

**“HOW RATIONALISM FAILS TO EXPLAIN CONFLICTING
INTUITIONS”**

For The International Symposium on A Priori Knowledge in Contemporary

Epistemology 2004. Sherbrooke University, Quebec

SUSANNAH KATE DEVITT

RUTGERS UNIVERSITY

SKDEVITT@GMAIL.COM

ABSTRACT:

All philosophers use intuitions as evidence for their theories, especially in thought experiments. However, because intuitions are fallible, philosophers must explain how the evidential use of intuitions is justified. This justification will depend on the meta-philosophical position a philosopher adopts. On the one hand, rationalists like George Bealer and Ernie Sosa argue that a priori intuitions are a basic evidential source because that have the correct modal tie to the truth. On the other hand, naturalists like Kornblith argue that intuitions are evidence because they are the product of experiences in our environment. Both approaches can equally explain cognitively impenetrable intuitions, like the passage of time or $2+2=4$. However, the rationalist approach has difficulty explaining how to evaluate conflicting intuitions. E.g., those evoked in moral dilemmas or counterfactual analysis. The naturalist view is attractive because differences in intuitions are a product of different empirical experiences. These differences can be scientifically investigated based on expertise and reliability, rather than standing as merely opinion. In this paper I argue that the rationalist has no systematic method for deliberation between conflicting intuitions. I argue that a naturalistic approach is a more justified, structured framework for the use of intuitions in philosophy.

HOW PHILOSOPHY SHOULD USE INTUITIONS AS EVIDENCE

1. Introduction

One of the favored research methods in philosophy is the interpretation of intuitions. Yet, there is a limited explanation of why this is justified. Because research in psychology has found that some of our intuitions are fallible, the use of intuitions in philosophy ought to be scrutinized. For example, there is considerable recognition in psychology that human intuitions about probability are very poor. For example, most people naively believe that they know randomness when they see it, i.e., they believe they can accurately detect patterns from noise (Plous, Ch.14). Gilovich, Vallone and Tversky (1985) have shown that in fact people are terrible at this. Their research suggests that when people are presented with two series of Xs and Os, for example:

1) XOXXXOOOOXOXXOOOXXXOX

2) XOXOXOOOXXOXOXOOXXXOX

Subjects will choose 2) as the most random sequence because the Xs and Os alternate more regularly. However, for series 1) $\Pr(X) = 0.5$ and for series 2) $\Pr(X) = 0.7$. Subjects are poor at discerning the more random series. Unfortunately, randomness just does not look random enough! Results like these are taught to graduate psychologists so that they are aware of their own abilities (or lack there of) and then students are trained in rigorous statistical analysis to counteract our natural tendencies. Correcting reasoning is an ongoing project in psychology. For example, a recent article by Gale, Hawley and Sivakumaran (2003) found that mental health professionals have systematic errors in all

areas of probabilistic reasoning and risk assessment, including trouble doing simple arithmetic and the evaluating relevant information. This experimental result will be used to evaluate current methods in mental health research. In this paper, I argue that knowledge that intuitions are fallible provide reasons for a critical stance towards intuitions in any science, including philosophy. Philosophers must justify their use of intuitions as evidence. If philosophical intuitions are without fault, no harm is done, but if philosophical intuitions are found lacking, we are empowered to seek improvement and philosophy should be interested in methodological improvement.

From counterfactuals to trolley problems, philosophical intuitions provide reasons for our beliefs and evidence for our theories.¹ They are deliberately invoked in thought experiments about Zombies, Twin Earth, Inverted qualia, Color-blind Mary, Gettier cases, Barn Facades, Gricean claims and the like. Daniel Dennett specifically designed his qualia thought experiments as ‘intuition pumps’ (p.227). The rise of the thought experiment as a methodological technique is one of the key reasons for a careful analysis of our use of intuitions. In fact, all philosophers appeal to intuitions: from the hard-nosed naturalists like Hilary Kornblith (p.129), to the unapologetic rationalists like George Bealer (p.205).² So, what do we mean by ‘intuitions’? Exactly what is their evidential

¹ Tamar Szabo Gendler argues that to perform a thought experiment is to evoke intuitions about an imaginary scenario with the aim of evaluating some hypothesis or theory p.388

