PHILOSOPHICAL TOPICS
VOL. 29, NOS. 1 & 2, SPRING AND FALL 2001

Normativity and Epistemic Intuitions

Jonathan M. Weinberg
Indiana University

Shaun Nichols
College of Charleston

Stephen Stich
Rutgers University

I. INTRODUCTION

In this paper we propose to argue for two claims. The first is that a sizable group of epistemological projects—a group which includes much of what has been done in epistemology in the analytic tradition—would be seriously undermined if one or more of a cluster of empirical hypotheses about epistemic intuitions turns out to be true. The basis for this claim will be set out in section 2. The second claim is that, while the jury is still out, there is now a substantial body of evidence suggesting that some of those empirical hypotheses *are* true. Much of this evidence derives from an ongoing series of experimental studies of epistemic intuitions that we have been conducting. A preliminary report on these studies will be presented in section 3. In light of these studies, we think it is incumbent on those who pursue the epistemological projects in question to either explain why the truth of the hypotheses does not undermine their projects, or to say why, in light of the evidence we will present, they nonetheless assume that the hypotheses are

false. In section 4, which is devoted to Objections and Replies, we'll consider some of the ways in which defenders of the projects we are criticizing might reply to our challenge. Our goal is not to offer a conclusive argument demonstrating that the epistemological projects we will be criticizing are untenable. Rather, our aim is to shift the burden of argument. For far too long, epistemologists who rely heavily on epistemic intuitions have proceeded as though they could simply ignore the empirical hypotheses we will set out. We will be well satisfied if we succeed in making a plausible case for the claim that this approach is no longer acceptable.

To start, it will be useful to sketch a brief—and perhaps somewhat idiosyncratic—taxonomy of epistemological projects. With the aid of this taxonomy we will try to "locate in philosophical space" (as Wilfrid Sellars used to say) those epistemological projects which, we maintain, are threatened by the evidence we will present. There are at least four distinct, though related, projects that have occupied the attention of epistemologists. Following Richard Samuels,[1] we'll call them the Normative Project, the Descriptive Project, the Evaluative Project, and the Ameliorative Project.

The Normative Project, which we're inclined to think is the most philosophically central of the four, attempts to establish norms to guide our epistemic efforts. Some of these norms may be explicitly regulative, specifying which ways of going about the quest for knowledge should be pursued and which should not. This articulation of regulative norms is one of the more venerable of philosophical undertakings, going back at least to Descartes's *Regulae* and evident in the work of Mill, Popper, and many other important figures in the history of philosophy, and it continues in philosophy today. For example, when Alvin Goldman chastises internalism for being unable to provide us with "Doxastic Decision Principles," he is challenging the ability of internalism to pull its weight in this aspect of the Normative Project.[2] The Normative Project also aims to articulate what might be called *valuational* norms, which attempt to answer questions like: What is our epistemic good? and How should we prefer to structure our doxastic lives? One may not be able to generate regulative principles from the answers provided; rather, the answers tell us at what target the regulative principles should aim.

The Descriptive Project can have a variety of targets, the two most common being epistemic concepts and epistemic language. When concepts are the target, the goal is to describe (or "analyze") the epistemic concepts that some group of people actually invoke. When pursued by epistemologists (rather than linguists or anthropologists), the group in question is typically characterized rather vaguely by using the first-person plural. They are "our" concepts, the ones that "we" use. Work in this tradition has led to a large literature attempting to analyze concepts like knowledge, justification, warrant, and rationality.[3] When language is the focus of the Descriptive

Project, the goal is to describe the way some group of people use epistemic language or to analyze the meaning of their epistemic terms. Here again, the group is almost invariably "us."

Many epistemologists think that there are important links between the Normative and Descriptive Projects. Indeed, we suspect that these (putative) links go a long way toward explaining why philosophers think the Descriptive Project is so important. In epistemology, knowledge is "the good stuff" and to call a belief an instance of knowledge is to pay it one of the highest compliments an epistemologist can bestow.[4] Thus terms like "knowledge," "justification," "warrant," etc., and the concepts they express are themselves plausibly regarded as implicitly normative. Moreover, many philosophers hold that sentences invoking epistemic terms have explicitly normative consequences. So, for example, "S's belief that p is an instance of knowledge" might plausibly be taken to entail "*Ceteris paribus,* S ought to believe that p" or perhaps "*Ceteris paribus,* it is a good thing for S to believe that p."[5] For reasons that will emerge, we are more than a bit skeptical about the alleged links between the Descriptive and Normative Projects. For the time being, however, we will leave the claim that the two projects are connected unchallenged.

The Evaluative Project tries to assess how well or poorly people's actual belief-forming practices accord with the norms specified in the Normative Project. To do this, of course, another sort of descriptive effort is required. Before we can say how well or poorly people are doing at the business of belief formation and revision, we have to say in some detail how they actually go about the process of belief formation and revision.[6] The Ameliorative Project presupposes that we don't all come out with the highest possible score in the assessment produced by the Evaluative Project, and asks how we can improve the way we go about the business of belief formation. In this paper our primary focus will be on the Normative Project and on versions of the Descriptive Project which assume that the Descriptive and Normative Projects are linked in something like the way sketched above.

II. INTUITION-DRIVEN ROMANTICISM AND THE NORMATIVITY PROBLEM

A. EPISTEMIC ROMANTICISM AND INTUITION-DRIVEN ROMANTICISM

A central question that the Normative Project tries to answer is: *How ought we to go about the business of belief formation and revision?* How are we to go about finding an answer to this question? And once an answer has been proposed, how are we to assess it? If two theorists offer different answers,

how can we determine which one is better? Philosophers who have pursued the Normative Project have used a variety of methods or strategies. In this section we want to begin by describing one very influential family of strategies.

The family we have in mind belongs to a larger group of strategies which (just to be provocative) we propose to call *Epistemic Romanticism*. One central idea of nineteenth-century Romanticism was that our real selves, the essence of our identity, is implanted within us, and that to discover who we really are we need but let that real identity emerge. Epistemic Romanticism assumes something rather similar about epistemic norms. According to Epistemic Romanticism, knowledge of the correct epistemic norms (or information that can lead to knowledge of the correct norms) is implanted within us in some way, and with the proper process of self-exploration we can discover them. As we read him, Plato was an early exponent of this kind of Romanticism about matters normative (and about much else besides). So *Epistemic Platonism* might be another (perhaps equally provocative) label for this group of strategies for discovering or testing epistemic norms.

There are various ways in which the basic idea of Epistemic Romanticism can be elaborated. The family of strategies that we want to focus on all accord a central role to what we will call *epistemic intuitions*. Thus we will call this family of strategies *Intuition-Driven Romanticism* (or IDR). As we use the notion, an epistemic intuition is simply a spontaneous judgment about the epistemic properties of some specific case—a judgment for which the person making the judgment may be able to offer no plausible justification. To count as an Intuition-Driven Romantic strategy for discovering or testing epistemic norms, the following three conditions must be satisfied:

(i) The strategy must take epistemic intuitions as data or input. (It can also exploit various other sorts of data.)

(ii) It must produce, as output, explicitly or implicitly normative claims or principles about matters epistemic. Explicitly normative claims include regulative claims about how we ought to go about the business of belief formation, claims about the relative merits of various strategies for belief formation, and evaluative claims about the merits of various epistemic situations. Implicitly normative claims include claims to the effect that one or another process of belief formation leads to justified beliefs or to real knowledge or that a doxastic structure of a certain kind amounts to real knowledge.

(iii) The output of the strategy must depend, in part, on the epistemic intuitions it takes as input. If provided with significantly different intuitions, the strategy must yield significantly different output.[7]

Perhaps the most familiar examples of Intuition-Driven Romanticism are various versions of the reflective equilibrium strategy in which (to paraphrase Goodman slightly) "a [normative] rule is amended if it yields an inference we are [intuitively] unwilling to accept [and] an inference is rejected if it violates a [normative] rule we are [intuitively] unwilling to amend."[8] In a much discussed paper called "Can Human Irrationality Be Experimentally Demonstrated," L. J. Cohen proposes a variation on Goodman's strategy as a way of determining what counts as rational or normatively appropriate reasoning.[9] It is of some importance to note that there are many ways in which the general idea of a reflective equilibrium process can be spelled out. Some philosophers, including Cohen, advocate a "narrow" reflective equilibrium strategy. Others advocate a "wide" reflective equilibrium strategy. And both of these alternatives can be elaborated in various ways.[10] Moreover, the details are often quite important since different versions of the reflective equilibrium strategy may yield different outputs, even when provided with exactly the same input.

