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“The Case for Naturalized Epistemology”

Joshua Shepherd & Michael Bishop

Naturalized epistemology is like pornography and modern art: People love it or hate it even though they can't define it. And with respect to naturalized epistemology at least, this is as it should be. It is contrary to the spirit of naturalized epistemology to try to provide a precise definition of it from the armchair. Our goal in this paper is to articulate a general framework for understanding philosophical naturalism and to argue for a moderate form of naturalized epistemology. We will not conclude with a clear definition of naturalized epistemology, with its assumptions and implications bare and gleaming. Rather, we propose to end up with something rough but robust.

1. A framework for understanding naturalism and analytic philosophy

Philosophers present considerations in favor of and against theories. Let's call such considerations evidence. What sort of evidence is it legitimate for philosophers to appeal to in defending and criticizing philosophical theories? In recent years, the debate about how to do epistemology, and philosophy more generally, has focused on this question. In particular, metaphilosophical debates have turned on what role intuitions should play as evidence in philosophical argument and theorizing. As we shall see, there is some debate about what exactly intuitions are. We will proceed with an intuitive grasp of intuitions based on some typical examples. Anyone who has studied contemporary analytic epistemology will be able to identify intuitions and recognize their role in epistemological theorizing. A philosopher begins with a theory that purports to account for a philosophically important category, like knowledge or justification. A philosopher criticizes that theory by offering a scenario, perhaps hypothetical, in which the theory implies a falsehood. For example, Gettier (1963) famously presented a pair of cases against the JTB (justified, true belief) account of knowledge. In one of the cases, Smith has strong evidence that Jones owns a Ford. But he has no evidence concerning the whereabouts of his friend Brown. Gettier has us suppose that from his evidence, Smith infers via disjunction addition that either Jones owns a Ford or Brown is in Barcelona. However, it turns out that Jones does not own a Ford – the car he's currently in is rented. Further, “by the sheerest coincidence, and entirely unknown to Smith,” Brown is actually in Barcelona (1963, 123). Smith has a justified, true belief that is not knowledge. The judgment that Smith's belief that either Jones owns a Ford or Brown is in Barcelona is not knowledge is a prototypical example of an intuition that plays a crucial role in epistemological theorizing. Most analytic philosophers take such intuitions to be evidence in the same way that scientists take their observations to be evidence. Philosophers treat intuition “as a source of epistemic justification, just like perception, memory or testimony” (Grundmann 2010, 481).

To say that intuitions are evidence is somewhat awkward. What counts against the JTB account is that Smith's belief is not knowledge (not that someone or other has an intuition that it is not knowledge) and that the JTB account says that it is knowledge. The idea here is that intuitions are "evidence" for a philosophical theory in the same way observations are "evidence" for a scientific theory. A more accurate way to put the point is that in normal circumstances, the intuition (or observation) that p is an indication of p, and p is evidence for a philosophical (or scientific) theory. Rather than this accurate mouthful, we will continue to speak colloquially in terms of intuitions being evidence for or against philosophical theories.

It is common to hear from naturalistic philosophers that scientific evidence should play a significant role in philosophical theorizing. Scientific evidence consists of the empirical, contingent findings and theories that result from the accepted practices of science, regardless of whether it is conducted by scientists or philosophers. Naturalistic theories have appealed to a broad range of scientific evidence in support of their theories – for example, evidence from behaviorist psychology (e.g., Quine 1969), anthropology (e.g., Stich 1991), evolution (e.g., Lorenz 1977, Bradie 1989), ethology (Kornblith 2002) and cognitive science (e.g., Goldman 1986, Bishop & Trout 2005). We do not take a firm stand on the role of intuitions in the development of scientific evidence, but we are certainly not committed to the thesis that intuitions (at least on certain views of what count as intuitions) play no role in establishing or confirming scientific evidence (e.g., Bealer 1992). If intuitions are essential to the accepted practices of science, then it seems to us that the naturalist can and should accept this fact without a second thought.

A useful way to understand the difference between analytic philosophy and philosophical naturalism is in terms of what evidence each takes to be relevant to confirming or disconfirming philosophical theories. Analytic philosophers give pride of place to intuitions, while naturalistic philosophers insist that scientific evidence is crucial to establishing philosophical theories. But of course, this need not be an all-or-nothing matter. The following schema sets out a range of views one might adopt with respect to what sort of evidence is relevant to philosophical theorizing.

Schema PHI: The substantive evidence relevant to philosophical theorizing consists of A intuitions and B scientific evidence.

A: only, primarily, some, limited, no

B: only, primarily, some, limited, no

By "substantive" evidence, we mean evidence in the form of facts or propositions and not simply theoretical considerations in favor of a theory (such as simplicity or explanatory power). Schema PHI is quite crude in a number of ways. It assumes that intuitions and scientific evidence are the only candidates for substantive evidence for philosophical theorizing. It also leaves considerable room for specifying in more detail the precise roles intuitions and scientific

evidence might play in philosophical theorizing. Despite these limitations, Schema PHI succeeds in making evident that there are not just two extreme positions to choose from. The range of viable moderate options is quite wide. We might understand Radical Analytic Philosophy to be committed to the <only, no> solution to Schema PHI and Radical Naturalistic Philosophy to be committed to the <no, only> solution. And there are surely philosophers who fall into these extreme camps. For example, Quine (1951) and Bealer (1998) seem to offer general arguments for thinking that only one sort of evidence is relevant to philosophical theorizing.

We might worry that Schema PHI fails to leave room for a moderate pluralism that holds out the possibility of different solutions for different areas of philosophy. For example, a pluralist might argue that theories in the philosophy of science turn at least in part on scientific evidence, whereas certain branches of metaphysics rely only on intuition. Since we want to allow for the possibility that there might be different Schema PHI solutions for different areas of philosophy, we propose a schema focused on epistemology.

Schema EPI: The substantive evidence relevant to epistemological theorizing consists of A intuitions and B scientific evidence.