² Although both rationalists and naturalists use intuitions, they constantly try to demonstrate that the opposition’s use of them is unjustified. Robert Cummins makes a nice point about this. When arguing that philosophical theory *cannot* be grounded in intuition, he says, “I have heard the following *tu quoque*: ‘Your arguments against appeal to intuition in philosophy are themselves grounded in intuition.’ I do not think so; I think they are grounded in psychology and successful scientific practice. But here is a *tu quoque* back: If you believe in intuition, and think my premises and logic are intuitive, you should accept my conclusion. If you do that, you have a *reductio* against intuition on your hands.” (Endnote 8, p.127] In this paper I accept the use of intuitions in philosophy and set aside the ‘*tu quoque*’ debate. .

role in philosophy? When are intuitions reliable and how do we evaluate such reliability? Indeed, why are they justified?

In this paper I argue that the rationalist justification of intuitions does not adequately explain why the intuitions of the ‘folk’ are evidence in some areas of philosophy whilst in other domains; the intuitions of ‘expert’ philosophers are judged more reliable. The rationalists provide no method to choose between two incompatible intuitions. On the other hand, a naturalistic framework offers a plausible reason for differences between folk and expert intuition as well as providing a normative account for choosing between incompatible intuitions.

Because the word ‘intuition’ can be used in so many ways, some definitional work will help clear the fog of interpretation. Thus, Section 2 clarifies what we mean by ‘intuition’ and ‘evidence’. I argue that intuitions are cognitive ‘seemings’ and can be both basic, minimal propositional attitudes (analogous to perception or reflexes), or complicated, heavily theory-laden responses to philosophical thought experiments. Because intuitions provide much evidence for philosophical theories, this section will also define what we mean by ‘evidence’. Section 3 evaluates the justification of intuitions as evidence in philosophy, from rationalists to the naturalists. Section 4 concludes the paper by arguing that an empirically based, naturalistic framework provides the best justification of the current use of intuitions as evidence throughout philosophy. I limit the scope of my investigation to philosophers who seek the truth about the external world, rather than the truth about our *conceptualization* of the external world. I believe that philosophy should

seek the meaning of CAT in reference to real cats in the actual world, not merely to seek the meaning of representations of cat in a particular tokening.³ That is where the interesting work gets done. It is also where the difficult work gets done and where I believe the epistemological problems most in need of investigating.

2. Intuitions and Evidence

2.1 *What is intuition?*

Locke said that, intuition is the *perception* of ideas by the mind.⁴ He thought that truths such as, ‘black is not white’, ‘a circle is not a triangle’, or ‘three is more than two’ are perceived at the first ‘sight’ of the ideas together, by bare *intuition*, without the intervention of any other idea. Prima facie, an intuition feels like a reflexive, knee-jerk reaction, before reasoning, or reflection. Intuitions can be taxonomised into the following non-exhaustive list: *Simple and familiar*, e.g., intuiting $2+2=4$. *Complex and abstract*, e.g. intuiting whether time would cease to exist if there was no change. *Lacking theory or basis in reality*, e.g., intuiting the height of a Jabberwocky, or *highly theory dependent*, e.g. intuiting the diagnosis of a disease, or intuiting the truth of a complex counterfactual conditional.

Regardless of which category an intuition arises, intuitions share certain properties.

1. Intuitions are spontaneous and different from the result of reasoning and inference. For example, I can have an intuition that torture is wrong, before any

³ Here I am being sympathetic to Fodor’s view as expressed in *Concepts* (1998)

⁴ Locke, J (1998) *An Essay Concerning Human Understanding*. Penguin Classics. i.v. II Section 1

- contemplation or argument. In this sense intuitions are distinguished from the conclusions of inferences.
2. I can reflect on an intuition and examine reasons for it. However, it is important to realize that the intuition itself is distinct from result of the reflection.
 3. Intuitions can be built up over time. For example, the intuitions of an apprentice mechanic may be more accurate with each car repaired.
 4. Intuitions can be either cognitively impenetrable, like the Muller-Lyer illusion, or susceptible to learning (e.g. the mechanic case in 3.)