Another example of the IDR strategy can be found in Alvin Goldman's important and influential book, *Epistemology and Cognition* (1986). A central goal of epistemology, Goldman argues, is to develop a theory that will specify which of our beliefs are epistemically justified and which are not, and a fundamental step in constructing such a theory will be to articulate a system of rules or principles evaluating the justificatory status of beliefs. These rules, which Goldman calls *J-rules*, will specify permissible ways in which cognitive agents may go about the business of forming or updating their beliefs. They "permit or prohibit beliefs, directly or indirectly, as a function of some states, relations, or processes of the cognizer."[11] But, of course, different theorists may urge different and incompatible sets of J-rules. So in order to decide whether a proposed system of J-rules is correct, we must appeal to a higher criterion—Goldman calls it "a criterion of rightness"—which will specify a "set of conditions that are necessary and sufficient for a set of J-rules to be right."[12] But now the theoretical disputes emerge at a higher level, for different theorists have suggested very different criteria of rightness. Indeed, as Goldman notes, an illuminating taxonomy of epistemological theories can be generated by classifying them on the basis of the sort of criterion of rightness they endorse. So how are we to go about deciding among these various criteria of rightness? The answer, Goldman maintains, is that the correct criterion of rightness is the one that comports with the conception of justification that is "embraced by everyday thought and language."[13] To test a criterion, we consider the judgments it would entail about specific cases, and we test these judgments against our "pretheoretic intuition." "A criterion is supported to the extent that implied judgments accord with such intuitions and weakened to the extent that they do not."[14]

The examples we have mentioned so far are hardly the only examples of Intuition-Driven Romanticism. Indeed, we think a plausible case can be made that a fair amount of what goes on in normative epistemology can be classified as Intuition-Driven Romanticism. Moreover, to the extent that it is assumed to have normative implications, much of what has been written in descriptive epistemology in recent decades also counts as Intuition-Driven Romanticism. For example, just about all of the vast literature that arose in response to Gettier's classic paper uses intuitions about specific cases to test proposed analyses of the concept of knowledge.[15]

For many purposes, the details of an IDR strategy—the specific ways in which it draws inferences from intuitions and other data—will be of enormous importance. But since our goal is to raise a problem for all IDR strategies, the exact details of how they work will play no role in our argument. Thus, for our purposes, an IDR strategy can be viewed as a "black box" which takes intuitions (and perhaps other data) as input and produces implicitly or explicitly normative claims as output. The challenge we are about to raise is, we claim, a problem for IDR accounts no matter what goes on within the black box.

B. THE NORMATIVITY PROBLEM

Reflective equilibrium strategies and other Intuition-Driven Romantic strategies all yield as outputs claims that putatively have normative force. These outputs tell us how people ought to go about forming and revising their beliefs, which belief-forming strategies yield genuinely justified beliefs, which beliefs are warranted, which count as real knowledge rather than mere opinion, etc. But there is a problem lurking here—we'll call it the *Normativity Problem:* What reason is there to think that the output of one or another of these Intuition-Driven Romantic strategies has real (as opposed to putative) normative force? Why should we care about the normative pronouncements produced by these strategies? Why should we try to do what these outputs claim we ought to do in matters epistemic? Why, in short, should we take any of this stuff seriously?

We don't think that there is any good solution to the Normativity Problem for Intuition-Driven Romanticism or indeed for any other version of Romanticism in epistemology. And because there is no solution to the Normativity Problem, we think that the entire tradition of Epistemic Romanticism has been a very bad idea. These, obviously, are very big claims and this is not the place to mount a detailed argument for all of them. We do, however, want to rehearse one consideration, first raised in Stich's book, *The Fragmentation of Reason.*[16] We think it lends some plausibility to the claim that satisfying solutions to the Normativity Problem for Intuition-Driven Romanticism are going to be hard to find. It will also help to motivate the empirical studies we will recount in the section to follow.

What Stich noted is that the following situation seems perfectly possible. There might be a group of people who reason and form beliefs in ways that are significantly different from the way we do. Moreover, these people might also have epistemic intuitions that are significantly different from ours. More specifically, they might have epistemic intuitions which, when plugged into your favorite Intuition-Driven Romantic black box, yield the conclusion that *their* strategies of reasoning and belief formation lead to epistemic states that are rational (or justified, or of the sort that yield genuine knowledge—pick your favorite normative epistemic notion here). If this is right, then it looks like the IDR strategy for answering normative epistemic questions might sanction any of a wide variety of regulative and valuational norms. And that sounds like bad news for an advocate of the IDR strategy, since the strategy doesn't tell us what we really want to know. It doesn't tell us how we should go about the business of forming and revising our beliefs. One might, of course, insist that the normative principles that should be followed are the ones that are generated when we put *our* intuitions into the IDR black box. But it is less than obvious (to put it mildly) how this move could be defended. Why should we privilege our intuitions rather than the intuitions of some other group?

One objection that was occasionally raised in response to this challenge focused on the fact that the groups conjured in Stich's argument are just philosophical fictions.[17] While it may well be logically possible that there are groups of people whose reasoning patterns and epistemic intuitions differ systematically from our own, there is no reason to suppose that it is nomologically or psychologically possible. And without some reason to think that such people are psychologically possible, the objection continued, the thought experiment does not pose a problem that the defender of the IDR strategy needs to take seriously. We are far from convinced by this objection, though we are prepared to concede that the use of nomologically or psychologically impossible cases in normative epistemology raises some deep and difficult issues. Thus, for argument's sake, we are prepared to concede that a plausible case might be made for privileging normative claims based on actual intuitions over normative claims based on intuitions that are merely logically possible. But what if the people imagined in the thought experiment are not just logically possible, but psychologically possible? Indeed, what if they are not merely psychologically possible but real—and to all appearances normal and flourishing? Under those circumstances, we maintain, it is hard to see how advocates of an IDR strategy can maintain that their intuitions have any special standing or that the normative principles these intuitions generate when plugged into their favorite IDR black box should be privileged over the normative principles that would be generated if we plugged the other people's intuitions into the same IDR black box. In the section to follow we will argue that these "what ifs" are not *just*

"what ifs." There really are people—normal, flourishing people—whose epistemic intuitions are systematically different from "ours."

III. CULTURAL VARIATION IN EPISTEMIC INTUITIONS

A. NISBETT AND HAIDT: SOME SUGGESTIVE EVIDENCE

Our suspicion that people like those imagined in Stich's thought experiment might actually exist was first provoked by the results of two recent research programs in psychology. In one of these, Richard Nisbett and his collaborators have shown that there are large and systematic differences between East Asians and Westerners[18] on a long list of basic cognitive processes, including perception, attention, and memory. These groups also differ in the way they go about describing, predicting, and explaining events; in the way they categorize objects; and in the way they revise beliefs in the face of new arguments and evidence. This work makes it very plausible that the first part of Stich's thought-experiment is more than just a logical possibility. There really are people whose reasoning and belief-forming strategies are very different from ours. Indeed, there are over a billion of them!

Though space does not permit us to offer a detailed account of the differences that Nisbett and his colleagues found, a few brief notes will be useful in motivating the studies we will describe later is this section. According to Nisbett and his colleagues, the differences "can be loosely grouped together under the heading of holistic vs. analytic thought." Holistic thought, which predominates among East Asians, is characterized as "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." Analytic thought, the prevailing pattern among Westerners, is characterized as "involving detachment of the object from its context, a tendency to focus on attributes of the object in order to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behavior."[19] One concomitant of East Asian holistic thought is the tendency to focus on chronological rather than causal patterns in describing and recalling events. Westerners, by contrast, focus on causal patterns in these tasks.[20] Westerners also have a stronger sense of agency and independence, while East Asians have a much stronger commitment to social harmony. In East Asian society, the individual feels very much a part of a large and complex social organism where behavioral prescriptions must be followed and role obligations adhered to scrupulously.[21]

The second research program that led us to suspect there might actually be people like those in Stich's thought experiment was the work Jonathan

Haidt and his collaborators.[22] These investigators were interested in exploring the extent to which moral intuitions about events in which no one is harmed track judgments about disgust in people from different cultural and socioeconomic groups. For their study they constructed a set of brief stories about victimless activities that were intended to trigger the emotion of disgust. They presented these stories to subjects using a structured interview technique designed to determine whether the subjects found the activities described to be disgusting and also to elicit the subjects' moral intuitions about the activities. As an illustration, here is a story describing actions which people in all the groups studied found (not surprisingly) to be quite disgusting:

> A man goes to the supermarket once a week and buys a dead chicken. But before cooking the chicken, he has sexual intercourse with it. Then he cooks it and eats it.

The interviews were administered to both high and low socioeconomic status (SES) subjects in Philadelphia (USA) and in two cities in Brazil. Perhaps the most surprising finding in this study was that there are large differences in moral intuitions between social classes. Indeed, in most cases the difference between social classes was significantly greater than the difference between Brazilian and American subjects of the same SES. Of course we haven't yet told you what the differences in moral intuitions were, though you should be able to predict them by noting your own moral intuitions. (Hint: If you are reading this article, you count as high SES.) Not to keep you in suspense, low SES subjects tend to think that the man who has sex with the chicken is doing something that is seriously morally wrong; high SES subjects don't. Much the same pattern was found with the other scenarios used in the study.

