales as their founder. Physics has moved forward, establishing facts and theories, and arrived at one of its current answers: space-time and elementary particles, or an assignment of values of fundamental quantities to space-time points, or strings and branes. Philosophy moves backwards: to questions of justification ("How could we know?"), which in turn raise questions of meaning ("What can we refer to?"), and ultimately to answers, when philosophy produces them, that are radically different from those of the natural sciences. One fairly recent philosophers' answer to Thales' question was *sense-data*: a class of (alleged) mental objects, a typical instance of which might be a red patch in one's visual field.[21] Because the natural motion of philosophy is from problems to logically prior problems, the characteristic operation of philosophy is the move from one problem to the further problem that would have to be solved first. By way of emphasizing this, I will abandon the temporary label PROBLEMS-PRESUPPOSED, and refer to this operation as the characteristic operation of philosophy, or, more tersely, *the characteristic operation*.

The procedure I have just described, for determining the closure of a set of philosophical problems under the characteristic operation, may seem to be of no practical interest. It's not as though, for instance, you could use it to survey your philosophical task before actually going ahead with it; only by working your way through some philosophical problem on your agenda will you be able to determine which solutions to further problems it requires. And since you can't perform the procedure ahead of performing the tasks at hand, it seems to follow that you can't use the procedure to survey the tasks in advance (perhaps in order to come up with an estimate of the time they will take). However, despite our inability to execute the procedure faster than we can work our way through philosophical problems, we are nonetheless well-placed to say just what the closures under the characteristic operation of given sets of philosophical problems are. That's because the history of philosophy has done our homework for us.

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[21]Many of the philosophers who produced this answer were physics-worshippers, and would not have dreamed of denying that the world was made of space-time and elementary particles. This shows that the questions asked by philosophers and by non-philosophers, even if verbally identical, are in fact very different questions, and perhaps bears out to some extent an opinion of the philosophers who produced the just-mentioned answer: the meaning *is* the method of verification.

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Every so often, philosophy reboots. Frustrated by apparent deadlock in the field, a revolutionary, or a small band of revolutionaries, hits upon a new problem, the solution to which, it is announced, will displace the old and unanswerable questions and either put philosophy in order or do away with it entirely. We are still living off the last of the momentum generated by the logical positivist revolution, whose question "What does it mean?" was supposed to dissolve the problems on the inherited list. And we may now be witnessing an attempt at another such a revolution, in what is starting to be called experimental philosophy, a research program launched by the question, "What, as a matter of empirical fact, explains the intuitions of the general population on matters philosophical?" Before positivism, there was (skipping a few steps) Kant, whose question was "What are the limits of reason?" And before Kant, Descartes: "What method will ensure certainty and knowledge?" Eventually, we come back to Socrates and his question (meant to displace the inquiries of the natural philosophers), "What is F?" where F was usually one or another virtue. (Of course, the history of philosophy is no less resistant to schematization than any other kind of history, and I am not suggesting that my description fits neatly. I do, however, think that it is true enough for present purposes.)

But in each cycle, it turned out that solving the new problem required having first solved others, and these others required having solved still others in turn.[22] In very short order (well under a century, this last time around), the original set of problems was generated from the new problem: closure of the small set of new problems under the characteristic operation had reproduced the original set. I take this to be a deep fact about philosophy: *the set of philosophical problems is the closure of any of its subsets under the characteristic operation.* Consequently, the set of philosophical problems is stable.

That is a bold claim, and while I mean to stick with it, it will bear a certain amount of qualification. First of all, by 'any subset', I don't, of course, mean the empty set. I am also willing to allow that there may be exceptions to the 'any subset' part of the claim: problems acknowledged

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[22]This is a good occasion to ask the reader to bear in mind both that logical and temporal priority relations are different things, and that, at the early stages of these cycles, logical relations tend to be understood as imposing a temporal structure on one's agenda: one problem's presupposing the solution to another gets treated as entailing that the presupposed solution has to be produced earlier. (For a remark that suggests why these tend to be conflated, see Florka, 2001, p. 19 n. 20.) More on this in note 36.

to be philosophical that do not generate the entire philosophical problem space in this way because they are too trivial and tangential to the main interests of the field.[23] There's another class of exceptions, problems that are epiphenomena of the philosophical idiom of a given period: artifacts of a way of speaking or of a canonical notation or of a technical apparatus that do not survive its demise. I'll return to this latter class of exceptions in a moment.