There is debate about the status of intuitions as a mental entity. On the one hand, Bealer and Kornblith both describe an intuition as a cognitive episode, or ‘seeming’ (Bealer, p.210 and Kornblith p.134).⁵ On the other hand, Alvin Goldman and Joel Pust define intuitions as “spontaneous mental *judgments* ‘that p’” (p.73).⁶ I believe that ‘judgment’ is the wrong label for an intuition, because one can have an intuition that P and yet judge that \sim P, for example, the Muller-lyer illusion. This difference occurs because the phenomenology of an intuition and a judgment are different. This difference is particularly relevant when the issue of evidence is considered. When I have an intuition, it must *seem* to me that such-and-such. A seeming *can* lead to a belief that P, but it is not necessarily a belief that P. Ernie Sosa compares intuition with ostensible perception,

⁵ The same contrast between intuition and judgment also occurs with purely mental events. Bealer distinguishes between intuitions and other mental states, like hunches, guesses and judgments (p.21]. He does not consider judgments etc... to be ‘seemings’, though they may share some essential properties (e.g., ‘being a basic evidential source’) or simultaneously apply to a proposition (e.g., x may both intuit and judge ‘that p’).

⁶ Shaun Nichols, Steven Stich and Jonathan Weinburg also use this definition in their paper challenging the universality of intuitions In an endnote they state, “An intuition is simply a spontaneous judgment about the truth or falsity of a proposition—a judgment for which the person making the judgment may be able to offer little or no further justification.” (p.21]

rather than perceptual belief (p.258). For example, one can have *intuitions* of a bent stick in water, whilst *believing* that the stick is straight.⁷

In this paper I argue that an ‘intuition’ is a spontaneous, non-inferential *seeming* that may or may not be cognitively penetrable. In the next section, I provide a rundown on evidence. It is crucial to understand the nature of evidence, in order to provide a context of evaluation for how intuitions might be evidence for philosophical theories.

2.2 What is evidence?

Whenever people seek out to find the truth of a hypothesis, they use evidence to determine the facts. Evidence might be folk intuitions, scientific theory, a priori rational insight etc... In science, theories are suggested and then subjected to rigorous scrutiny, dependent on the evidence found for and against. The important functional role of evidence is its power to differentiate true from false theories. Evidence is a statement or fact that provides epistemic support for or against another statement or fact⁸. That is, when evaluating a proposition P, having *evidence* of P makes it rational to increase our *belief* in P.⁹

How do we know what kind of evidence philosophy needs?—It depends on what kind of philosophy we’re engaging in. There are mentalist philosophers—who seek to understand

⁷ Bealer has an example from logic. On the one hand, it seems that the naïve comprehension axiom of set theory is intuitively true. However, Bealer does not *believe* that it is true because he knows of the set-theoretic paradoxes (p.208).

⁸ Graham, p.227

our mental concepts, like ‘goodness’, ‘beauty’ or ‘justice’—and there are extra-mentalists philosophers—who seek to understand phenomena of the external world. I argue that the goal of philosophy is to determine the truth about the world, not merely our concepts of the world. We seek to understand concrete objects like rocks and animals and their properties, but we more importantly seek the truth about the fundamental nature of time, causality etc...¹⁰

Extra-mentalists philosophers need intuitions to connect in some real way to the external world for them to count as evidence. For example, intuitions about counterfactuals are only valid if they work in the mechanics of actual world. There are two opposing theories for why intuitions are justified. On one side, the rationalists argue that a priori intuition can access the true nature of reality. For example, Descartes in his third meditation gives a good example of a priori reasoning, “I now seem to be able to lay it down as a general rule that whatever I perceive very clearly and distinctly is true” (p.24 Section 35). On the other side, naturalists argue that intuition can access the true nature of reality because we are born in our environment and gain truthful information about it through experience.

To review, so far I have argued that an intuition is a spontaneous, non-inferential, seeming that can be either cognitively impenetrable or educatable and that evidence is used as a way of rationally revising beliefs in propositions. The question of why intuitions are relied upon in philosophy depends on what meta-philosophical position one takes. In the next section, I present the justifications for using intuitions as evidence

⁹ I assume a Bayesian approach to rational theory revision.

offered by the rationalists and the naturalists. I evaluate their claims and argue that only naturalism can successfully explain and justify the use of intuitions in philosophy.