B. FOUR HYPOTHESES

For our purposes, Haidt's work, like Nisbett's, is only suggestive. Nisbett gives us reason to think that people in different cultural groups exploit very different belief-forming strategies. Haidt's work demonstrates that people in different SES groups have systematically different moral intuitions. Neither investigator explored the possibility that there might be differences in *epistemic* intuitions in different groups. However, the results they reported were enough to convince us that the following pair of hypotheses *might* be true, and that it was worth the effort to find out:

Hypothesis 1: Epistemic intuitions vary from culture to culture.
Hypothesis 2: Epistemic intuitions vary from one socioeconomic group to another.

To these two experimentally inspired hypotheses we added two more that were suggested by anecdotal rather than experimental evidence. It has often

seemed to us that students' epistemic intuitions change as they take more philosophy courses, and we have often suspected that we and our colleagues were, in effect, teaching neophyte philosophers to have intuitions that are in line with those of more senior members of the profession. Or perhaps we are not modifying intuitions at all but simply weeding out students whose intuitions are not mainstream. If either of these is the case, then the intuitions that "we" use in our philosophical work are not those of the man and woman in the street, but those of a highly trained and self-selecting community. These speculations led to:

Hypothesis 3: Epistemic intuitions vary as a function of how many philosophy courses a person has had.

It also sometimes seems that the order in which cases are presented to people can have substantial effects on people's epistemic intuitions. This hunch is reinforced by some intriguing work on neural networks suggesting that a variety of learning strategies may be "path dependent."[23] If this hunch is correct, the pattern of intuitions that people offer on a series of cases might well differ systematically as a function of the order in which the cases are presented. This suggested our fourth hypothesis:

Hypothesis 4: Epistemic intuitions depend, in part, on the order in which cases are presented.

Moreover, it might well be the case that some of the results of order effects are very hard to modify.[24]

If any one of these four hypotheses turns out to be true then, we maintain, it will pose a serious problem for the advocate of Intuition-Driven Romanticism. If all of them are true, then it is hard to believe that any plausible case can be made for the claim that the normative pronouncements of Intuition-Driven Romanticism have real normative force—that they are norms that we (or anyone else) should take seriously.

C. SOME EXPERIMENTS EXPLORING CULTURAL VARIATION IN EPISTEMIC INTUITIONS

Are any of these hypotheses true? To try to find out we have been conducting a series of experiments designed to test Hypotheses 1 and 2. While the results we have so far are preliminary, they are sufficient, we think, to at least shift the burden of argument well over in the direction of the defender of IDR strategies. What our results show, we believe, is that the advocates of IDR can no longer simply ignore these hypotheses or dismiss them as implausible, for there is a growing body of evidence which suggests that they might well be true.

In designing our experiments, we were guided by three rather different considerations. First, we wanted our intuition probes—the cases that we

would ask subjects to judge—to be similar to cases that have actually been used in the recent literature in epistemology. Second, since the findings reported by Nisbett and his colleagues all focused on differences between East Asians (henceforth, EAs) and European Americans (henceforth, Ws, for "Westerners"), we decided that would be the obvious place to look first for differences in epistemic intuitions. Third, since Nisbett and his colleagues argue that Ws are significantly more individualistic than EAs, who tend to be much more interdependent and "collectivist" and thus much more concerned about community harmony and consensus, we tried to construct some intuition probes that would tap into this difference. Would individualistic Ws, perhaps, be more inclined to attribute knowledge to people whose beliefs are reliably formed by processes that no one else in their community shares? The answer, it seems, is yes.

Truetemp Cases

An issue of great moment in recent analytic epistemology is the internalism/externalism debate. Internalism, with respect to some epistemically evaluative property, is the view that *only* factors within an agent's introspective grasp can be relevant to whether the agent's beliefs have that property. Components of an agent's doxastic situation available to introspection are internalistically kosher; other factors beyond the scope of introspection, such as the reliability of the psychological mechanisms that actually produced the belief, are epistemically external to the agent. Inspired by Lehrer,[25] we included in our surveys a number of cases designed to explore externalist/internalist dimensions of our subjects' intuitions. Here is one of the questions we presented to our subjects, all of whom were undergraduates at Rutgers University.[26]

> One day Charles is suddenly knocked out by a falling rock, and his brain becomes re-wired so that he is always absolutely right whenever he estimates the temperature where he is. Charles is completely unaware that his brain has been altered in this way. A few weeks later, this brain re-wiring leads him to believe that it is 71 degrees in his room. Apart from his estimation, he has no other reasons to think that it is 71 degrees. In fact, it is at that time 71 degrees in his room. Does Charles really know that it was 71 degrees in the room, or does he only believe it?
>
> REALLY KNOWS ONLY BELIEVES

Although Charles's belief is produced by a reliable mechanism, it is stipulated that he is completely unaware of this reliability. So his reliability is epistemically external. Therefore, to the extent that a subject population is unwilling to attribute knowledge in this case, we have evidence that the

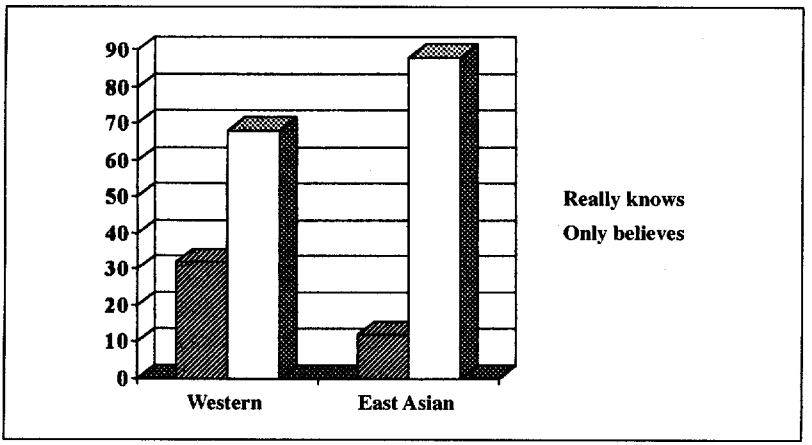

FIGURE 1: Individualistic Truetemp Case

group's "folk epistemology" may be internalist. We found that while both groups were more likely to deny knowledge, EA subjects were much more likely to deny knowledge than were their W classmates. The results are shown in figure 1.[27]

After finding this highly significant difference, we began tinkering with the text to see if we could construct other "Truetemp" cases in which the difference between the two groups would disappear. Our first thought was to replace the rock with some socially sanctioned intervention. The text we used was as follows:

> One day John is suddenly knocked out by a team of well-meaning scientists sent by the elders of his community, and his brain is re-wired so that he is always absolutely right whenever he estimates the temperature where he is. John is completely unaware that his brain has been altered in this way. A few weeks later, this brain re-wiring leads him to believe that it is 71 degrees in his room. Apart from his estimation, he has no other reasons to think that it is 71 degrees. In fact, it is at that time 71 degrees in his room. Does John really know that it was 71 degrees in the room, or does he only believe it?
>
> REALLY KNOWS ONLY BELIEVES

As we had predicted, the highly significant difference between the two groups disappeared. The results are shown in figure 2.

Encouraged by this finding we constructed yet another version of the "Truetemp" case in which the mechanism that reliably leads to a true belief is not unique to a single individual, but rather is shared by everyone else in the community. The intuition probe read as follows:

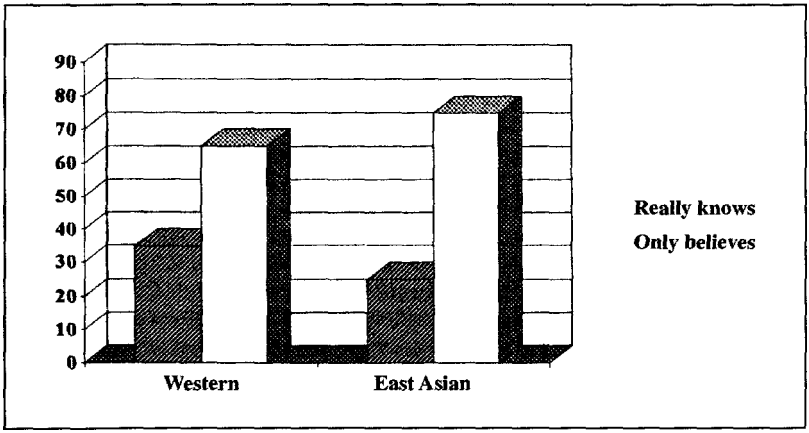

FIGURE 2: The Elders Version

The Faluki are a large but tight knit community living on a remote island. One day, a radioactive meteor strikes the island and has one significant effect on the Faluki—it changes the chemical make-up of their brains so that they are always absolutely right whenever they estimate the temperature. The Faluki are completely unaware that their brains have been altered in this way. Kal is a member of the Faluki community. A few weeks after the meteor strike, while Kal is walking along the beach, the changes in his brain lead him to believe that it is 71 degrees where he is. Apart from his estimation, he has no other reasons to think that it is 71 degrees. In fact, it is at that time exactly 71 degrees where Kal is. Does Kal really know that it is 71 degrees, or does he only believe it?