A: only, primarily, some, limited, no

B: only, primarily, some, limited, no

We propose to characterize different approaches to epistemology in terms of how they complete Schema EPI. But how one solves this schema will depend on a number of factors. One is what we take to be the purpose or aim of epistemology. Following Stich (2010), we can distinguish five possible projects epistemologists might embark upon:

1. Intuition capturing: A epistemological theory must entail our epistemic intuitions (perhaps with some light revisions in the service of clarity or theoretical power).
2. Implicit theory: There is an implicit theory that underlies our abilities to produce epistemic intuitions. An epistemological theory of knowledge must give an account of that implicit theory.
3. Conceptual analysis: There is a concept that underlies our abilities to produce epistemic intuitions. An epistemological theory must give an account of that concept. (Note: On some views of concepts, this project will be identical to the second project.)
4. True nature: An epistemological theory must characterize the nature and conditions of some epistemological category, e.g., knowledge, justification, warrant. This assumes that these categories are not necessarily perfectly captured by our concepts of them. For example, a theory of knowledge must tell us about the nature of knowledge, which

might not accord in all details with our concept of knowledge (in the same way that the nature of water might not accord in all details with our concept of water).

5. Reason-guidance: An epistemological theory aims to provide epistemic guidance to our cognitive lives. It is supposed to tell us what we epistemically ought to believe, or how we epistemically ought to reason. Of course, the advice of a reason-guiding epistemological theory might be overridden by other considerations, epistemic or non-epistemic. For example, a reason-guiding theory might tell us that we ought (epistemically) to believe p , even though there are competing moral or pragmatic considerations that, all things considered, advise against believing that p .

This list represents a reasonable, though not necessarily exhaustive, spectrum of projects upon which epistemologists might be embarked. If one takes the goal of epistemology to be one of the first three projects, then it would be foolish to deny intuitions a significant role in epistemological theorizing. Scientific evidence might also play a role in some such projects. If the implicit theories and concepts adverted to by projects 2 and 3 are psychological structures, then psychology, its methods, and its evidence are likely to be relevant to epistemological theorizing (Goldman 1993). Since we want to focus on projects in which a radical naturalism is a live option, we will assume that the proper goal of epistemology is given by projects 4 or 5. So epistemology seeks to characterize the true nature and conditions of some epistemological category (such as knowledge or justification), or it seeks to provide some kind of reason-guidance, or it seeks to do both.

Despite the ample conceptual room in the middle, it is noteworthy that the debate about intuitions tends to focus on the extreme ends of the spectrum.

Radical Analytic Epistemology (RAE). The substantive evidence relevant to epistemological theorizing consists of only intuitions and no scientific evidence.

Radical Naturalized Epistemology (RNE). The substantive evidence for our epistemological theories consists of no intuitions and only empirical considerations.

Our goal in this paper is to raise serious doubts about these extreme views and argue that the middle ground in this debate is the place to be. As we will suggest in section 4, given the current state of epistemology, a moderate view that takes both intuitions and scientific evidence to be crucial to epistemological theorizing will be interpreted by most contemporary philosophers as a kind of naturalism. And so we take ourselves to be moderate naturalists.

2. The case against Radical Analytic Epistemology

Radical Analytic Epistemology is the view that the substantive evidence relevant to epistemological theorizing consists of only intuitions and no scientific evidence. More than a few analytic epistemologists would embrace RAE. George Bealer, for example, argues that most

central philosophical questions, including epistemological ones, “can in principle be answered by philosophical investigation and argument without relying substantively on the sciences” (1996, 121). For Bealer, philosophy is an a priori discipline, and as such is autonomous from empirical results. Indeed, when philosophy and science purport to answer the same question, Bealer maintains that “the authority of philosophy can in most cases be greater in principle” (1996, 121). Some other analytic epistemologists are a bit more cautious. Ernest Sosa, for example, argues that philosophical intuitions should play the same role in epistemological theorizing as observations do in science (2007a). However, Sosa admits that in principle, scientific evidence could be relevant to epistemological theorizing. For example, if well-conducted surveys were to show that people had radically divergent intuitions about a crucial epistemological category like knowledge or justification, this would call into question the evidential role of intuitions: “extensive enough disagreement on the subject matter supposedly open to intuitive access” would represent “a prima facie problem for the appeal to intuitions in philosophy” (2007a, 102). Sosa, however, doubts that empirical considerations do indicate such disagreement. As a result, we can perhaps interpret Sosa as embracing RAE as a contingent truth for which we have strong evidence.

One way naturalists have commonly argued against RAE is to insist upon an “ought implies can” requirement on epistemological theorizing. Stephen Stich, for example, contends that it would be a mistake for an epistemological theory to demand that someone engage in cognitive gymnastics that would require “a brain the size of a blimp” (1990, 27). An “ought implies can” restriction would require giving up RAE since epistemological theories could be disconfirmed by scientific evidence concerning our cognitive limitations. But some analytic epistemologists reject this empirical restriction on epistemological theorizing. For example, Feldman and Conee’s (1985) evidentialist theory of epistemic justification holds that epistemic justification is simply a function of the evidence one has. What happens if someone possesses evidence which, given his cognitive limitations, renders him incapable of forming a justified belief? An “ought implies can” restriction would rule out a theory of justification which makes demands of agents regardless of their cognitive abilities. Feldman and Conee, however, reject the restriction. “Some standards are met only by going beyond normal human limits” (1985, 19).

To make the case against RAE, let’s begin with an empirical hypothesis for which we have considerable evidence.

Cognitive Diversity is the thesis that there are significant and systematic differences in how different classes of people reason about the world.