It might be objected that the reconstruction of the philosophical problem space in a given historical cycle does not simply reproduce the initial set of problems: a new problem, or clutch of problems, has been added to the original list. This objection is mistaken both in its letter and its spirit. A problem used to restart philosophy has normally made prior appearances, albeit typically with much less emphasis. (The Vienna Circle were not the first to ask themselves, how would you tell if such-and-such were true? Or again, John Stuart Mill insistently demanded a psychological explanation for philosophical intuitions.) And because the new, or newly emphasized, problems were in fact necessary for solving the problems on the previous philosophical agenda, whether or not that was realized at the time, then— since the full agenda is not merely the list of problems that one has, but the list completed to include those problems whose solutions are needed for solving the problems that one has—every previous cycle in philosophical history has had the full set of philosophical problems: the ones we have not noticed as well as those we have.

The stability of the problem space explains why the history of philosophy is a part of philosophy proper, and why philosophers so often treat long-dead colleagues as intellectual contemporaries. Because the problems, and the ways they are related to one another, stay fixed, previous attempts at solution can often be adapted to the current debate: witness the recent revival of Kant and of Aristotle in ethics. For the same reason, even when the solutions of the past cannot be adapted to the needs of the present, they provide an illuminating opportunity to rethink our own problems from an alien perspective, and are useful for the sense such exercises give us of the move space we are facing ourselves.

This last claim is bound to provoke the reply that the problems are

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[23]I have had Gettierology suggested to me as an example; for an overview, see Shope, 1983, pp. 21–34. However, if the appeal to intuitions typical of Gettier-style arguments raises the question of the status of those intuitions, and if experimental philosophy, like its predecessors, will also generate the entire philosophical problem space, even a debate as esoteric as this one is not an exception to the rule. So although I'm willing to allow such exceptions, they're harder to come up with than you might at first glance expect.

not, after all, the same. I earlier allowed that there may be philosophical problems that are not generated by the above-described technique, and that do not themselves serve as a basis for generating the full set, because they are peculiar to one or another philosophical idiom, or arise only within the context of eventually obsolete technical apparatus. The reply we are considering insists that all philosophical problems belong to this class of alleged exceptions. We have been taught by Kuhn, goes the objection, that the vocabularies, techniques, and—in the bit of jargon that goes with this line—paradigms of different eras are incommensurable. To identify a problem faced by Aristotle with one that preoccupies us is falsely to read our own problems into the past; it is just bad history.[24]

The problem with this reply is that it does not match the practical experience of working philosophers: for instance, the experience of realizing that someone has been here before, marshalled the same considerations, weighed the same tradeoffs, and solved that very puzzle in his own elegant, or awkward, or perverse way. Philosophers, even in this most anti-historical of philosophical traditions, turn to history because they know that it works. Moreover, they find that it works best when readings are not anachronistic (where the objection supposes that history will be most useful when it converts the past into the present). The similar-sounding questions asked by philosophers in different periods are not merely homonymous, even though one needs to do a certain amount of squinting to see the problems as the same, because part of being philosophically competent is being able to treat the philosophizing of prior periods as attempting answers to one's present problems. Once again, craft knowledge is not infallible, but it needs to be taken very seriously. There might be an argument that would successfully show the sensibilities of the practitioners to be mistaken on this point; until such an argument is produced, what the reply teaches us about is the craft experience of the practitioners of those disciplines in which the view it expresses is second nature. What historians or sociologists of science believe about incommensurability tells us more about what it is like to do history or sociology of science than it tells us about science, or philosophy, or their respective pasts.