REALLY KNOWS ONLY BELIEVES

As predicted, on this case too there was no significant difference between Ws and EAs (see fig. 3).

Intriguingly, though the difference is not statistically significant, the percentage of EAs who answered "Really Knows" in this case was *greater* than the percentage of Ws who gave that answer, reversing the pattern in the individualistic "hit by a rock" case. Figure 4, which is a comparison of the three Truetemp cases, illustrates the way in which the large difference between Ws and EAs in the Individualistic version disappears in the Elders version and looks to be reversing direction in the Faluki version.

Gettier Cases

A category of examples that has loomed large in the recent epistemology literature are "Gettier cases," in which a person has good (though, as it

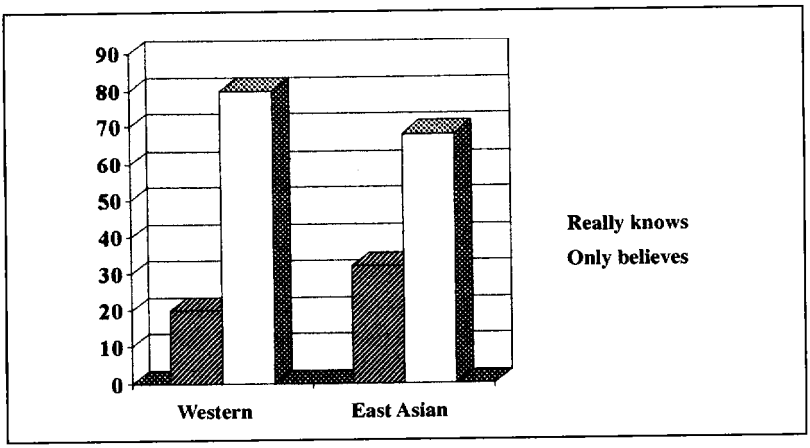

FIGURE 3: Community Wide Truetemp Case ("Faluki")

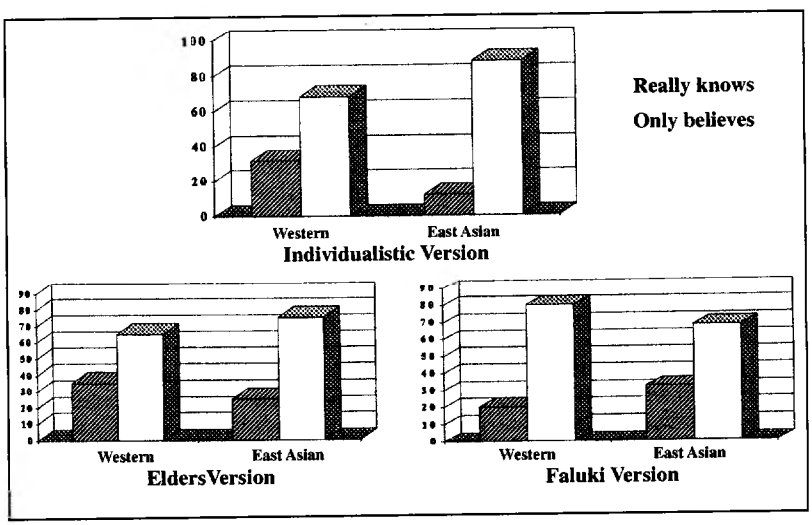

FIGURE 4: Comparison of Truetemp Cases

happens, false, or only accidentally true, or in some other way warrant deprived) evidence for a belief which is true. These cases are, of course, by their very construction in many ways quite similar to unproblematic cases in which a person has good and true evidence for a true belief. As Norenzayan and Nisbett have shown, EAs are more inclined than Ws to make categorical judgments on the basis of similarity. Ws, on the other hand, are more disposed to focus on causation in describing the world and classifying things.[28] In a large class of Gettier cases, the evidence that

causes the target to form a belief turns out to be false. This suggest that EAs might be much less inclined than Ws to withhold the attribution of knowledge in Gettier cases. And, indeed, they are.

The intuition probe we used to explore cultural differences on Gettier cases was the following:

> 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?
>
> REALLY KNOWS ONLY BELIEVES

The striking finding in this case is that a large majority of Ws give the standard answer in the philosophical literature, viz., "Only Believes." But among EAs this pattern is actually *reversed*! A majority of EAs say that Bob really knows. The results are shown in figure 5.

Evidence from Another Ethnic Group

The experiments we have reported thus far were done in lower division classes and large lectures at Rutgers. Since Rutgers is the State University of New Jersey and New Jersey is home to many people of Indian, Pakistani, and Bangladeshi descent, in the course of the experiments we collected lots of data about these people's intuitions. Initially we simply set these data aside since we had no theoretical basis for expecting that the epistemic intuitions of people from the Indian subcontinent (hereafter SCs) would be

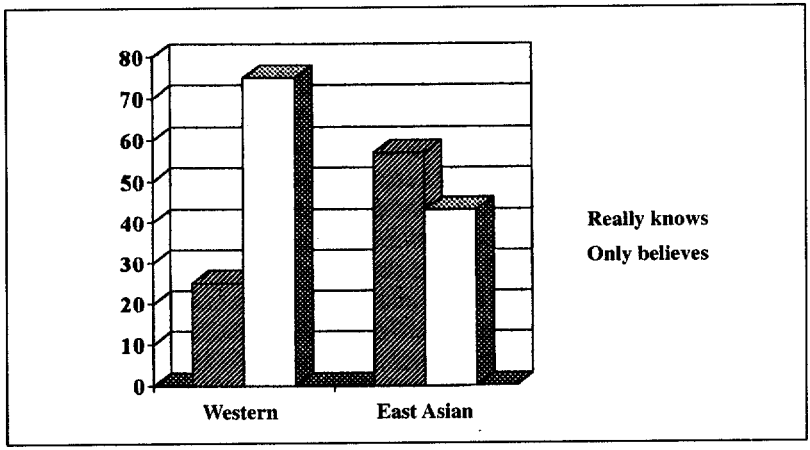

FIGURE 5: Gettier Case, Western and East Asian

systematically different from the epistemic intuitions of Westerners. But, after finding the extraordinary differences between Ws and EAs on the Gettier case, we thought it might be interesting to analyze the SC data as well. We were right. It turns out that the epistemic intuitions of SCs are even more different from the intuitions of Ws than the intuitions of EAs are. The SC results on the Gettier case are shown in figure 6. If these results are robust, then it seems that what counts as knowledge on the banks of the Ganges does not count as knowledge on the banks of the Mississippi!

There were two additional intuition probes that we used in our initial experiments which did not yield statistically significant differences between Ws and EAs. But when we analyzed the SC data, it turned out that there were significant differences between Ws and SCs. The text for one of these probes, the *Cancer Conspiracy* case, was as follows:

> It's clear that smoking cigarettes increases the likelihood of getting cancer. However, there is now a great deal of evidence that just using nicotine by itself without smoking (for instance, by taking a nicotine pill) does not increase the likelihood of getting cancer. Jim knows about this evidence and as a result, he believes that using nicotine does not increase the likelihood of getting cancer. It is possible that the tobacco companies dishonestly made up and publicized this evidence that using nicotine does not increase the likelihood of cancer, and that the evidence is really false and misleading. Now, the tobacco companies did not actually make up this evidence, but Jim is not aware of this fact. Does Jim really know that using nicotine doesn't increase the likelihood of getting cancer, or does he only believe it?
>
> REALLY KNOWS ONLY BELIEVES

The results are shown in figure 7.