In recent years, psychologists and anthropologists have uncovered cognitive diversity not just with respect to higher-order inferential reasoning about morality, aesthetics or cultural practices, but with respect to fairly basic sorts of cognitive processes. For example, in the ‘Michigan Fish’ study, Masuda and Nisbett (2001) showed Japanese and American subjects animated underwater scenes. When subjects reported on the scenes, Americans tended to

refer first to the fish, while Japanese tended to refer to the scene's background elements. Overall, Japanese subjects made roughly 70 percent more statements about background features of the scene, and 100 percent more statements about relationships with inanimate aspects of the environment – e.g., “A big fish swam past some gray seaweed” (Nisbett et al. 2001, 297) – than did Americans. Reviewing these and related results, Nisbett and colleagues embraced cognitive diversity: “literally different cognitive processes are often invoked by East Asians and Westerners dealing with the same problem” (2001, 305). Nisbett and colleagues contend that these differences are systematic: the reasoning of Westerners is analytic, “involving detachment of the object from its context, a tendency to focus on attributes of the object to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behavior”; in contrast, the reasoning of East Asians is holistic, “involving an orientation to the context or field as a whole, including attention to relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships” (Nisbett et al. 2001, 293). It should be emphasized that this is taken to be a cultural phenomenon, not a biological or racial phenomenon (Nisbett 2003). For example, Nisbett et al. have found that regarding cognitive processing, “Asians move radically in an American direction after a generation or less in the United States” (2001, 307).

While the work of Nisbett and his colleagues has rightly received considerable attention, there are many other examples of cognitive diversity across a wide range of cognitive tasks. Here are some examples from a recent review (Heinrich et al. 2010).

Visual Perception: The apparent strength of visual illusions (such as the Muller-Lyer illusion) varies greatly across cultures. Some cultures find certain illusions – for example, that two lines of the same length appear to be different lengths – strikingly obvious; other cultures find the same illusion much less obvious or even, in some cases, not apparent at all. As Heinrich et al. note, “this work suggests that even a process as apparently basic as visual perception can show substantial variation across populations” (2010, 64).

Spatial Reasoning: Nonlinguistic processes related to spatial reasoning evince cultural and linguistic differences. Speakers of English and related Indo-European languages tend to represent space egocentrically, with implicit reference to the self (e.g., the man is to the left of the flagpole). But speakers of many other languages tend to represent space differently. Some represent space in a geocentric fashion using to cardinal directions (e.g., the couch is west of the television), while others represent space in an object-centered manner according to “some coordinate system anchored to the object” (e.g., the couch is in front of the television) (2010, 68).

Categorization and Inferential Reasoning: There are significant differences in how people in different cultures understand, organize, and reason about basic biological categories. While urbanized populations tend to rely on similarity classes in order to

make biological inferences, populations in closer contact to “the natural world . . . prefer to make strong inferences from folkbiological knowledge that takes into account ecological context and relationships among species” (2010, 67). For example, urbanized populations first learn life-form classes (e.g., bird, fish, mammal), while non-urbanized populations first learn generic species (e.g., crow, trout, fox). Further, while the biological inferences of children in urbanized populations depend strongly on known properties of humans, children in non-urbanized populations display no such inferential pattern. Their folkbiological reasoning sees humans as one animal among many – a feature of folkbiological reasoning which occurs only much later in urbanized populations. Given this evidence, Heinrich et al. suggest that “In general, research suggests that what people think about can affect how they think” (2010, 67)

Moral Reasoning: While folks from Western nations tend to utilize abstract ethical principles concerning justice and individual rights to guide their moral reasoning, people from non-Western nations tend to rely on conventional moral schemata – schemata influenced by considerations such as the maintenance of social order. This cross-cultural difference survives when education is controlled for. Another difference is that Westerners tend to characterize morality more often in terms of justice and harm-based rules, whereas non-Westerners are more often sensitive to considerations of community and holiness.

This breadth of cognitive diversity is striking. But what is perhaps more striking is that on the above tasks, those of us from WEIRD nations (i.e., Western, Educated, Industrialized, Rich, Democratic nations) are not typical, statistically speaking. For example, on all of the above categories, Westerners are at the far end of the scale: “WEIRD populations frequently occupy the tail-ends of distributions of psychological and behavioral phenomena” (Heinrich et al. 2010, 76). Further, “American participants are exceptional even within the unusual population of Westerners – outliers among outliers” (2010, 76).

Cognitive diversity is a challenge for two reasons. First, it gives practical motivation to epistemology. If people in different cultures systematically apply different cognitive processes to the same problem and so come to different beliefs, then the problem of epistemic evaluation becomes especially pressing. “[I]t is the prospect of cognitive diversity among normal folk that lends a genuine, almost existential, urgency to the project of cognitive evaluation” (Stich 1990, 74). And second, cognitive diversity makes epistemic diversity more plausible.

Epistemic Diversity is the thesis that there are significant and systematic differences in the epistemic intuitions and practices employed by different classes of people.

To see the link between cognitive and epistemic diversity, let's assume that people tend not to systematically arrive at beliefs they intuitively deem to be unjustified. And so in those cases of cognitive diversity in which people systematically arrive at inconsistent beliefs, it is plausible that they should also come to inconsistent epistemic judgments or intuitions. The relationship between cognitive and epistemic diversity is not one of entailment. Perhaps after reflection, the people of one of the cultures would realize their beliefs were unjustified; or perhaps the cognitive diversity does not result from epistemic diversity but because of confusions. Still, the amount of systematic cognitive diversity psychologists have discovered makes epistemic diversity at least a realistic possibility.

While the existence of cognitive diversity allows us to make an indirect case for epistemic diversity, there is direct evidence for thinking that there are significant and systematic differences in the epistemic concepts, judgments, and practices that people employ. Weinberg, Nichols and Stich (2001) gave the following Gettier-style example to sets of Western and non-Western subjects.

Bob has a friend, Jill, who has driven a Buick for many years. Bob therefore thinks that Jill drives an American car. He is not aware, however, that her Buick has recently been stolen, and he is also not aware that Jill has replaced it with a Pontiac, which is a different kind of American car. Does Bob really know that Jill drives an American car, or does he only believe it? (2001, 443)

If you are a member of a WEIRD population, chances are you have the intuition that Bob only believes that Jill drives an American car. For this is the intuition of most WEIRD philosophers, and this was the intuition of most Westerners in the above study. However, the situation for non-Westerners was different. In the above study, a majority of East Asian subjects, as well as a majority of subjects from India, had the intuition that Bob really knows that Jill drives an American car (2001, 443).