The stability of the problem space explains why relativism is not the

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[24]See, e.g., Rorty, 1979, pp. 262f, and compare the related complaint attributed to Dewey by Putnam, 2004, p. 31, "that philosophies arise out of time-bound reactions to specific problems faced by human beings in given cultural circumstances." The problem is perhaps especially pressing given my earlier use of Hamblin's Dictum, in service of the claim that the similar-sounding questions asked by philosophers and by scientists are merely homonymous. (Hamblin, 1958; the 'Dictum' is his "Postulate 2", at p. 162.)

default: why it is not the commonsense of professional philosophers. The answers to the problems may shift with one's intuitions, one's priorities and concerns, and with who knows what else. But underneath the field lies something very much like a mathematical object, a set with an elegant and peculiar property, that of being the closure, under the characteristic operation of philosophy, of any of its subsets. It is hard not to wax Platonist about this object, in the way that it is hard for practicing mathematicians not to end up, tacitly or explicitly, Platonists about the objects they study. The philosophical problem space exists in the heaven of the Forms, independent of human will, shifts in perspective, political commitments, and cultural background.[25] It is this sense—arrived at through the experience of one's hands—of the *hardness* of the logical relations between philosophical problems, and so of their independence of the bases of plausible relativisms, that, I am suggesting, accounts for the lack of full acceptance, within professional philosophy, of relativism. Truth cannot just be, for example, truth-for-a-given-culture, because one knows, from having hit one's head too many times against the quasi-mathematical object that underlies philosophy, that whether it is true that a particular problem *must* be on the philosophical agenda is not a culture-dependent matter.[26]

I introduced the characteristic operation as a simplified approximation, and the stability of the problem set becomes even more impressive once we consider just what that description suppresses, namely, the way the list of problems for which we immediately need solutions depends on our theoretical choices.[27] Recall the example I took from recent metaethics: in order to work up a secondary-quality account of value, you need to have available treatments of counterfactuals, qualia, and so on. But philosophers learn to navigate around problems they don't know how to deal with. Cornell moral realism is an alternative to secondary-quality approaches; it is an adapta-

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[25]Not, of course, independent in one sense: the problems are, inter alia, *about* human will, perspectives, and so on. And thus perhaps not independent in another: if I am right about the stability of the problem space, one way to answer Kant's question, "What is Man?" could be: the creature for whom *these* are the philosophical problems. That leaves open the possibility that other creatures have different philosophical problems. (I'm grateful to Gabriele Juvan for discussion here.)

[26]Michael Williams has argued that skepticism (and its mirror-image, foundationalism) presupposes 'epistemological realism'—that there are (something like) epistemological natural kinds (1996). Surprisingly, in view of the length of his treatment, Williams never gets around to arguing that there *are* no epistemological natural kinds; he evidently takes it to be obvious that there aren't any. But it shouldn't be obvious. If my claim is correct, the problems of philosophy make up something very like an epistemological natural kind. (It is not, of course, one of the kinds directly relevant to the argument Williams constructs.)

[27]I'm grateful to Edwin Mares for pressing me on this point.

tion of Richard Boyd's views in philosophy of science, and so to make it work, one must turn one's attention not to qualia, etc., but to issues in philosophy of science, such as convergence and the best explanation for it. On the one hand, what problems I am taken to at one remove can depend on what solution I am trying to work up to my present problem (which is to say that PROBLEMS-PRESUPPOSED was not the simple operation we made it out to be); on the other hand, the stability of the problem space of philosophy is established by an historical induction. Evidently the problem space is stable *despite* alternatives at the choice points: it doesn't matter which theoretical approach to a problem you take; eventually, you're going to end up with same set of problems *anyway*. That is an eye-opening fact; no wonder working philosophers feel the problems they have to work with to be inevitable.

Now that we have an explanation of philosophical resistance to relativism, we need to return to our earlier explanation of its plausibility, and consider how it can be squared with the account I have just given. But before doing that, let's pause to pocket some of the profits the enterprise has already generated.

5

What makes a problem a problem of philosophy? How can one show a problem to be philosophically interesting? Here is a passage canvassing answers to the first question, taken from a book picked more or less at random from the shelf:

> philosophy has no specific object but reworks different forms of knowledge in order to express their ultimate truth. . . it examines the great cultural models through which we apprehend the world. . . it criticizes the ordinary procedure of other disciplines. . .
> its task is. . . to wonder how a given knowledge is possible, or again to make links between the different sciences, or to think about their foundations or to clarify their language. . . philosophy [is] that which can circulate between different areas of knowledge, notably raising problems inherent in them.[28]

Although taken from a text written in French, and squarely in the French philosophical tradition, these answers, phrased slightly differently, would

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[28]Le Dœuff, 1991, pp. 76–78. The last item on the menu is her preferred alternative.

raise no eyebrows on the analytic side of the water. Here is an American philosopher addressing the same question:

> 'Philosophy,' as I am using the term, simply designates the attempt to answer questions that are especially fundamental. A question is fundamental if an array of other important questions depends on the answer to it in some important way... Thus, the question, "What is the causal relation?" is philosophical... since our understanding of how to construe or regard many important scientific truths depends on our answer to it ... So understood, philosophy includes the most fundamental questions of the various special disciplines.[29]

And finally for now, here are remarks on the subject from a thoughtfully written introductory textbook in yet a third tradition:

> Physics, theology, literary criticism and the like all ask and attempt to answer certain questions. Philosophy asks what sort of question the physicist or the theologian asks. Philosophical questions are questions about questions and hence to be called 'second-order questions'.

> Mathematicians spend their lives working out proofs; the philosopher asks: 'What is a valid proof in mathematics?' Physicists construct experiments and elaborate theories; the philosopher asks 'What is the nature of a good theory and what different types of theory are there?' Theologians produce doctrines and arguments as to the nature of the divine; the philosopher asks, 'What is an authentic doctrine and how do you test it?'[30]

The idea of philosophy as metadiscipline (whether Queen or Handmaiden of the Sciences), or as the interdisciplinary discipline, or the science of left-over problems, or of problems seen to be fundamental, doesn't tally well with the stability of the problem space. The special sciences change rapidly; to a physicist, the writings of Newton are of only historical interest, and Newton's problems are no longer live issues. If the problems of philosophy were derived from those of the special sciences, we would expect our view of

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[29]Garrett, 1996, pp. 3f.

[30]MacIntyre, 1960, pp. 12, 15; see MacIntyre, 2009, pp 165f, for a later characterization of philosophy by the same author, this one emphasizing the "fundamental existential questions about the order of things... the asking of which is one of the defining marks of human beings."

what the philosophical problems are to change along with the sciences. But, as I remarked above, all philosophers, living or dead, are pretty much contemporaries.[31] The problems that Plato saw were philosophical problems are *still* philosophical problems, and our own philosophical problems either were, or, we now see, should have been, problems for Plato. In fact, as the hands of every successful practitioner of philosophy know, these problems are philosophically interesting regardless of their connections to the special sciences.[32]

If this is right, we need a different way of saying what it is to be a philosophical problem, or (equivalently) what it is for a problem to be philosophically interesting. As it happens, we have one on hand: *A problem is philosophically interesting when it can be generated by applying the characteristic operation to another philosophical problem.* To show that a problem belongs to philosophy, I do not think it is particularly helpful to argue that it is fundamental, or a metaproblem, or that it is interdisciplinary, or that it just does not belong to any other discipline. But you *can* demonstrate

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[31]The notion of philosophy as a metadiscipline also tallies badly with the tendency of philosophy, noted above, to give what sound like answers that compete with those of the special sciences.

[32]This is perhaps embarrassing when they are problems in philosophy of science; it is often remarkable how little philosophy of science has to do with science. For a recently familiar example of philosophy of science generated by the characteristic operation, rather than by the dynamics of science, see Nagel, 1979.

Especially puzzlingly, even when work in a philosophical subspecialty does seem to be driven by work in one or another scientific discipline, over the course of a few decades technical results seem to *wash out*. An example at the requisite temporal distance might be the impact of Gödel's Theorems on the philosophy of mathematics: once a central preoccupation, they scarcely seem to matter anymore.

The claim I'm now making may have the appearance of a pragmatic contradiction: after all, this very essay is making use of some applied mathematics. And a very plausible diagnosis of the noticeable drop in quality in so-called core areas of philosophy over the past few decades is that the science is getting stale: mathematical logic was a dramatic intellectual innovation of the early twentieth century; modal logic was an interesting extension of the mid-twentieth century; long after the mathematicians have moved on, the philosophers are still stuck on fifty-to-one-hundred-year-old science. (Logic is often the only science philosophers learn, and you still see, for example, modal logic being recycled into theories of higher-order vagueness.) When you let the science get stale, the ideas go downhill; how can that be compatible with the stability of the philosophical problem space?