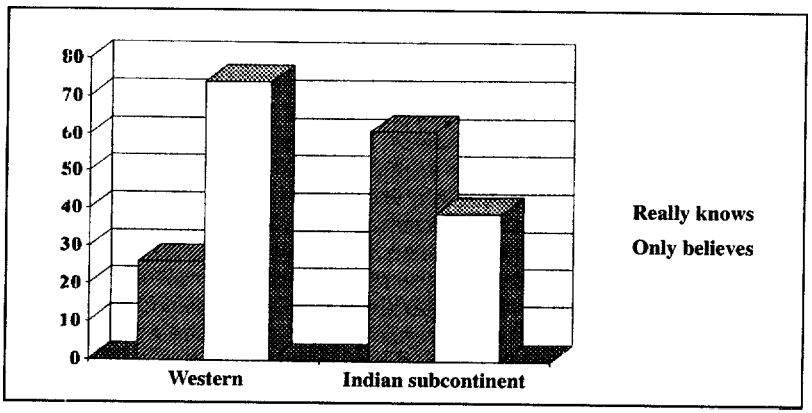

FIGURE 6: Gettier Case, Western and Indian

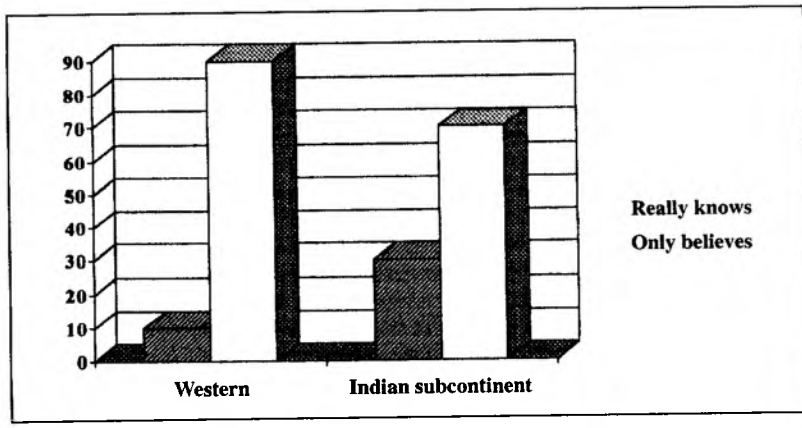

FIGURE 7: Conspiracy Case

The other probe that produced significant differences is a version of Dretske's *Zebra-in-Zoo* case[29]:

> Mike is a young man visiting the zoo with his son, and when they come to the zebra cage, Mike points to the animal and says, "that's a zebra." Mike is right—it is a zebra. However, as the older people in his community know, there are lots of ways that people can be tricked into believing things that aren't true. Indeed, the older people in the community know that it's possible that zoo authorities could cleverly disguise mules to look just like zebras, and people viewing the animals would not be able to tell the difference. If the animal that Mike called a zebra had really been such a cleverly painted mule, Mike still would have thought that it was a zebra. Does Mike really know that the animal is a zebra, or does he only believe that it is?
>
> REALLY KNOWS ONLY BELIEVES

The results are shown in Figure 8.

What's going on in these last two cases? Why do SCs and Ws have different epistemic intuitions about them? The answer, to be quite frank, is that we are not sure how to explain these results. But, of course, for our polemical purposes, an explanatory hypothesis is not really essential. The mere fact that Ws, EAs, and SCs have different epistemic intuitions is enough to make it plausible that IDR strategies which take these intuitions as inputs would yield significantly different normative pronouncements as output. And this, we think, puts the ball squarely in the court of the defenders of IDR strategies. They must either argue that intuitive differences of the sort we've found would not lead to diverging normative claims, or they must argue that the outputs of an IDR strategy are genuinely normative despite

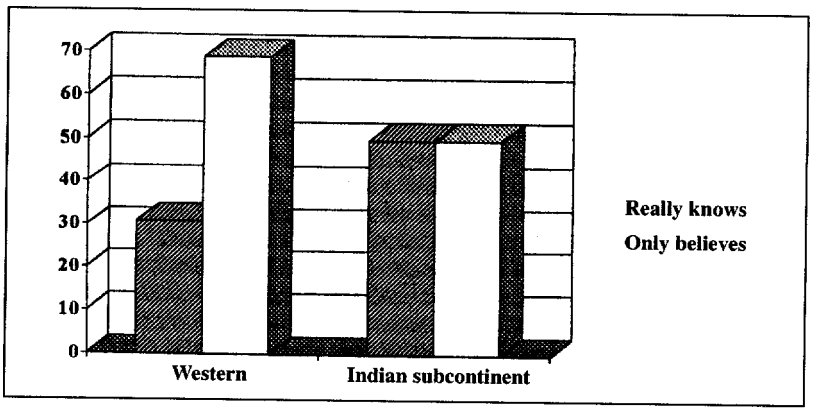

FIGURE 8: Zebra Case

the fact that they are different for different cultures. Nor is this the end of the bad news for those who advocate IDR strategies.

Epistemic Intuitions and Socioeconomic Status

Encouraged by our findings in these cross-cultural studies, we have begun to explore the possibility that epistemic intuitions might also be sensitive to the socioeconomic status of the people offering the intuitions. And while our findings here are also quite preliminary, the apparent answer is that SES does indeed have a major impact on subjects' epistemic intuitions.

Following Haidt (and much other research in social psychology) we used years of education to distinguish low and high SES groups. In the studies we will recount in this section, subjects were classified as low SES if they reported that they had never attended college. Subjects who reported that they had one or more years of college were coded as high SES. All the subjects were adults; they were approached near various commercial venues in downtown New Brunswick, New Jersey, and (since folks approached on the street tend to be rather less compliant than university undergraduates in classrooms) they were offered McDonald's gift certificates worth a few dollars if they agreed to participate in our study.

Interestingly, the two intuition probes for which we found significant SES differences both required the subjects to assess the importance of possible states of affairs that do not actually obtain. Here is the first probe, which is similar to the Dretske-type case discussed above:

> Pat is at the zoo with his son, and when they come to the zebra cage, Pat points to the animal and says, "that's a zebra." Pat is right—it is a zebra. However, given the distance the spectators are from the cage, Pat would not be able to tell the difference

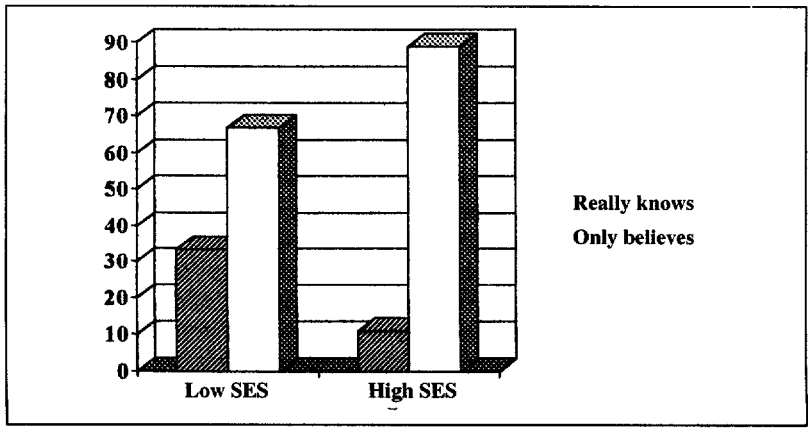

FIGURE 9: Zebra Case

between a real zebra and a mule that is cleverly disguised to look like a zebra. And if the animal had really been a cleverly disguised mule, Pat still would have thought that it was a zebra. Does Pat really know that the animal is a zebra, or does he only believe that it is?

REALLY KNOWS ONLY BELIEVES

The results are shown in figure 9.

The second probe that produced significant (indeed enormous) differences between our two SES groups was the Cancer Conspiracy case that also generated differences between Western subjects and subjects from the Indian subcontinent. The results are shown in figure 10.

Why are the intuitions in these two SES groups so different? Here again we do not have a well-worked-out theoretical framework of the sort that Nisbett and his colleagues have provided for the W vs. EA differences. So any answer we offer is only a speculation. One hypothesis is that one of the many factors that subjects are sensitive to in forming epistemic intuitions of this sort is the extent to which possible but nonactual states of affairs are relevant. Another possibility is that high SES subjects accept much weaker knowledge-defeaters than low SES subjects because low SES subjects have lower minimum standards for knowledge. More research is needed to determine whether either of these conjectures is correct. But whatever the explanation turns out to be, the data we've reported look to be yet another serious embarrassment for the advocates of IDR. As in the case of cultural difference, they must either argue that these intuitive differences, when plugged into an IDR black box, would not lead to different normative conclusions, or they must bite the bullet and argue that diverging normative claims are

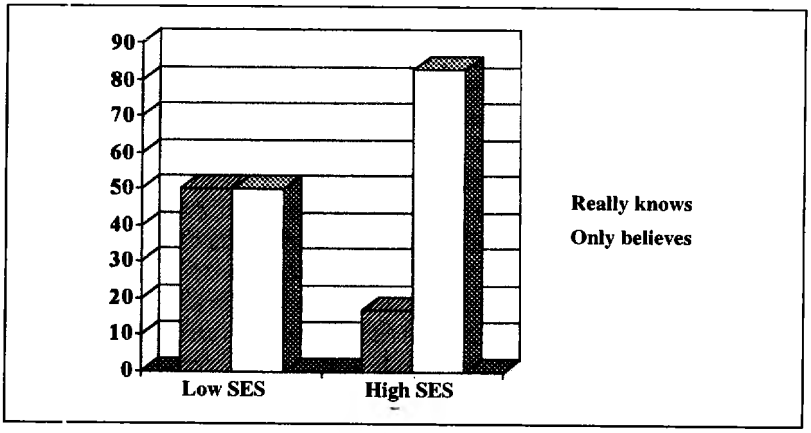

FIGURE 10: Cancer Conspiracy Case

genuinely normative, and thus that the sorts of doxastic states that ought to be pursued by relatively rich and well-educated people are significantly different from the sorts of doxastic states that poor and less well educated folks should seek. We don't pretend to have an argument showing that neither of these options is defensible. But we certainly don't envy the predicament of the IDR advocate who has to opt for one or the other.[30]

IV. OBJECTIONS AND REPLIES

In this section we propose to assemble some objections to the case against IDR that we've set out in the preceding sections along with our replies.