On the assumption that the goal of epistemology is to account for something beyond our own epistemic intuitions, implicit theories or concepts, epistemic diversity is a serious prima facie challenge. We want a theory that tells us about the true nature of knowledge or epistemic justification; or we want a theory that tells us how people epistemically ought to reason. But how can we construct such a theory if the evidential base is exhausted by intuitions that are diverse across different groups of people? There seem to be only three options available to the proponent of RAE.

1. Denial: Deny the existence of epistemic diversity.
2. Privileging: Argue that one set of intuitions is superior to others, and so only those intuitions count as evidence for epistemological theories.
3. Relativism: Epistemological theories will be different for people or cultures with significantly different intuitions.

We will argue that each of these options suffers from serious problems.

2.1. *Relativism*

We can dismiss relativism because this is not a live option for most proponents of RAE. But even if epistemic relativism were more popular, the version of relativism to which one is driven by epistemic diversity is deeply unpalatable. As Weinberg, Nichols and Stich note, the version of epistemic relativism suggested by the above results “would entail that the epistemic norms appropriate for the rich are quite different from the epistemic norms appropriate for the poor, and that the epistemic norms appropriate for white people are different from the norms appropriate for people of color. And that we take to be quite a preposterous result” (2001, 449)

2.2. *Denial*

The denial strategy involves rejecting epistemic diversity. In order to deny that there is good evidence for epistemic diversity, one need not accept its negation, epistemic universalism.

Epistemic Universalism is the thesis that there are no significant and systematic differences in the epistemic intuitions and practices employed by different classes of people.

One might remain agnostic between the two by suspending judgment. But we will contend that as the evidence for epistemic diversity grows stronger, it will be more and more difficult for the proponent of Denial to remain agnostic.

The basic plan behind the Denial strategy is straightforward: Agree that the evidence shows a diversity in epistemic judgment (i.e., in what people say about the cases) but deny that this shows a diversity in epistemic concepts or categories. The way proponents of Denial have made this argument is by raising various methodological worries about the empirical studies. They offer explanations for the diversity in epistemic judgment that do not entail diversity in epistemic concepts or categories. Kirk Ludwig, for example, suggests that the epistemic judgments made by folks surveyed might not manifest the content of their epistemic concepts because they “are apt to be the product of a number of different factors, among which are how they understand the task, their background beliefs, empirical and nonempirical, how they think what they say will be taken, loose analogies they may draw with other sorts of situations, how they understand the scenario, whether they pay adequate attention to relevant details, whether they think clearly and hard enough to see what to say in response to the kind of question asked, assuming they understand it correctly, how they think that their interlocutor will (or interlocutors generally would) understand what they say or more generally what they would be trying to convey by what they say or how they respond, as well as perhaps various

shortcuts or rules of thumb in reasoning, or plain mistakes” (2007, 144; also cf. Sosa 2009, 106-109).

Against this argument, it is important to note that one can always raise possible problems against any instance of research in any scientific discipline: researchers might have employed a faulty measuring instrument or idiosyncratic features of the experimental set up might have conspired to lead the researchers astray. Science would not get very far, however, if the mere mention of such possibilities stopped research in its tracks. In general, such worries are blunted when the results of a study are supported by diverse lines of evidence. Armchair “mere possibility” objections against (say) the standard account of the evolution of the horse are undermined because the evolutionary account of the horse is supported by so many different lines of evidence from so many different areas of science. Given the number and strength of these lines of evidence, armchair “mere possibility” worries about evolution look like desperate appeals to the miraculous (Bleckmann 2006). That’s not to say that the standard account of the evolution of the horse, or of evolution itself, is immune from disconfirmation. Empirical hypotheses might always be felled by substantive objections. But these substantive objections typically do not come entirely from the armchair - they rely on hypotheses supported by divergent lines of empirical evidence. We can be confident that a hypothesis can overcome “mere possibility” objections to the extent it is supported by a wide range of studies that make many different assumptions.

Given the current state of the evidence, it is too early to form definitive judgments about epistemic diversity. But it is worth noting that epistemic diversity findings have been discovered across many different populations. We have already mentioned the cross-cultural evidence. Other studies have found systematic gender differences in people’s epistemic intuitions (Starmans and Friedman unpublished, Buckwalter and Stich 2011), and systematic epistemic differences among people of high and low socio-economic status (Weinberg, Nichols and Stich 2001, 447-448). In fact, a single person’s epistemic intuitions can change depending on the order in which different cases are presented (Swain, Alexander and Weinberg 2008), and depending on the moral valence of the fact in question (Beebe and Buckwalter forthcoming). Diversity of intuitions is found not just in epistemology. Studies have shown that intuitions about philosophical concepts are influenced by such factors as difference in personality type (Feltz & Cokley 2009) and slight changes in how the cases are described (Gendler 2007).

The Denial strategy involves suggesting an explanation for the diversity of epistemic judgment that does not entail diversity of epistemic concept or category. One can try to account for the diversity in judgment by appeal to one-off errors. But this explanation won’t work because at least some of the epistemic diversity is systematic and repeatable. Why is there a systematic difference in the intuitions of men and women on Gettier problems? Why do women more often get the “wrong” answer? Do women have different background beliefs about watch ownership than men (the content of the Gettiered belief in the relevant study)? Are women more likely to misunderstand the scenario than men? Are women more likely to draw “loose analogies” than men? Are women less likely to “pay adequate attention to relevant details” of the scenarios than men? Are women less likely to “think clearly and hard enough” about the situation than men? There is absolutely no evidence for these highly speculative hypotheses. What’s more, there are other well-known philosophical examples in which it is

women who more often get the “right” answers. So it is quite implausible - and quite frankly uncomfortable - to suppose that women are on average more confused or weak-minded than men when it comes to thinking about philosophy. There is a simpler and more plausible explanation for the systematic diversity in people’s epistemic judgments: there are some genuine differences in how men and women understand certain epistemic and philosophical categories. As more evidence piles up, it gets more difficult to explain away all the different kinds of diversity in epistemic judgments in a way that retains epistemic universalism.