My own sense is that the impetus which the sciences impart to philosophizing is very often a matter of a motivating or even inspiring *picture*—what used to be called a *Weltanschauung*—rather than results. As a philosophical culture matures, its claims become more clearly formulated, and they pull free of the picture. But this is only a placeholder for saying what it is to use a motivating picture of this kind.

that a problem is of philosophical interest by showing that you would have to solve it in order to solve other philosophical problems. Sometimes I am inclined to think that that is the only demonstration you can give; we can name this possibility the *autonomy of philosophy.*

This characteristic of the philosophical problem space does not, of course, distinguish this problem space from others similarly structured.[33] And in saying what makes a problem philosophically interesting I have not in any way spoken to the question of whether philosophically interesting problems are plain and simple interesting, that is, interesting when a prior interest in some problems of philosophy is not already in place.

6

I have suggested that the practicing philosopher's awareness of the underlying space of philosophical problems accounts for the widespread unwillingness to embrace relativism wholeheartedly. I now want to claim that the structure of the problem space also explains the pull of relativism. A little while ago, I gestured at a Toynbean picture of the rise and fall of philosophical civilizations, each cycle of which regenerates the philosophical problem space from some new choice of initial problems. We have seen why rising philosophical cultures tend to end up resembling each other. But why do they fall? Consider the following explanation of the repeated urge to revolution, to start philosophy over anew, or to do away with it once and for all, that terminates one cycle and begins the next.

The characteristic operation of philosophy takes you from an initial problem to another problem that must be solved first; applying the characteristic operation to the latter problem takes you to a further problem that must be solved still earlier, and so you are led, step by step, from your initial problem. . . back to your initial problem; because, sooner or later, it will turn out that in order to have solved some problem in this series, you have to have solved your initial problem first.[34] The graph corresponding to the problem

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[33]Does it account for the distinctive importance of *figures*—I mean the canon of individual philosophers—to the discipline? Perhaps, if we can understand them as functioning allegorically, that is, as personifications of global joint solutions to the problems of philosophy. I am of several minds as to how far this suggestion can be developed.

[34]Just to have an example of how these investigations can come full circle: You might start off by deciding that values are secondary qualities, and that in order to understand values, you need a philosophical account of counterfactual conditionals. Proceeding with a possible-worlds account of counterfactual conditionals, you discover you need to explicate the notion of a similarity metric or nearness ordering over the space of possible

space contains cycles, and this fact becomes progressively more apparent over the history during which an attempt to restart philosophy is played out.[35] There is no clean starting point; because all one's answers are interdependent, one must give an answer to all the problems of philosophy at once. Philosophical system-building is an entirely natural response.[36] It then comes to seem as though there must be different sets of simultaneous answers to all the problems of philosophy and no logically decisive way to choose between them. The alternatives (messy or nuanced, depending on your state of mind) take on the status of options that one can move between in roughly the way one can induce visual gestalt switches; and which way of seeing the philosophical world is right, to depend on something further—preferences, prejudices, intuitions, or political agendas—to which philosophical truth must be understood as relativized. Eventually, one throws up one's hands and starts over.

If this is right, relativism is both endorsed by one aspect of the philosopher's experience and belied by another. Because it's a good idea to take the practitioner's craft experience seriously, it's tempting simply to split the difference: to conclude that relativism is true of solutions to philosophical problems, but not of the problems themselves. And indeed some such

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worlds. But what counts as more similar (or 'closer') to what is going to be in large part a matter of what features of a state of affairs are more important than what other features. And making philosophical sense of that sort of importance means—you may end up concluding—first making philosophical sense of values.

[35]This is not a coincidence: that the graph representing the problem space contains cycles is entailed by the full set of problems being the closure under the characteristic operation of any of its subsets. The proof is trivial, and left as an exercise to the reader.

[36]Although not an inevitable one; in the institutional world of analytic philosophy, there are strong professional pressures to specialize, and specialists, even if they are sensitive to the ways in which philosophical problems are connected, don't for the most part build systems. Despite those pressures, we have our share of analytic system builders; Robert Brandom (1994) and David Lewis (note 37) are recent examples. (I'm grateful to Michael Bratman for pressing me on this point.)