A. WHAT'S SO BAD ABOUT EPISTEMIC RELATIVISM?

Objection:

Suppose we're right. Suppose that epistemic intuitions *do* differ in different ethnic and SES groups, and that because of this IDR strategies will generate different normative conclusions depending on which group uses them. Why, the critic asks, should this be considered a problem for IDR advocates? At most it shows that different epistemic norms apply to different groups, and thus that epistemic relativism is true. But why, exactly, is that a problem? What's so bad about epistemic relativism? "Indeed," we imagine the critic ending with an *ad hominem* flourish, "one of the authors of this paper has published a book that *defends* epistemic relativism."[31]

Reply:

We certainly have no argument that could show that *all* forms of epistemic relativism are unacceptable, and the one avowed relativist among us is still prepared to defend some forms of relativism. But if we are right about epistemic intuitions, then the version of relativism to which IDR strategies lead 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.[32] And that we take to be quite a preposterous result. The fact that IDR strategies lead to this result is, we think, a very strong reason to think that there is something very wrong with those strategies. Of course, a defender of an IDR strategy might simply bite the bullet and insist that the strategy he or she advocates is the right one for uncovering genuine epistemic norms, despite the fact that it leads to a relativistic consequence that many find implausible. But the IDR advocate who responds to our data in this way surely must offer some *argument* for the claim that the preferred IDR strategy produces genuine epistemic norms. And we know of no arguments along these lines that are even remotely plausible.

B. THERE ARE SEVERAL SENSES OF "KNOWLEDGE"

Objection:

The next objection begins with the observation that epistemologists have long been aware that the word "knows" has more than one meaning in ordinary discourse. Sometimes when people say that they "know" that something is the case, what they mean is that they have a strong sense of subjective certainty. So, for example, someone at a horse race might give voice to a strong hunch by saying: "I just know that Ivory Armchair is going to win." And even after Lab Bench comes in first, this colloquial sense of "know" still permits them to say, "Drat! I just knew that Ivory Armchair was going to win." At other times, though, when people use "know" and "knowledge" the sense they have in mind is the one that is of interest to epistemologists. The problem with our results, this objection maintains, is that we did nothing to ensure that when subjects answered "Really Know" rather than "Only Believe" the sense of "know" that they had in mind was the one of philosophical interest rather then the subjective certainty sense. "So," the critic concludes, "for all you know, your subjects might have been offering you philosophically uninteresting judgments about people's sense of subjective certainty."

Reply:

It is certainly possible that some of our subjects were interpreting the "Really Know" option as a question about subjective certainty. But there is reason to think that this did not have a major impact on our findings. For all of our subject groups (W, EA, and SC in the ethnic studies and high and low SES in the SES study) we included a question designed to uncover any systematic differences in our subjects' inclination to treat mere subjective certainty as knowledge. The question we used was the following:

> Dave likes to play a game with flipping a coin. He sometimes gets a "special feeling" that the next flip will come out heads. When he gets this "special feeling," he is right about half the time, and wrong about half the time. Just before the next flip, Dave gets that "special feeling," and the feeling leads him to believe that the coin will land heads. He flips the coin, and it does land heads. Did Dave really know that the coin was going to land heads, or did he only believe it?
>
> REALLY KNOWS ONLY BELIEVES

As shown in figure 11, there was no difference at all between the high and low SES groups on this question; in both groups almost none of our subjects judged that this was a case of knowledge. The results in the ethnic studies were basically the same.[33]

This might be a good place to elaborate a bit on what we are and are not claiming about epistemic intuitions and the psychological mechanisms or "knowledge structures" that may subserve them. For polemical purposes we have been emphasizing the diversity of epistemic intuitions in different ethnic and SES groups, since these quite different intuitions, when plugged into an IDR black box, will generate different normative claims. But we certainly do not mean to suggest that epistemic intuitions are completely malleable or that there are no constraints on the sorts of epistemic intuitions that might be found in different social groups. Indeed, the fact that subjects from all the groups we studied agreed in not classifying beliefs based on "special feelings" as knowledge suggests that there may well be a universal core to "folk epistemology." Whether or not this conjecture is true and, if it is, how this common core is best characterized, are questions that will require a great deal more research. Obviously, these are not issues that can be settled from the philosopher's armchair.

C. THE EFFECT SIZE WE'VE FOUND IS SMALL AND PHILOSOPHICALLY UNINTERESTING

Objection:

If it were the case that virtually all Ws judged various cases in one way and virtually all EAs or SCs judged the same cases in a different way, that might

be genuine cause for concern among epistemologists. But that's not at all what you have found. Rather, what you've shown is merely that in various cases there is a 20 or 30 percent difference in the judgments offered by subjects in various groups. So, for example, a majority in all of your groups withhold knowledge attributions in all the Truetemp cases that were designed to test the degree to which subjects' intuitions reflected epistemic internalism. Since the majority in all groups agree, we can conclude that the correct account of epistemic norms is internalist. So it is far from clear why epistemologists should find the sort of cultural diversity you've found to be at all troubling, or even interesting.

Reply:

Here we have two replies. First, the sizes of the statistically significant group differences that we've reported are quite comparable with the size of the differences that Nisbett, Haidt, and other social psychologists take to show important differences between groups. The second reply is more important. While in some cases what we've been reporting are just the brute facts that intuitions in different groups differ, in other cases what we've found is considerably more interesting. The differences between Ws and EAs 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 will 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. And we have no reason to think that equally important differences could not be found for SCs. Our data also suggests that both high and low SES Westerners stress the individualistic and noncommunitarian vector, since there was no difference between high and low SES groups on questions designed to emphasize this vector. What separates high and low SES subjects is some quite different vector—sensitivity to mere possibilities, perhaps. 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. It is plausible to suppose that these differences would significantly affect the output of just about any IDR process.

D. WE ARE LOOKING AT THE WRONG SORT OF INTUITIONS; THE RIGHT SORT ARE ACCOMPANIED BY A CLEAR SENSE OF NECESSITY

Objection:

The central idea of this objection is that our experiments are simply not designed to evoke the right sort of intuitions—the sort that the IDR process really requires. What we are collecting in our experiments are unfiltered spon-

taneous judgments about a variety of cases. But what is really needed, this objection maintains, are data about quite a different kind of intuitions. The right sort of intuitions are those that have modal import and are accompanied by a clear sense of necessity. They are the kind of intuitions that we have when confronted with principles like: If p, then not-not-p. Unless you show cultural or SES diversity in these sorts of intuitions, this objection continues, you have not shown anything that an IDR advocate needs to be concerned about, since you have not shown that the right sort of intuitions are not universal.[33]

Reply:

It is true that the sorts of intuitions that our experiments collect are not the sorts that some IDR theorists would exploit. However, our findings do raise serious questions about the suggestion that intuitions which come with a clear sense of necessity and modal import—*strong intuitions,* as we propose to call them—are anything close to universal. Many epistemologists would no doubt insist that their own intuitions about many cases are strong intuitions. Simple Gettier case intuitions are a good example. Indeed, if these intuitions, which led a generation of epistemologists to seek something better than the traditional justified true belief analysis of knowledge, are not strong intuitions, then it is hard to believe that there are enough strong intuitions around to generate epistemic norms of any interest. But if philosophers' intuitions on simple Gettier cases *are* strong intuitions, then our data indicate that strong intuitions are far from universal. For, while our experiments cannot distinguish strong from weak intuitions, they do indicate that almost 30 percent of W subjects do not have either strong or weak intuitions that agree with those of most philosophers, since almost 30 percent of these subjects claim that, in our standard Gettier scenario, Bob really knows that Jill drives an American car. Among EA subjects, over 50 percent of subjects have the intuition (weak or strong) that Bob really knows, and among SC subjects the number is over 60! It may well be that upper-middle-class Westerners who have had a few years of graduate training in analytic philosophy do indeed all have strong, modality-linked intuitions about Gettier cases. But since most of the world's population apparently does not share these intuitions, it is hard to see why we should think that these intuitions tell us anything at all about the modal structure of reality, or about epistemic norms or indeed about anything else of philosophical interest.