There is another line of evidence that supports epistemic diversity, which we have already touched upon. The evidence for cognitive diversity, which is very robust, also lends support to epistemic diversity in two ways. First, cognitive diversity holds that people in different cultures reason in significantly and systematically different ways. If those people tend to epistemically approve of their own respective reasoning and beliefs, we should expect there to be some cross-cultural variation in people’s epistemic practices, concepts and intuitions. Second, some of the cross-cultural epistemic differences are predictable from the cross-cultural cognitive differences. Recall that Nisbett found systematic differences in Western and East Asian thought: “literally different cognitive processes are often invoked by East Asians and Westerners dealing with the same problem” (Nisbett et al. 2001, 305). But these differences were not random. East Asians were more sensitive to contextual and cultural factors than Westerners in how they thought. Perhaps East Asians are also more sensitive to contextual and cultural factors than Westerners in how they evaluate thought. This is precisely what the evidence shows. Weinberg, Nichols and Stich (2001) gave Western and East Asian subjects three “true temp” cases in which a person is unaware that his brain has been rewired so that he now possesses a perfectly reliable mechanism for acquiring beliefs about the ambient temperature. In the first case, the rewiring occurs to the individual by accident; in the second case it occurs by the order of his community’s elders; and in the final case the entire community has their brains rewired by accident. What we see here is a pattern: As the belief-forming processes become more culturally sanctioned, East Asians tend to evaluate the belief more positively. They were more and more likely to judge it to be knowledge. For Westerners, the cultural variations in the examples didn’t matter.

The differences between Ws [Westerners] and EAs [East Asians] look to be both systematic and explainable. EAs and Ws appear to be sensitive to different features of the situation, different epistemic vectors, as we call them. EAs are much more sensitive to communitarian factors, while Ws respond to more individualistic ones. Moreover, Nisbett and his colleagues have given us good reason to think that these kinds of differences can be traced to deep and important differences in EA and W cognition... What our studies point to, then, is more than just divergent epistemic intuitions across groups; the studies point to divergent epistemic concerns – concerns which appear to differ along a variety of dimensions (Weinberg, Nichols and Stich 2001, 451).

The case for epistemic diversity does not rest on a few survey results performed on a few dozen people. A number of different lines of evidence all point to the existence of epistemic diversity.

The various lines of evidence in support of epistemic diversity are weighty enough that “mere possibility” objections should raise moderate, but by no means debilitating, concerns. What we have yet to see is any empirical evidence suggesting that when confusions and other sources of judgment error are removed, the epistemic judgments of the Oxford don, the Iowa mechanic, the Japanese chef, and the Indian businesswoman are identical. Right now, there is evidence of systematic variations in epistemic judgments across different cultures and different classes of people (e.g., gender, socio-economic class). And some of these systematic differences in epistemic judgments correspond to similar systematic differences in cognitive functioning. The challenge for the philosopher who opts for Denial is not merely to explain differences in epistemic judgment. The challenge is to explain the systematic differences in epistemic judgment. We don’t contend that the Denial option is dead. There may be appropriately systematic explanations for the coherent patterns in the evidence that retain epistemic universalism. But as the evidence piles up, we see no reason to suppose that the prospects for Denial will brighten.

2.3. Privileging

The Privileging option often begins by “thin-slicing” categories of epistemic evaluation: If different people pass different judgments about an epistemic category and those judgments are not the result of any errors or confusions, then those people are employing different epistemic concepts or categories (even if they use the same term).

The advantage of thin-slicing is that it avoids the pitfalls of Denial. It does not require that we explain diversity of judgment in deprecatory terms. By slicing categories of epistemic evaluation thinly, the defender of RAE can maintain that the diversity findings only show that some folks have different categories of normative evaluation than others. So if East Asians pass more positive judgments about beliefs that are sanctioned by their community than do Westerners, that doesn’t mean East Asians are more confused or careless in their evaluations of belief than Westerners. It just means that East Asians and Westerners have somewhat different categories and practices of cognitive evaluation.

Sosa, for example, argues that for the experimental results to have the effect Weinberg, Nichols and Stich suggest they do, subjects would need to disagree about the answer to a question of the form: “Would anyone who satisfied condition C with regard to proposition $\langle p \rangle$ know that p or only believe it?” (2009, 107) Sosa doubts, however, that there is sufficient agreement on the contents of C or $\langle p \rangle$. He suggests that cultural differences may lead subjects to construct the relevant cases differently in imagination, with the result that the condition C – the condition important to knowledge (e.g., owning a car) – could be filled in differently. If subjects of different cultures import “different background assumptions about how likely it is that an American who has long owned an American car will continue to own a car and indeed an American car” (2009, 108), then the experimental results might register a difference in content, rather than a disagreement about knowledge.

Privileging and Denial differ in that the former allows that some of the empirically established diversity of judgment might involve the employment of legitimate alternative categories of cognitive evaluation rather than merely displaying the errors and confusions of the *hoi polloi*.

After thin-slicing, Privileging proceeds by insisting that it is only the concepts and categories of a certain group of people that count as evidence for our epistemological theories. It is our intuitions and our concepts that reflect the true nature of knowledge, epistemic justification or warrant, epistemic (or theoretical) rationality, etc. Other folks might employ different concepts and have different intuitions when evaluating cognition. We have no a priori reason to disparage those alternative categories of evaluation. They're just not the categories we are using or are interested in capturing. Privileging explains genuine diversity of judgment as difference without disagreement. Folks who employ different concepts of knowledge are no more disagreeing about the nature of knowledge than people who employ different concepts of bank. And as Sosa argues, "The fact that we value one commodity, called 'knowledge' or 'justification' among us, is no obstacle to our *also* valuing a *different* commodity, valued by some other community under that same label" (2009, 109). We want to know what knowledge or justification is. And if someone group of people uses 'knowledge' to designate something other than knowledge or 'justification' to designate something other than justification, that doesn't in the least undermine this project.