The appearance of systems usually undoes the conflation of logical and temporal priority relations on which I remarked in note 22. At this point, the philosophical problem space comes to resemble a peculiar sort of crossword puzzle, constructed so that every clue suggests two different words of the appropriate length. For each entry, selecting the correct answer requires settling on some other answer; obviously such puzzles can be solvable, which they would not be if selecting each word in the puzzle required having, earlier in time, selected another. (Every now and again you get someone who thinks such puzzles *aren't* solvable—but that's to make the mistake of the beginning algebra student who becomes convinced that you can't solve n equations in n unknowns.) Once we reach the stage of system construction, the logical constraints are no longer taken to impose a temporal order on investigative activities, and the exercise comes to be seen as that of finding a solution satisfying all of the constraints at once.

accommodation is implicit in the work of a number of prominent contemporary and recent philosophers. In the face of systematic underdetermination, a quite natural response is to pick one or another set of starting points, and use those to attempt to solve the standard menu of philosophical problems. The solutions thus arrived at are treated, more or less implicitly, as true with respect to those starting points. (Philosophers are, after all, quite used to the idea that the conclusions of one's arguments vary with their premises.) The starting points themselves are recommended on pragmatic grounds, as those capable of generating the exhibited solutions.[37]

There are two problems with this kind of attempt at accommodation. First, to take a position on a philosophical problem as an unquestioned starting point, from which one will proceed to solve other philosophical problems, is to reverse the characteristic direction of philosophy; when this happens, the results turn out to be strikingly unphilosophical. The point here is not one of labeling—it is not that we don't want to *call* system-building of this kind 'philosophy'—but rather that such enterprises find themselves in an awkward position, that of being unable to explain why they have the scope that they do. Such enterprises typically take for granted the set of philosophical problems they are to solve; but those problems, we saw, were generated by the backward motion induced by the characteristic operation of philosophy. If the demand that generates the problem space is legitimate, then it is not possible to adopt, by fiat, starting points one will not look behind. So if one's method of addressing philosophical problems is to adopt, by fiat, starting points one will not look behind, then one will be in no position to explain why it is *those* problems one must solve; and one will, consequently, be in no position to explain why a solution to those problems constitutes a recommendation for those starting points.

The second problem is that the relation, in these cases, between starting point and conclusion is not of a kind that can be successfully construed as underwriting a form of relativism. The relation is that of conclusions to premises, and while the conclusions of an argument do depend on its premises, they are not true relative to the premises. If I believe you are stopping off at the farmstand on the way here (call that belief p), I may infer that you will arrive with enough fresh produce for a dinner (call the conclusion q). My inference to q does depend on my believing p; but q is not thereby true-for-me or true-relative-to-p. That you will turn up with the groceries is just true or false; it is not true relative to my belief, and

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[37]For examples of deliberation as to whether to make such a pragmatic recommendation, see Lewis, 1983, and Lewis, 1986, pp. 3–5.

perhaps false relative to someone else's. *Premises* (or, in one philosophical jargon, 'intuitions') are not suited to be the basis of a relativism.

Underdetermination is not yet relativism. Relativism requires an appropriate form of dependence, of that which is relativized, on its basis. Where the dependence is not constitutive, as it is not in the case of the conclusion inferentially depending on the premises, there is no room for a relativist understanding of that dependence. Accepting the premise is not what makes the conclusion true, and so the conclusion is not true-relative-to-the-premises.

I said earlier that we must take seriously the craft experience of the practitioners of academic disciplines; but I also allowed that that experience could be misleading. In philosophy, craft experience pulls both towards and away from relativism; if splitting the difference does not work, the pull toward relativism is misleading. The experience of underdetermination is being misinterpreted as the experience of relativism.

7

Relativism can be a far more comforting state of mind than that of trying to live with underdetermination. Realizing that relativism is true for fashion means giving up the project of discovering what is fashionable from the point of view of the universe, and of coming by a wardrobe that, as it were, participates in or copies the Form of the Fashionable. But there remains the very real task of figuring out what *is* fashionable this season, and of acquiring a wardrobe that is fashionable here and now. Likewise, relativism in philosophy leaves one with the still tangible task of figuring out what is true and right—even if not right and true, plain and simple, but for you, in the circumstances you're in. Accepting underdetermination, on the other hand, means accepting that your problems have no solutions—not even solutions-for-you.[38] And that's a disheartening conclusion to draw: there's

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[38]Why take underdetermination to amount to no solution, rather than a welcome over-abundance of them? The question here is whether the enterprise is one of discovery or engineering. Alternative solutions to an engineering problem mean that you have a choice. Alternative solutions to a discovery problem mean that the problem is unsolved. For the present, I'm proceeding under the assumption that the problems of philosophy are to be understood as discovery problems.