3. Justification of Intuitions in Philosophy

In this section, I investigate how rationalism and naturalism in philosophy justify using intuitions. Both positions argue that for intuitions to be evidence, they must arise from a *reliable* mechanism.¹¹ Unreliable sources have a low probability of dovetailing with reality. If intuitions are to count as good evidence, they must adequately distinguish truths about the objective world.

All philosophers conduct armchair reasoning to various degrees. However, the epistemic function of this practice depends on one's meta-philosophical position. We must keep in mind the distinction between the *practice* of philosophers and the *justifications* they offer for said practices. The justification of armchair reasoning is vital to understanding the validity of using intuitions as evidence in philosophy. I contrast the naturalist and the rationalist dogma because most philosophers will align themselves somewhere in the logical space between the rationalist and the naturalist line. In the same way analyzing the contents of hot and cold water faucets will explain whatever concoction is in the bathtub.

¹⁰ Goldman and Pust define my approach to be that of the 'extra-mentalist' because I consider the target of philosophical analysis as, 'outside-the-head nonpsychological entities' (p.78).

¹¹ If a fuel gauge always blinks when my gas tank is empty, then the blinking light is good evidence that I need to go to a gas station. The fuel gauge is a reliable indicator that I have an empty gas tank. If the fuel gauge only told me intermittently when I needed gas, then its value as an evidential source would be limited.

3.1 Hot water - Rational Justification

Pure mathematical inquiry depends on intuition and reason to establish the truth of a proposition. For example, take Euclid's first axiom, 'a point is that which has no part'. There are no physical 'points' in the world to evaluate such a claim. When rationalists conduct philosophical enquiry, they justify it by a similar appeal. They argue that philosophical truths are unraveled through a priori insight. A priori insight is justified by the appeal to the reflective methodologies found in math and logic. Intuitions about propositions access the platonic forms or universals, by somehow 'grasping' these entities.

Bealer argues that the more elementary the intuition, the more reliable it is as an evidential source (p.220). For example, intuitions about whether $2+2=4$, are supposed to be more reliable than intuitions about set theory. The rationalists wish to establish the value of intuitions as a *basic* evidential source, thus the reliability of elementary intuitions would only be challenged by extreme skepticism, of the sort prompted by concerns about evil demons, brains in vats etc... Bealer suggests that intuitions have their authority intrinsically and it is an authority exceeded by no other (p.220).

Intuitions qualify as a basic evidential source for the rationalists because they have an appropriate modal tie to the truth (Bealer p.203). Thus, if intuitions are likely to be possibly or necessarily true, then they qualify as basic evidence for a theory. Intuitions

are a basic evidential source in the same way as perceptual information is basic evidence. They both require no further justification. Intuition and perception are the end of the explanatory path; they stop the infinite regress of explanation.¹²

This is not to say that intuitions are infallible: Sosa and Bealer both acknowledge fallibility, but they are not concerned by it¹³. Sosa makes the comparison between the visual illusions and intuitive errors. Humans would be foolish to give up on perception due to a few systematic mistakes. He asks, “would it not be... precipitous and imperceptive to condemn intuition wholesale?” (p.261) Bealer argues that local fallibility (i.e. an individual’s intuition) is not an issue. He states:

...Collectively, over historical time, undertaking philosophy as a civilization-wide project, we can obtain authoritative answers to a wide variety of central philosophical questions. (p.203)

The idea is to concentrate on progress over a long period of time and collective effort. Sosa argues that most of the time we can tell when to use intuitions and when other evidence should inform them. Sosa states, “We monitor our belief formation, at least implicitly, and make adjustments that improve its systematic reliability” (p.265).