The Privileging option faces three challenges. None of them are devastating. But together they raise serious worries about its viability. First, the thin-slicing argument depends on a contentious semantic theory (Stich 2009, 233-236). Privileging grants that different people employ different concepts in their evaluation of cognition. But keep in mind that the epistemological project at issue here is "True nature." The goal is not to account for our epistemic concepts. It is to account for the nature and conditions of real epistemic categories, like knowledge, justification, warrant, etc. Given this project, epistemic conceptual diversity is not enough to guarantee epistemic diversity. According to a fairly standard semantic view, people with somewhat different concepts can nonetheless refer to the same thing (Kripke 1972, Putnam 1975). If people with very different ideas about what atoms are can all refer to atoms, then it seems plausible to suppose that people with somewhat different ideas about the nature and conditions of knowledge (or justification, etc.) can all refer to knowledge (or justification, etc.). This is because while the evidence supports some systematic diversity in people's epistemic judgments, it also finds considerable agreement. For example, Weinberg, Nichols and Stich found that the vast majority of all cultural groups agree that beliefs based on "special feelings" are not knowledge (2001, 430).

The second challenge for Privileging is to identify the class of people with the privileged epistemic categories. For any group of people, it's always possible that they won't share the same epistemic concepts and categories given that these concepts and categories are being thin-sliced. If relatively small, systematic differences in how people understand 'justification' make it the case that they are committed to different epistemic categories, then those with the privileged concepts had better have very similar understandings of justification (or knowledge, etc.). So who are the folks with the privileged concepts? Even if we restrict the privileged few to professional epistemologists - people who presumably have thought long and hard about basic

epistemic categories - the problem of diversity might survive. There might be systematic differences in how even epistemologists understand the most basic epistemic categories. A prominent defender of RAE, Ernest Sosa, makes this claim: "Notoriously, contemporary analytic epistemologists have disagreed among themselves, nearly all professors at colleges or universities, nearly all English-speaking Westerners . . ." (2009, 111). While Sosa downplays the import of this disagreement, it is hard to see how the privileged few whose intuitions count as evidence will be decided upon when not even all professional epistemologists with expertise in the area are going to make the cut. Privileging seems to unduly narrow the scope of epistemology.

The third challenge for Privileging is that it seems unable to provide a crucial kind of guidance to our cognitive endeavors. Philosophers are interested in knowledge because other things being equal, it's better to know than not know. Knowing that p is better than believing but not knowing that p. Philosophers are interested in justification because from a purely epistemological perspective, one ought not accept unjustified beliefs whereas one is permitted to accept justified beliefs. What one ought to believe can depend on many considerations - moral, pragmatic, aesthetic and epistemic. So the idea here is not that a theory of justification will identify those beliefs you ought to believe, all things considered. Rather, the idea is that a theory of justification will deliver reason-guiding or belief-guiding prescriptions that are significant but also appropriately qualified. To put it in terms of potential goals, epistemology seeks "Reason-guidance," not just "True nature."

Consider a situation in which groups G and G' have categories of cognitive evaluation that overlap significantly but that very occasionally result in different prescriptions. So although members of G and G' evaluate beliefs B2 - B1,000,000,000 in exactly the same way, they disagree about B1: members of G evaluate belief B1 positively, whereas members of G' evaluate belief B1 negatively. So the problem is: If members of G and G' are going to adopt a belief about this matter, what should they believe? This, it seems, is precisely the sort of question that epistemology is supposed to answer. But the proponent of Privileging seems forced to give a disappointing, wishy-washy answer: It is both epistemically justified and epistemically* unjustified* to accept B1. These are different categories of doxastic evaluation and there is no inconsistency in accepting that B1 is both justified and unjustified*. One might insist: But what should these folks believe? The proponent of Privileging is forced to say something like: All I can do is tell you about epistemology, and from an epistemic perspective, in that situation, one should believe B; but from some other normative perspective (e.g., from an epistemic* perspective), the answer might be different.

The Privileger interested in Reason-guidance seems committed to the idea that the only categories of cognitive evaluation that may legitimately be applied to him are his categories of cognitive evaluation; he is, after all, concerned with how he epistemically ought to reason or believe, not how he epistemically* (or epistemically**, etc.) ought to reason or believe. Principle (X) supposes this Privileging move is available to everyone.

(X) The only categories of cognitive evaluation that legitimately apply to S (i.e., that lead to prima facie reason-guiding direction) are S's categories of cognitive evaluation.

Principle (X) articulates a kind of normative xenophobia where the only norms that legitimately apply to a person are those that the person accepts. We take it that such a principle, when seen for what it is, is difficult to accept. As Stich points out, "unless one is inclined toward chauvinism or xenophobia in matters epistemic, it is hard to see why one would much care that a cognitive process one was thinking of invoking (or renouncing) accords with the set of evaluative notions that prevail in the society into which one happened to be born." (1990, 94) Given genuine diversity of categories of cognitive evaluation, the scope of epistemology narrows drastically for the proponent of Privileging: epistemological norms legitimately apply only to those who share the Privileger's categories of cognitive evaluation. And as we have seen, this group might be rather small. It might not even include all other professional epistemologists.

The Privileger might accept the narrowing of epistemology with aplomb. Sosa does this by apparently denying "Reason-guiding" as a legitimate goal of epistemology. He refers to "Reason-guiding" as epistemic casuistry, and asserts that though it may be of some use, "it is no part of the traditional problematic of epistemology" (2007a, 106). According to Sosa, the traditional problematic just is the ferreting out of intuitions by way of examined cases: "At least since Plato, philosophical analysis has relied on thought experiments as a way to test hypotheses about the nature and conditions of human knowledge . . ." (2009, 103). There is certainly nothing inconsistent about this approach to epistemology. But fair-minded, neutral observers to this debate might hope for more. They might recognize the fine consistency of an epistemology "for me and my like-minded friends" but rebel against the idea of spending their lives pursuing such a pinched and toothless project. They might hope for a more robust epistemology that applies to a wide range of people who employ similar but somewhat different categories of cognitive evaluation. There are two ways to broaden this project. Denial and Privileging involves narrowing the appropriate evidential base by counting only certain intuitions as legitimate. But there is another possibility. Rather than narrow the appropriate evidential base for an epistemological theory, we might widen it so as to include some scientific evidence. This won't make the disagreements disappear. But it might provide a base of evidence to make some informed choices about which intuitions are the right ones. This brings us to a moderate form of naturalism which takes the substantive evidence relevant to epistemological theorizing to include both intuitions and scientific evidence. But before we get to moderate naturalism, our preferred view, let's consider the opposite extreme, Radical Naturalistic Epistemology.