There is a second complication. The availability of multiple solutions can feel liberating because one thinks that one can then choose the solution one wants, or the solution that will make one's life go best. But the subject matter of philosophy includes ethics and practical reasoning; whether one ought to choose what one most prefers, and what it is for a life to go well, are both philosophical questions. The idea that somehow they are

no point in working on problems you can't solve, even if your inability to solve your problems isn't going to make them go away.

I want to suggest that this reason for giving up on philosophy is premature. Let me acknowledge that that suggestion may seem at first glance outrageous. We have had some of the brightest people who have ever lived working, for well over two millennia, in what I have argued is a stable problem space. And many of the excuses that might be used for other lagging sciences—lack of empirical data, or of sufficiently fancy gadgetry—are thought to be unavailable to philosophy. If, after all this time, what we have come up with is underdetermination, surely the reason for not giving up cannot be that it is *too early*. But, if I am right about the way in which the structure of the philosophical problem space gives rise to (at any rate, apparent) underdetermination, that may nevertheless have been the problem.

Once the relations between the problems of philosophy are understood, the overall problem becomes one of jointly satisfying the constraints induced by those relations—these, recall, being the relations that are (approximately) traced out by repeated applications of the characteristic operation. We can call this problem, that of finding the most coherent joint solution to the problems of philosophy, given those constraints, the *philosophy coherence problem*.[39]

Approaches to the philosophy coherence problem have, until this point, inevitably been *ad hoc*, since, until very recently, no one had tried to investigate coherence and methods for solving coherence problems in any concrete and useful way. Philosophers have a long history of talking about coherence without being able to say the first thing about what coherence consists in,

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not is a vestige of the early stages of logical positivism; as we have seen, answering these questions would require having also resolved all the other problems of philosophy. If one is willing to use one's answers as a basis for decision without considering their philosophical merits, then one is not seriously in the market for answers to one's philosophical problems in the first place.

[39]One further bit of evidence that philosophy constitutes a coherence problem is given by the craft practice, in philosophers' willingness to negotiate *tradeoffs* between the components of their theoretical positions: this would make no sense if the philosophical facts were not in some way made so by hanging together properly.

Is the coherence problem new, and have I thereby added a problem to what I claimed was the fixed stock? No: just for instance, Wittgenstein once wrote that "no philosophical problem can be solved until all philosophical problems are solved: which means that as long as they aren't all solved every new difficulty renders all our previous results questionable" (1958, p. 44).

Now we can give a further reason for the history of philosophy being part of philosophy proper: it allows us to trace out the philosophy coherence problem.

without having a way of determining when one solution to a problem is more coherent than another, and without having any ideas about how to remedy this particular intellectual shortfall. If the problems of philosophy must be considered jointly, and if, considered jointly, they amount to a coherence problem, then it is not surprising that they have remained unsolved.

The investigation of coherence is still in the very preliminary stages. But we are starting to see new formal and computational analyses of coherence. It is necessary to emphasize that these are crude and in need of further development. But they indicate how content can be given to talk of coherence, how judgments of relative coherence can assessed, and how techniques for computing coherence can be developed and tested.[40]

Even on the basis of the extremely preliminary work with these techniques to date, two important points can be made. First, I suggested that the awareness of cycles in the philosophical problem space was responsible for the sense that the available constraints fail to determine a unique solution to the problems in that space. If the value you assign A depends on the value you assign B, and vice-versa, it can easily seem that there must be more than one way to assign values to A and to B. But experimenting with computational methods of representing joint constraint satisfaction problems shows that inference to be much too fast. It will *sometimes* be true for a specified type of constraint satisfaction problem, and for a given set of cyclical constraints, that there are ties for the best solution; but often there will be unique best solutions. Merely observing the presence of cycles is not enough to give you the conclusion that there's no one right answer. There's no way to tell if there really are ties short of generating and ranking the solutions, and so far, we don't even have our method for ranking them sorted out—much less all the solutions we need to rank.