E. WE ARE LOOKING AT THE WRONG SORT OF INTUITIONS; THE RIGHT SORT REQUIRE AT LEAST A MODICUM OF REFLECTION

Objection:

We have also heard a rather different objection about the type of intuitions examined in our study.[35] The proper input intuitions for the IDR strategy, the

critics maintain, are not "first-off" intuitions—which may be really little better than mere guesses. Rather, IDR requires what might be called *minimally reflective intuitions* —intuitions resulting from some modicum of attention, consideration, and above all reflection on the particulars of the case at hand as well as one's other theoretical commitments. We have, this objection continues, done nothing to show that such minimally reflective intuitions would exhibit the sort of diversity we have been reporting, and until we show something along those lines, the IDR theorist need not worry.

Reply:

This objection is right as far as it goes, since we have not (yet) examined intuitions produced under conditions of explicit reflection. But the objection really does not go very far, and certainly not far enough to allow IDR theorists to rest easy. First of all, many of our subjects clearly did reflect at least minimally before answering, as evidenced in the many survey forms on which the subjects wrote brief explanatory comments after their answers. Moreover, as we stressed in Reply 4.C, it is not just that we found group differences in epistemic intuition; much more interestingly, Western and East Asian subjects' intuitions seem to respond to quite different epistemic vectors. It is extremely likely that such differences in sensitivities would be recapitulated—or even strengthened—in any reflective process. If EA subjects have an inclination to take into account factors involving community beliefs, practices, and traditions, and W subjects do not have such an inclination, then we see no reason to expect that such vectors will not be differentially present under conditions of explicit reflection. IDR theorists who want to make use of any purported difference between first-off and minimally reflective intuitions had better go get some *data* showing that such differences would point in the direction they would want.

F. WE ARE LOOKING AT THE WRONG SORT OF INTUITIONS; THE RIGHT SORT ARE THOSE THAT EMERGE AFTER AN EXTENDED PERIOD OF DISCUSSION AND REFLECTION

Objection:

The last objection we'll consider was proposed (though not, we suspect, endorsed) by Philip Kitcher. What IDR strategies need, this objection maintains, is neither first-off intuitions nor even minimally reflective intuitions, but rather the sorts of intuitions that people develop after a lengthy period of reflection and discussion—the sort of reflection and discussion that philosophy traditionally encourages. Kitcher suggested that they be called *Austinian intuitions*.

Your experiments, the objection insists, do nothing to show that Austinian intuitions would exhibit the sort of cultural diversity you've found

in first-off intuitions, or, indeed, that they would show any significant diversity at all. When sensible people reflect and reason together, there is every reason to suppose that they will ultimately reach a meeting of the minds.

Reply:

We certainly concede that we have not shown that Austinian intuitions would not ultimately converge. However, to echo the theme of our previous reply, in the absence of any evidence we don't think there is any reason to suppose that the sorts of marked cultural differences in sensitivity to epistemic vectors that our experiments have demonstrated would simply disappear after reflection and discussion. Moreover, even if these cultural differences do dissipate after extended reflection, it might well be the case that they would be replaced by the sorts of order effects suggested in Section 3.B by our Hypothesis 4. If that hypothesis is correct, then the Austinian intuitions on which a group of reflective people would converge would depend, in part, on the order in which examples and arguments happened to be introduced. And different groups might well converge on quite different sets of Austinian intuitions which then proved quite impervious to change. Experiments demonstrating the sort of path dependence that we suggest in Hypothesis 4 are much harder to design than experiments demonstrating cultural differences in initial intuitions. In the next stage of our ongoing empirical research on intuitions, we hope to run a series of experiments that will indicate the extent to which the evolution of people's intuitions is indeed a function of the order in which examples and counterexamples are encountered. Neither those experiments nor any of the evidence we've cited in this paper will suffice to demonstrate that Austinian intuitions or IDR processes that propose to use them will fail to converge. But, to end with the theme with which we began, our goal has not been to establish that IDR strategies *will* lead to very different (putatively) normative conclusions, but simply to make it plausible that they *might*. The assumption that they won't is an empirical assumption; it is not an assumption that can made without argument.

Our data indicate that when epistemologists advert to "our" intuitions when attempting to characterize epistemic concepts or draw normative conclusions, they are engaged in a culturally local endeavor—what we might think of as *ethno-epistemology*. Indeed, in our studies, some of the most influential thought experiments of twentieth-century epistemology elicited different intuitions in different cultures. In light of this, Intuition-Driven Romanticism seems a rather bizarre way to determine the correct epistemic norms. For it is difficult to see why a process that relies heavily on epistemic intuitions that are local to one's own cultural and socioeconomic group would lead to genuinely normative conclusions. Pending a detailed response

to this problem, we think that the best reaction to the high-SES Western philosophy professor who tries to draw normative conclusions from the facts about "our" intuitions is to ask: What do you mean "we"?

NOTES

We are grateful to Joe Cruz, Gilbert Harman, Philip Kitcher, and Joel Pust for helpful feedback on earlier versions of this paper. Our deepest debt is to Richard Nisbett, who provided us with invaluable advice and assistance in designing and interpreting the studies reported in section 3.

1. R. Samuels, "Naturalism and Normativity" (in preparation).
2. Alvin I. Goldman, "The Internalist Conception of Justification," in *Midwest Studies in Philosophy V: Epistemology,* ed. French, Uehling, and Wettstein (Minneapolis: University of Minnesota Press, 1980).
3. The literature on conceptual analysis in epistemology is vast. For an elite selection, see the essays assembled in E. Sosa, ed., *Knowledge and Justification* (Brookfield, Vt.: International Research Library of Philosophy, Dartmouth Publishing Company, 1994).
4. This is a view with a venerable history. In Plato's *Protagoras,* Socrates says that "knowledge is a noble and commanding thing," and Protagoras, not to be outdone, replies that "wisdom and knowledge are the highest of human things." Plato, *The Dialogues of Plato,* trans. B. Jowett (New York: Random House, 1892/1937), 352.
5. Perhaps the most important advocate of extracting normative principles from analyses of our epistemic terms is Roderick Chisolm (*Theory of Knowledge* [Englewood Cliffs, N.J.: Prentice-Hall, 1977]). This approach is shared in projects as otherwise dissimilar as Bonjour and Pollock and Cruz. See, e.g., L. Bonjour, *The Structure of Empirical Knowledge* (Cambridge, Mass.: Harvard University Press, 1985); and J. Pollock and J. Cruz, *Contemporary Theories of Knowledge* (Lanham, Mass.: Rowman and Littlefield, 1999).
6. For further discussion of the Evaluative Project, see R. Samuels, S. Stich, and P. Tremoulet, "Rethinking Rationality: From Bleak Implications to Darwinian Modules," in *What Is Cognitive Science?* ed. E. LePore and Z. Pylyshyn (Oxford: Blackwell, 1999), 74–120; R. Samuels, S. Stich, and M. Bishop, "Ending the Rationality Wars: How to Make Disputes about Human Rationality Disappear," in Renee Elio, ed., *Common Sense, Reasoning and Rationality,* Vancouver Studies in Cognitive Science, vol. 11 (Oxford: Oxford University Press, in press); and R. Samuels, S. Stich, and L. Faucher, "Reasoning and Rationality," in *Handbook of Epistemology,* ed. I. Niiniluoto, M. Sintonen, and J. Wolenski (Dordrecht: Kluwer, in press). These papers are available on the web site of the Rutgers University Research Group on Evolution and Higher Cognition: http://ruccs.rutgers.edu/ArchiveFolder/Research%20Group/research.html
7. Note that as we've characterized them, epistemic intuitions are spontaneous judgments about *specific cases.* Some strategies for discovering or testing epistemic norms also take intuitions about general epistemic or inferential principles as input. These will count as Intuition-Driven Romantic strategies provided that the output is suitably sensitive to the intuitions about specific cases that are included in the input.
8. N. Goodman, *Fact, Fiction and Forecast* (Indianapolis, Ind.: Bobbs-Merrill, 1965), 66.
9. L. Cohen, "Can Human Irrationality Be Experimentally Demonstrated?" *Behavioral and Brain Sciences* 4 (1981): 317–70. For a useful discussion of the debate that Cohen's paper provoked, see E. Stein, *Without Good Reason: The Rationality Debate in Philosophy and Cognitive Science* (Oxford: Clarendon Press, 1996), ch. 5.