3. The case against Radical Naturalistic Epistemology

According to Radical Naturalistic Epistemology, the substantive evidence relevant to epistemological theorizing includes only scientific evidence and no intuitions. Quine famously articulated an approach to epistemology that is a form of RNE.

Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject. This human subject is accorded a certain experimentally controlled input -- certain patterns of irradiation in assorted frequencies, for instance -- and in the fullness of time the subject delivers as output a description of the three-dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology: namely, in order to see how evidence relates to theory, and in what ways one's theory of nature transcends any available evidence. (1969, 82-83)

Quine is not alone in seeking to jettison intuitions from epistemological practice.¹ Some experimental philosophers have also argued against employing intuitions as evidence because of their unreliability. Swain, Alexander and Weinberg (2008) argue that our intuitions about philosophical cases are subject to order effects. For example, they found that subjects previously presented with obvious cases of knowledge were significantly less likely to attribute knowledge in Gettier-style cases. Conversely, they found that subjects previously presented with cases of non-knowledge were significantly more likely to attribute knowledge in Gettier-style cases. As a result of these sorts of empirical considerations, they suggest that “philosophers who wish to continue relying on intuitions as evidence begin empirically investigating intuitions about their favorite thought-experiments to determine whether, and which, intuitions may be taken as evidence” (2008, 153-154). Somewhat more radically, Weinberg has argued that “the practice of philosophical appeal to intuition is not merely fallible but hopelessly so” (2007, 334). Such considerations raise the prospect that intuitions are too untrustworthy to count as substantive evidence for philosophical theorizing: “the problem with standard philosophical practice is that experimental evidence seems to point to the unsuitability of intuitions to serve as evidence at all” (Alexander and Weinberg 2007, 63).

How radical is the prospect of banning intuitions as evidence from epistemology? Less radical than some have thought. It is a fairly limited claim. Radical Naturalistic Epistemology is not appropriate if we take the goal of epistemology to be capturing our intuitions or accounting for the implicit theories or concepts responsible for our intuitions. We are assuming, along with many analytic epistemologists, that the goal of epistemology is to characterize the true nature of an epistemological category or provide epistemic guidance to our cognitive lives. So RNE bans intuitions as evidence relevant to a very specific sort of theory. RNE is perfectly consistent with intuitions playing a crucial evidential role in other kinds of theorizing. The right way to understand the disagreement between the analytic epistemologist and the naturalistic epistemologist is as a disagreement about how to properly do epistemology. It is not a

¹ Although he does not comment on the relevance of empirical considerations for epistemological practice, Jaakko Hintikka has recently given some spirited arguments in support of the claim that in philosophy generally, appeals to intuitions “are usually without any respectable theoretical foundation” (1999, p. 127). Hintikka goes on to suggest, “only half-jokingly,” that “editors of philosophy journals agree to a moratorium on all papers in which intuitions are appealed to, unless the basis of those appeals is made explicit” (1999, p. 147).

disagreement about how to properly do logic or math or science or how to reason about everyday affairs, such as which neighborhood restaurant has the best sushi. To keep this clear, let's distinguish three sorts of theory.

1. Meta-epistemology: How to properly do epistemology. This includes the question of what counts as evidence for epistemological theorizing.
2. Epistemology: The nature of knowledge, justification, etc., and how we ought to guide our cognitive lives.
3. Other: Math, science, everyday affairs, etc.

The proponent of RNE and RAE disagree about (1), how to properly do epistemology. By itself, this has no implications for (3), for what the right views are about set theory or evolution or which neighborhood restaurant has the best sushi. (1) does, of course, tell us how to come up with theories of type (2). And the resulting epistemological theories will have implications for how to properly do logic or math or science or how to reason about everyday affairs. And those implications are fair game - if some of them are false that's a serious problem for the theory. But these implications don't necessarily follow from our meta-epistemology. It is worth stressing this last point. The Radical Naturalized Epistemologist thinks that intuitions should play no role in (2), epistemological theorizing. What sort of epistemological theory is likely to result from RNE? We don't know; naturalized epistemologists no more speak with one voice about this than do analytic epistemologists. But it's perfectly possible for such a theory to yield the epistemic judgment that intuitions are an important and legitimate source of evidence in mathematics, logic, science or everyday reasoning. It's even possible that a naturalized theory would imply that our epistemic intuitions are as solid a foundation of evidence for epistemology as observations are for science. This would result in the implosion of RNE: it would turn out to be false by its own standards. We are not suggesting that this is likely. But clarity about the limited nature of RNE renders some arguments against naturalism otiose. Sosa, for example, notes that "intuition is ubiquitous across the vast body of anyone's knowledge" (2007b, 60). But this is no direct complaint against RNE, which bans reliance on intuitions only from epistemological theorizing. Others have argued that RNE-style rejections of intuition would constitute a sort of "intellectual suicide" (Bonjour 1998, 5). According to Bonjour, a philosophical method which denied us the use of a priori inferences (which depend on pure rational thought or intuitions about propositions and the connections between them) would rob us of the ability to justify the conclusions of any argument. Yet it is difficult to see how this could be so on RNE. For the view advocates the rejection of intuitions in epistemological theorizing, not in the justification of certain general lines of argumentation. The refusal to use intuitions as evidence in epistemological theorizing, then, does not lead to intellectual Armageddon. And yet we do not endorse RNE.

To properly assess RNE, let's focus on an example. When we first read Gettier's paper, we both had the intuition that p (Smith does not know that Jones owns a Ford or Brown is in Barcelona). We pondered the case carefully for some years; we have vetted our judgment that

p by assessing whether it coheres with our other views about knowledge and justification. After this process, we believe that p. We can distinguish three different states:

- (a) the original non-discursive judgment that p,
- (b) the judgment that p that we vetted via a rigorous discursive process of reflective equilibrium,
- (c) and the settled belief that p.