I argue that the rationalist explanation is unproblematic when intuitions are cognitively impenetrable (i.e. basic) and generally agreed to. However, once disagreement exists

¹² There is good experimental evidence of an intuitional starting line in Haidt’s work on intuitions about sibling incest. He asks subjects whether consensual adult sibling incest with contraception is morally wrong. Most subjects rationalize an affirmative answer before admitting that it’s ‘just wrong’. In this case there appears to be a brick wall of impenetrable moral intuition.

between intuitions, they offer no satisfying explanation of how this can occur and neither do they offer a method to evaluate such disagreements. When two people have opposing intuitions on the right solution to an ethical trolley problem, why do they differ and whose intuitions “win”? The challenge for the rationalist is to explain how to evaluate intuitions when the results are not universally agreed and errors not systematic.

3.2 *Cold Water - Empirical Justification*

Naturalism is a philosophical project based on the methodology of the experimental sciences. In this methodology, intuitions are minimally evidence and subject to testing with externally verifiable data. Philosophers who consider themselves naturalists adopt the empirical approach. Naturalists place very little evidential weight on a priori insights. Some naturalists place little evidential weight on the use of *any intuitions at all*. I think that this approach fails to recognize just how pervasive the use of intuitions is in philosophical work. Indeed, these skeptical naturalists justify their claim via an intuition that intuitions are never justified. Well, clearly they need more than that! I believe that if a skeptical naturalist realized that they do not need to accept the use of *all* intuitions wholesale, then they will realize that there is a place for the limited use of intuitions. E.g. take a simple intuition that a table is red. Most naturalists (who are not radical skeptics) will accept this use of perceptual intuitions. I believe that there are circumstances where the more complicated use of intuitions is also justified. Indeed, my project is to furnish the naturalist with reasons when and why intuitions are justified as an evidential source.

¹³ I refer to Sosa’s views as arguments for the rationalist tradition, even though he is more ‘middle-of-the-road’ than Bealer.

Hilary Kornblith is a naturalist who does not shy away from the use of intuitions.

Kornblith believes that naive intuition is useful in the absence of background theory but once theory improves, prior intuitive judgments carry little weight unless they have been endorsed by the progress of the theory (p.135). He argues that as a science matures, the accuracy of scientists' intuitions increases.

Naturalists argue that reliable intuitions *may* exist. Their justification for this is because intuitions can arise from *empirical* interaction with reality, either experience or evolution. Intuitions are reliable because human beings are *reliable indicators*. People are reliable indicators, because they have been interacting with reality for a long time. There is a strong causal story to explain the reliability of intuitions, which makes intuitions theory mediated and mutable (Kornblith, p.134). Naturalists acknowledge the importance of expertise in the authority of intuitions. Success in the sciences demonstrates the effect of expert reliability. For example, a trained geologist reliably determines the difference between marble and granite. Differences between rocks are intuitive and distinctive. Experienced geologists are more reliable than younger geologists are and disagreements are settled by finding the right data to settle matters.

A critic might argue that these intuitions may be correct, but they are not the *evidence* that a rock is marble or granite. Surely our belief that a rock is marble or granite is due to specialized tests? It is true that a *mature* science with sophisticated testing equipment has a variety of evidential sources. However, the naturalist is not deterred by this. The naturalist will grant that philosophy is an immature science and as such, it is deficient in

specialized tests. The evidential value of intuitions in an immature science is greater than those in a mature science. However, even a mature science treats expert intuitions as evidence. For example, a physicist who has an intuition that time passes in one direction, even though her temporally symmetrical equations do not explain the phenomena.

Physics has work to do to explain why the intuitive evidence contradicts the mathematical explanation. Until an answer is found, the physicist's intuitions play a strong evidential part in the philosophy of physics¹⁴.

The challenge for the naturalist is how to justify the analogy of philosophy with the hard sciences. A naturalist wants pre-theoretic intuitions to guide research and then let empirical findings support a theory. The theory is learnt and experts have intuitions that are more reliable. Unfortunately, modern philosophy has many contrasting theories and too little empirical evidence. It is hard to discern what intuitions to take seriously. In our current pre-theoretic state, why should professor and graduate student intuitions be treated as expert and not a layman's? What kind of learning experience would make a philosophy student a philosophical 'expert'? Perhaps philosophy professors are merely training students to have the same unjustified 'expert' intuitions as they have? Nichols, Stich and Weinberg ask whether philosophy students with the 'wrong' intuitions are being weeded out as undergraduates, thus perpetuating the illusion of universality.¹⁵ If there is no basis to discern between the intuitions of the folk and trained philosophers, then the naturalists have a real problem.