Second, if philosophy really does amount to a large coherence problem, it is too early to give up on it, for two reasons. Many constraint satisfaction problems are NP-complete—that is, they belong to a class of problems widely thought to be computationally intractable.[41] NP-complete problems

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[40]See, e.g., Thagard, 1989, which develops a simple quasi-connectionist computational model of coherence; Hoadley *et al.*, 1994, which attempts to model the role of attention in Thagard-like coherence problems; Thagard and Verbeurgt, 1998, which proposes a formally specified coherence problem closely resembling MAX CUT.

[41]For a somewhat dated, but still useful, introduction to NP-completeness, see Garey and Johnson, 1979. One of the coherence concepts I have already mentioned (in note 40, above) has been shown by Verbeurgt to be NP-complete. (The proof is by reduction to MAX CUT.) That coherence problem, however, although very suggestive, differs from the likely shape of the philosophy coherence problem. For one thing, a graph of the latter problem would contain hyperedges. For another, the Thagard/Verbeurgt problem is not

are not normally amenable to solution by brute force methods in *any* reasonable amount of time; if such a problem were at the core of philosophy, over two thousand years of philosophy would not have been nearly long enough. If the philosophy coherence problem is intractable, we will solve it only by developing more sophisticated approaches to it: ways of approximating the solution, or of isolating features of the problem that will identify it as a member of a tractable subclass. And because we have only just started to think about how to solve problems of this kind, we have a second reason for holding that until very recently it was simply too early to make any real headway on this problem.

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If the problems of philosophy really do jointly amount to a coherence problem, one might think that their solution was just around the corner. At any rate, the program for solving them might seem quite clear. We need, first, to work up a precise specification of the coherence problem; second, we need to develop techniques for computing, or approximately computing, the most coherent solution, given a set of constraints; third, we need to be putting the philosophy coherence problem into a form that will allow these techniques to be applied to it, i.e., turning the connections between philosophical problems traced by the characteristic operation into a list of constraints that the correct philosophical view will satisfy.[42] I have been arguing that there is already a good deal of convergence on the constraints; advances in theory of computation can be expected to give us the menu of powerful methods that we need. With the list of constraints, and the right computational methods in hand, the problems of philosophy can be solved in short order— in the manner of Douglas Adams, or anyway the four-color problem, by a computer.[43] The end of philosophy is in sight, and very shortly only the mopping up will be left...just as the logical positivists thought a century

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directly sensitive to the internal structures of competing theories.

In fact, when we take account of our simplifications in the introduction of the characteristic operation, we can see that the complexity of the constraint satisfaction problem is even greater than our initial rendering of the problem space would have suggested.

[42]Notice one constraint on the solution to the philosophical coherence problem: it had better not include the position that coherence is not in fact a legitimate basis for inference. If the philosophical problem space really does have the shape I have been describing, then we have here the entering wedge of a transcendental argument for a coherence theory of philosophical truth.

[43]Adams, 1997.

ago, and Kant thought a century earlier,. . . and so on, back to the beginning of the discipline.

The history suggests that this kind of optimism would be over-optimism, and here's a reason why. In order for it to be possible to investigate computational solutions to problems of this kind, one needs, first, a list of the constraints one is trying to satisfy. But even if there is overall agreement as to how the problems of philosophy are connected one to another, there is bound to be disagreement on the details. (E.g., whether one takes two nodes to be linked will depend on what position one has regarding some other node, and there is the question of how relative weights should be assigned to the different constraints.) And many constraint satisfaction techniques are quite sensitive to details like these. Second, one will need a precise computational specification of the problem: exactly which coherence problem are we trying to solve?[44] When we sit down to produce one, and the inputs to it, we will quite certainly find ourselves embroiled in disputes as to what counts as coherence, or what kind of coherence is required to solve *this* problem. Coherence is a label for one of the traditional philosophical problems, and so the problem of which kind of coherence is the right one can be expected to require for its solution other solutions to further problems.[45] And so we will find ourselves facing, once again, all of the problems of philosophy.

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[44]For an argument to this effect, as well as a warning about a pitfall in devising approximate solutions to hard discovery problems, see Millgram, 2000.

[45]Just for instance: many invocations of coherence presuppose that it is induced by inferential relations; so an account of what coherence amounts to waits on an account of the inferential relations; but this is the central problem, or one of them, in philosophy of logic. Or again, in philosophy of science, coherence has been supposed to involve *aesthetic* qualities (such as 'elegance' or 'simplicity'); but what is an aesthetic quality, and why should the aesthetics make this sort of inferential difference?

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