10. See, for example, C. Elgin, *Considered Judgment* (Princeton, N.J.: Princeton University Press, 1996), ch. 4; and Stein, *Without Good Reason,* chs. 5 and 7.
11. Alvin I. Goldman, *Epistemology and Cognition* (Cambridge, Mass.: Harvard University Press, 1986), 60.
12. Ibid., 64.
13. Ibid., 58.
14. Ibid., 66. In an insightful commentary on this paper, presented at the Conference in Honor of Alvin Goldman, Joel Pust notes that in his recent work Goldman (Alvin I. Goldman, "Epistemic Folkways and Scientific Epistemology," in *Liasons* [Cambridge, Mass.: MIT Press, 1992]; Alvin I. Goldman, "A Priori Warrant and Naturalistic Epistemology," in James Tomberlin (ed.), *Philosophical Perspectives* (a supplement to *Noûs*) 13 [1999]; and Alvin Goldman and J. Pust, "Philosophical Theory and Intuitional Evidence," in M. DePaul and W. Ramsey (eds.), *Rethinking Intuition* (Lanham, Md.: Rowman and Littlefield, 1998]) has offered a rather different account of how epistemic intuitions are to be used:

> Very roughly, Goldman's more recent view treats the targets of philosophical analysis as concepts in the psychological sense of "concept," concrete mental representations causally implicated in the production of philosophical intuitions. On this new view, intuitions serve primarily as reliable evidence concerning the intuitors internal psychological mechanisms. . . . Especially interesting in the context of [the Weinberg, Nichols and Stich paper] is the fact that Goldman *explicitly disavows* the common assumption of "great uniformity in epistemic subjects" judgments about cases, noting that this assumption may result from the fact that philosophers come from a "fairly homogeneous subculture" (Goldman, "Epistemic Folkways and Scientific Epistemology," 160).
>
> This new psychologistic account makes it easier to explain why intuitions are reliable evidence of some sort. However, this reliability is gained by deflating the evidential pretensions of intuitions so that they are no longer treated as relevant to the *non-linguistic* or *non-psychological* question which is the central concern of the Normative Project: "What makes a belief epistemically justified?" While Goldman's approach solves *a* problem about the reliability of intuitions by telling us that *the fact that people have* certain intuitions is a reliable indicator of their psychological constitution, it does not resolve the problem which motivated Stich's argument since *that* problem was whether we are justified in treating *the content of* our epistemic intuitions as a reliable guide to the nature of justified belief. So, while Goldman's use of intuitions in his new project seems to me largely immune to [the criticisms in the paper by Weinberg, Nichols and Stich], this is because that project has aspirations quite different from those of traditional analytic epistemology.

15. E. Gettier, "Is Justified True Belief Knowledge?" *Analysis* 23 (1963): 121–23. For a review of literature during the first two decades after Gettier's paper appeared, see R. Shope, *The Analysis of Knowing* (Princeton, N.J.: Princeton University Press, 1983). For more recent work in this tradition, see Plantinga, as well as the follow-up collection of papers in Kvanvig. A. Plantinga, *Warrant and Proper Function* (Oxford: Oxford University Press, 1993); A. Plantinga, *Warrant: The Current Debate* (Oxford: Oxford University Press, 1993); and J. Kvanvig, ed., *Warrant in Contemporary Epistemology: Essays in Honor of Plantinga's Theory of Knowledge* (Lanham, Md.: Rowman and Littlefield, 1996).
16. Stephen Stich, *The Fragmentation of Reason* (Cambridge, Mass.: MIT Press, 1990), sec. 4.6.
17. Cf. Pollock and Cruz, *Contemporary Theories of Knowledge,* 150.
18. The East Asian subjects were Chinese, Japanese, and Korean. Some of the experiments

were conducted in Asia, others used East Asian students studying in the United States or first- and second-generation East Asian immigrants to the United States. The Western subjects were Americans of European ancestry.

19. R. Nisbett, K. Peng, I. Choi, and A. Norenzayan, "Culture and Systems of Thought: Holistic vs. Analytic Cognition," *Psychological Review* (2001): 293.
20. Nisbett (personal communication). M. Watanabe, *Styles of reasoning in Japan and the United States: Logic of education in two cultures.* Unpublished Ph.D. thesis, Columbia University, 1999, Abstract. See also M. Watanabe, "Styles of reasoning in Japan and the United States: Logic of Education in Two Cultures." Paper presented at the American Sociological Association Annual Meeting, San Francisco, August 1998.
21. Nisbett et al. (2001), 292–93.
22. J. Haidt, S. Koller, and M. Dias, "Affect, Culture and Morality," *Journal of Personality and Social Psychology* 65, 4 (1993): 613–28. We are grateful to Christopher Knapp for bringing Haidt's work to our attention.
23. See A. Clark, *Being There: Putting Brain, Body and World Together Again* (Cambridge, Mass.: MIT Press, 1997), 204–7.
24. Nisbett and Ross's work on "belief perseverance" shows that, sometimes at least, once a belief is formed, it can be surprisingly impervious to change. See, for example, R. Nisbett and L. Ross, *Human Inference: Strategies and Shortcomings of Social Judgment* (Englewood Cliffs, N.J.: Prentice-Hall, 1980), ch. 8.
25. K. Lehrer, *Theory of Knowledge* (Boulder, Colo.: Westview Press and Routledge, 1990).
26. In classifying subjects as East Asian or Western, we relied on the same ethnic identification questionnaire that Nisbett and his colleagues had used. We are grateful to Professor Nisbett for providing us with a copy of the questionnaire and for much helpful advice on its use.
27. The numerical data for all the experiments reported in this paper are assembled in the Appendix.
28. A. Norenzayan, R. E. Nisbett, E. E. Smith, and B. J. Kim, *Rules vs. Similarity as a Basis for Reasoning and Judgment in East and West* (Ann Arbor: University of Michigan, 1999).
29. F. Dretske, "Epistemic Operators," *Journal of Philosophy* 67, 24 (1970): 1007–23. Reprinted in F. Dretske, *Perception, Knowledge, and Belief* (Cambridge: Cambridge University Press, 2000).
30. We also checked for gender effects, and, while the data suggested some trends, we found significant differences on only one probe, the zebra case. On that probe, women were more likely to attribute knowledge than men ($p = .0487$). Without a larger set of data, we are not sure how to interpret this result, but we are confident that gender differences in philosophical intuitions will be an important area for further exploration.
31. Stich, *The Fragmentation of Reason,* esp. ch. 6.
32. Though there is very little evidence on the point, we don't think the differences we've found are innate. Rather, we suspect, they are the product of deep differences in culture.
33. Another possible interpretation of "Really Know" in our intuition probes would invoke what Ernest Sosa has termed merely "animal" or "servo-mechanical" knowledge. (E. Sosa, *Knowledge in Perspective* [Cambridge: Cambridge University Press, 1991], 953) We sometimes say that a dog knows that it's about to be fed, or that the thermostat knows the temperature in the room. But we philosophers are hunting different game—fully normative game which, the critic maintains, these surveys might not capture. However, if our subjects had this notion in mind, one would predict that they would overwhelmingly attribute such knowledge in the Truetemp cases, since the protagonists in each of the stories clearly has a reliable, thermostat-like information-registering capacity. Yet they did not do so—in none of the Truetemp cases did a majority of subjects opt for "Really Knows." So this rival gloss on "knows" will not help the IDR theorist to explain our data away.

34. See, for example, Bealer (G. Bealer, "A Theory of the *A Priori*," *Philosophical Perspectives, 13, Epistemology* [1999] 29–55) who insists that "the work of cognitive psychologists such as Wason, Johnson-Laird, Nisbett, Kahneman and Tversky tells us little about intuitions in our [philosophical] sense" (31).
35. This objection was offered by Henry Jackman, Ram Neta, and Jonathan Schaffer.

APPENDIX

The Fisher Exact test was used to calculate statistical significance between groups.

Individualistic Truetemp Case (Figure 1)

	Really knows	Only believes
Western	61	128
East Asian	3	22

The p-exact = 0.020114

Elders Truetemp Case (Figure 2)

	Really knows	Only believes
Western	77	140
East Asian	5	15

The p-exact = 0.131784

Community Wide Truetemp Case (Figure 3)

	Really knows	Only believes
Western	2	8
East Asian	10	21

The p-exact = 0.252681

Gettier Case: Western and East Asian (Figure 5)

	Really knows	Only believes
Western	17	49
East Asian	13	10

The p-exact = 0.006414

Gettier Case: Western and Indian (Figure 6)

	Really knows	Only believes
Western	17	49
Indian subcontinental	14	9

The p-exact = 0.002407

Cancer Conspiracy Case: Western and Indian (Figure 7)

	Really knows	Only believes
Western	7	59
Indian subcontinental	7	16

The p-exact = 0.025014

Zebra-in-Zoo Case: Western and Indian (Figure 8)

	Really knows	Only believes
Western	19	43
Indian subcontinental	12	12

The p-exact = 0.049898

Zebra-in-Zoo Case: Low and High SES (Figure 9)

	Really knows	Only believes
Low SES	8	16
High SES	4	30

The p-exact = 0.038246

Cancer Conspiracy Case: Low and High SES (Figure 10)

	Really knows	Only believes
Low SES	12	2
High SES	6	29

The p-exact = 0.006778

Special Feeling Case: Low and High SES (Figure 11)

	Really knows	Only believes
Low SES	3	32
High SES	3	21

The p-exact = 0.294004

Special Feeling Case: Western and East Asian (no figure)

	Really knows	Only believes
Western	2	59
East Asian	0	8

The p-exact = 0.780051