¹⁴ See Maudlin, pp 237-252.

¹⁵ "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

3.3 *What Temperature Should the Bathtub be?*

The rationalists have a problem because they cannot explain how we sort out intuitive disagreements. The naturalists have a problem because philosophy is not a developed science, thus our ‘expert’ intuitions may not be more reliable than the ‘folk’s’. At first blush, neither of these methodologies offers a satisfactory method to justify the use of intuitions in philosophy.

In fact, we can examine a real experiment that tests the justifications offered by the two approaches. Nichols, Stich and Weinburg (2001) have done empirical research on intuitions. They tested the assumption of universality of epistemological intuitions, specifically on Gettier cases. A Gettier case occurs when a person has a true belief for which she has good evidence, yet the evidence is belief warrant deprived (e.g. accidentally true) (Nichols et al. p.7). Nichols et al. hypothesized that intuition varied with cultural background, socio-economic status (SES) and philosophical education.¹⁶ Indeed, their results showed East Asians and Indians have significantly different Gettier intuitions to white, westerners (p.8). Researchers supposed that East Asians are more inclined than westerners to make categorical judgments based on similarity, than causal

modifying intuitions at all but simply weeding out students whose intuitions are not mainstream.” Nichols, Stich and Weinburg, p.6

¹⁶ Nichols, Stich and Weinburg base this prediction on work done by psychologists on systematic cognitive differences between E.Asianers and westerners. Psychologists describe E.Asian thought processes as ‘holistic’, 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’. Where as western ‘analytic’ thought 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.’ (p.5]

connection (p.7).¹⁷ The lack of causal tie between the knower and the facts was no obstruction to knowledge. Nichols, Stich and Weinburg also found that Low-SES¹⁸ subjects in both America and Brazil believe that ‘eating an accidentally killed family dog’ is seriously morally wrong, where as high-SES groups in both locations had no moral objections. Finally, students with two courses (or less) in philosophy thought they were much less likely to be brains-in-a-vat than students who had taken more than three courses. What are the possible explanations for these differences? More importantly, how can philosophers account for them?

3.3.1 Rationalist Response

One way for a rationalist to respond is that people from other cultures or lacking educational background do not share the same concept of ‘wrong’ or ‘knowledge’ as western analytic philosophers, they have different epistemic concepts. When East Asian subjects have ‘rational insight’ into their own concepts, they are investigating a different object than their western counterparts. Thus, their different a priori intuition is not a threat to the truth of the propositions. Nichols, Stich and Weinburg respond by saying that if this is true, then it dramatically decreases the interest in the philosophical problems. Rather than being universal, epistemological issues only become questions interesting to a particularly small group of people, specifically white, western analytic

¹⁷ East Asian subjects were Chinese, Japanese and Korean. Some experiments were conducted in Asia, others were East Asian students studying in the United States, or first and second-generation East Asian immigrants to the United States. Western subjects were of European, American ancestry (From endnote 6 in Nichols et al. p. 21].

¹⁸ Nichols et al. used years of education to distinguish low and high socio-economic groups. Their approach is similar to the process used in other research in social psychology. (p.11]

philosophers. Unlike the discipline of pure math, which has true universality, general philosophical problems may not be general at all. Particularly relevant for this paper are the different intuitions of students with varying philosophical backgrounds. The a priori answers are supposed to be ‘out there’, needing only an armchair to pluck them out of the shadowy forms. How does a philosophical education accomplish this better? Once a rationalist admits that a particular cultural or educational experience is needed to do proper a priori thinking (after attaining a concept), then they are dancing dangerously with naturalism.¹⁹ So, there are two issues for the rationalist: 1) Cross-cultural conceptual differences may indicate that epistemology is not universally relevant, and 2) The naturalist threat of needing a specific education to experience the ‘right’ intuitions.