In order to fully understand RNE - and any view on this issue, in fact - we need to know which of these judgments are expressions of an intuition. If the intuition is only the original, non-discursive judgment that p, then RNE is not so radical. The proponent of RNE can argue that only after a reasonable vetting process, once one has a settled belief that p, does p count as evidence for an epistemological theory. If, however, all three of these states count as the intuition that p, then RNE is much more radical. It rejects a much larger range of states as potential evidence. So which of these states count as intuitions? There is no settled answer. Different philosophers adopt different views. Some philosophers argue that intuitions are simply beliefs (Lewis 1983). Some advocate a disjunctive view, according to which intuitions are either beliefs or tendencies to accept certain propositions as true (Van Inwagen 1987). And yet others argue that intuitions are a *sui generis* kind of propositional attitude, distinct from belief (Sosa 2007, Bealer 1998).

We have no desire to enter this particular fray. 'Intuition' as used by philosophers has a very specialized meaning. And so which of these sorts of states we decide to call 'intuition' seems to us a pointless exercise of linguistic legislation. The substantive issue here is whether RNE, under any fairly conventional understanding of 'intuition', deserves our allegiance. And we think it does not. From our perspective, even the weakest version of RNE - one that takes only states like (a) to be intuitions - is not tenable. And so any stronger version of RNE, one which precludes an even larger set of evidence, will be untenable as well.

The problem with RNE is that we see three reasons to allow intuitions to play a significant role in epistemological theorizing. There may be more, but we will focus on just these three. First, science covers a lot of ground. So choices must be made: Which parts of science are relevant to epistemological theorizing? We don't see how such decisions can be made without some fairly reliable intuitions about the nature of epistemological categories and the content of epistemological prescriptions. So intuitions provide direction to the naturalist's theorizing. Second, our epistemic intuitions deserve our allegiance because they have a record of success. They direct our cognitive lives, and we end up with lots of useful and true (or at least roughly true) beliefs about the world. Someone guiding their cognitive lives by these intuitions could do considerably worse. So even if our intuitions do not always deliver correct epistemic judgments, they deliver good enough epistemic judgments often enough to help us get along in the world quite well. And as a result, it seems reasonable enough to take an intuition that p to be at least *prima facie* evidence for p. The third reason for thinking that our intuitions are a

legitimate source of evidence for our epistemological theories is that we know we can use them to good effect. Many naturalists seek an epistemological theory that can provide genuine reason-guiding prescriptions. As a result, most naturalists would agree on an “ought implies can” restriction on epistemological theorizing: The correct epistemological theory should not make demands on reasoners they cannot meet (Kornblith 2002; Goldman 1999). Indeed, some naturalists would insist on a stronger restriction: Other things being equal, the correct epistemological theory should make demands that are easier to meet (Bishop & Trout 2005). Say what you will about our intuitions, but we know that the ones we use everyday meet these requirements. If we put these points together, it seems reasonable to count our intuitions as a source, but not the only source, of evidence relevant to our epistemological theories.

4. Moderate Naturalism

The failure of the extreme positions brings to the middle, to accepting both intuitions and science as legitimate sources of evidence for epistemological theorizing. On the one hand, intuitions by themselves are too variable to serve as the only source of evidence for our epistemological theorizing. A fund of solid scientific evidence dilutes the contentious evidence and gives us a foundation on which to make principled choices about which contentious intuitions to accept and which to reject. On the other hand, science needs intuitions in order to get epistemological theorizing started. Intuitions provide reliable prima facie direction so that the epistemologist may home in on the nature of epistemological categories and the content of epistemological prescriptions.

The moderate position covers a huge conceptual terrain. In theorizing about epistemology, there are many ways to define and use intuitions, there are many different areas of science one might use as evidence, and there are many ways to weigh and combine these various sources of evidence. Sorting out these issues is not our task here (though to see how one of us addresses these issues, see Bishop & Trout 2005). Our purpose here has been to argue that it is a mistake to suppose that epistemological theorizing can proceed fruitfully using only intuitions or only science as a source of evidence. One might wonder: Why suppose that we have made a case for moderate naturalism rather than moderate analytic epistemology? After all, both radical positions have been defeated. Why does the moderate position favor the naturalist? In the end, we are much more concerned about the truth of our position than the name of our position. But there is a good reason to suppose that the moderate position is a kind of naturalism. First, given how epistemology is currently practiced, most analytic epistemologists are actually Radical Analytic Epistemologists. The theories of analytic epistemology - the theories that tell us about the nature of knowledge, justification, warrant, rationality, etc. - are not based on any scientific evidence. The substantive evidence on which they are based consists entirely of intuitions. That’s not to say that all analytic epistemologists deny in principle the potential relevance of scientific evidence (Sosa 2010; Feldman 2001). But as a matter of fact, they don’t rely on such evidence in building their theories. Second, most naturalists have always relied on intuitions for direction. On this point, we agree with many critics of naturalism. As Mark Kaplan has noted, “the naturalist’s attempt to show the errors of aprioristic methodology depends for its success on consulting, and finding naturalist arguments

in accord with, the very sorts of armchair intuitions whose advice the naturalists would have us ignore” (1994, 360). So even according to critics of naturalism, naturalists have always relied on intuitions - even though they have occasionally derided them as unreliable. So the reason to take the moderate position to be naturalism is simply due to an accurate reading of contemporary epistemology: the moderate position is naturalism.

The proponent of analytic epistemology might be tempted to adopt a moderate position by making science relevant to epistemology only at the margins. For example, she might argue that an “ought implies can” restriction is enough to make her a moderate naturalist and so avoid the extreme of RAE. But this restriction “at the margins” won’t do. That’s because the argument against RAE will also work against a less radical version of analytic epistemology that takes scientific evidence to be relevant only to an “ought implies can” limitation. The epistemic diversity that causes problems for RAE is not limited to cases in which people use superhuman reasoning powers. People apply different standards of epistemic evaluation in everyday cases of reasoning and belief. The moderate naturalist needs scientific evidence that will overcome the epistemic diversity problem - that will provide an evidential base on which to make principled choices about which contentious intuitions to accept and which to reject. This is a robust naturalism indeed.

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