A rationalist might alternatively accept the differing intuitions. So what if people have different Gettier intuitions? After all, truths can take many hundreds of years of reflection, and different attempts at armchair analysis. Perhaps we do not yet know exactly what knowledge is, but that is all right, because the right answer will come out in the end. Unfortunately, this is wishful thinking rather than an explanation. Should we just accept *everyone’s* intuitions as evidence? Every adult? Every culture? Every educational level? If so, the a priori philosophers will have a lot of work to do seeking folk intuitions. Surely, there is something good about trained philosophical thinking? In the same way as trained mathematicians are very good at math. The mathematical intuitions of the folk are not a threat to the truth of numeric theory. Why shouldn’t the rationalist ignore the folk in preference for their own expertise? The rationalist can offer

¹⁹ Bealer acknowledges experience in getting a concept, but that conceptual analysis is a priori (p. It is assumed that all undergraduate students in the same university would have the concept of skepticism and

no reason to justify the preference. For them, intuition is analogous to perception.

Everyone has it as a basic evidential source. Unfortunately even if some intuitions are cognitively impenetrable (i.e. all people see the same thing), many are susceptible to education. Thus, rationalists are saddled with two choices in response to the Stich work.

1) Accept that epistemological (and possibly other philosophical) intuitions are culture-specific, not uniquely accessing universals, or 2) Accept that people have different intuitions and offer an explanation for why some intuitions are better than others. I believe that 1) is unacceptable and the only solution to 2) is to accept the impact of experience on people's intuitions. Therefore, some sort of empirical or naturalist account is needed.

3.3.2 Naturalist Response

Can a naturalistic account provide an adequate justification for choosing between conflicting intuitions and the choice of some 'expert' intuition over others? We have already seen that the ideal methodology of the sciences is not applicable to current philosophy. Is philosophy just a group of adults all trained in the same baseless rhetoric, teaching this to students year after year in a cycle of dependence?

There are two questions: Firstly, does being a fledgling discipline, disqualify philosophy from being a natural science? Understood as a proto-science, philosophy does not have much generally agreed theory. Does this matter? I do not believe it does. I will argue for this by looking at social sciences, specifically psychology. In a new science it *is* more

all be equally capable of conceptual analysis.

difficult to evaluate intuitions. However, the principles of scientific inquiry still hold. Intuitions are used as evidence until such time as they can be validated. Competing theories means a degree of humility in the confidence of conclusions. The thoughts of younger members in the discipline can be revolutionary and more insightful than the intuitions of the experienced faculty. Cross-cultural philosophy would be greatly encouraged to explore how different experiences affect our intuitions. Importantly, experts understand that they are experts within the framework of their current theory.

Interestingly, psychology does have agreement in particular areas. The expertise of a psychologist is not merely current theory, but also an understanding of all the previous methodologies and how they went wrong. Psychologists today are trained in the triumphs and pitfalls of Introspectionism, Gestalt psychology, Psychoanalytic theory, Behaviorism etc.... They know the importance of correct statistical technique, peer review, and cross-cultural confirmation etc... Even more importantly, Psychologists are acutely aware of their own biases and how these can affect experiment design. These lessons are by no means complete. Nevertheless, they do improve the reliability of the intuitions of expert psychologists. The point is that the methodology of psychology is improving, even if the theories themselves are still in a state of contention.

If we treat philosophy as a young science, then the way we rely on intuitions as evidence makes more sense. In the most controversial areas (e.g. moral theory), naïve philosophical intuition is the best evidence we have i.e., folk intuitions just as reliable as a philosophers. Naïve intuitions are also good evidence for any cognitively impenetrable

intuitions, e.g. the intuition that time passes exists for all people. However, in the most agreed areas (e.g. logic), the intuitions of experts are accorded a very high evidential weight. For example, if members of the public (or first year undergraduates) have the intuition that “both $\sim A$ & $\sim B$ ” is logically equivalent of “ \sim both A and B”, then they are just wrong. Their intuition is not evidence of anything. Some areas of philosophy (e.g. Epistemology) believe they have universal intuitions (e.g. Gettier cases), and then are challenged by evidence of dissent. Should these intuitions be treated as evidence (as in the moral case), or as uninformed (as in the logic case above)? Is epistemology more controversial or more agreed? The point is that a naturalistic framework provides the best tools to evaluate this question. Treating philosophy as a burgeoning science is the best way to explain the use of intuitions as evidence in philosophy. There is no shame at being a young science, as long the methodology is rigorous.

I argue that the current expertise in philosophy comes partly from agreed theory, but mostly via our tools of reasoning.²⁰ These include: logical consistency, clarity of ideas, conceptual distinctions, simplicity, etc... These methods of thinking have developed over hundreds of years and put philosophers at a theoretical advantage in certain areas, including academics in other disciplines and the folk. For example, the development of multi-disciplinary studies in cognition has led to greater philosophical rigor in many psychology experiments. The logic and careful attention to structure may make philosophers better at analyzing some aspects of the results of psychology experiments, than the psychologists. Amusingly enough the only group in the numerous experiments

tested with the classic Wason card test to answer correctly is graduate students in philosophy. So, philosophy may not have one agreed theory, but they have progressed in their methods. Indeed, just as psychologists have learnt the advances and pitfalls of introspectionism and behaviorism, modern philosophy has learnt from philosophical behaviorism, phenomenalism and classic operationalism. As long as a good education in philosophy is teaching the right tools of reasoning, the history of failed ideas and the reasons for their failures, then the expert intuitions of philosophers are more reliable indicators.

4. Conclusions

In this paper, I set out to investigate the use of intuitions as evidence in philosophy; by contrasting the way rationalist and naturalists justified them. I did this by defining intuitions as spontaneous, non-inferential ‘seemings’ that can be cognitively impenetrable or susceptible to learning. To count as evidence, I argued that intuitions ‘that p’ should legitimately increase one’s belief ‘that p’. I then examined the explanations of intuitions by rationalists and naturalists. Between both groups, there is agreement that intuitions must be more reliable than other means, in order to be justified.

The rationalists compare their methodology of rational insight with mathematical endeavor. They see intuitions as consistently reliable in the same way that perception is reliable. Rationalists acknowledge fallibility, but are confident that intuitions are a

²⁰ Once we have been trained in logical thinking, then our intuitions about philosophical matters are affected. When a logician is challenged to a new thought experiment, their intuitive response is affected by

reliable source of evidence. Naturalists compare their methodology to the scientific method, incorporating empirical evidence. They argue that intuitions are reliable because they come from experience interacting with the world. The problem with the rationalist story is that only some kinds of intuitions are impenetrable. They cannot explain what philosophers should do when it comes across conflicting intuitions. Often the hardest philosophical problems yield diverse intuitions and rationalists offer no systematic way to discern between them. Experiments have shown that cultural background and education level affect people's intuitions. Therefore some intuitions look less like mathematics and more like ethnography.

On the other hand, because naturalists assume the impact of experience in the world, they can explain why intuitions of expert philosophers are more reliable in certain matters, than those of the folk. Naturalists compare their methodology with the experimental sciences, using intuitions as 'data', open for revision and objective falsification.

Accordingly, philosophy is in a proto-scientific stage. It is not at the beginning, where pre-theoretic intuitions are unsupported by any external evidence. However, we are not yet experts, where intuitions are extremely reliable indicators. Philosophy has made some progress, yet a sense of accomplishment must be carefully monitored. In some areas, (eg. applied ethics), pre-theoretic intuitions are still the best evidence we have. Indeed, in these areas, folk intuitions may have the same evidential value as expert philosophical intuitions. In other areas of philosophy (e.g. logic), there is a great deal of theoretical unity, such that philosopher's intuitions are expert evidence.

the bounds of logic and prior philosophical training.

However, most of philosophy will have a combination of pre-theoretic intuitions and theory mediated intuitions. A good example is the Gettier case in Epistemology. The Gettier problem arose less than forty years ago. This is recent in philosophical terms. It is not surprising then that folk intuitions can influence epistemology in a way they do not in logic. Through philosophical training, adopting the methodology of naturalism and incorporating experimental results, philosophers will become more reliable indicators. They are justified in using intuitions as long as these are mediated by empirical data. .

Bibliography

Bealer, G. (1998) 'Intuition and the Autonomy of Philosophy' in *Rethinking Intuition*, ed. Michael R. DePaul and William Ramsey. Rowman & Littlefield Publishers: Maryland.

BonJour, L. (1999) 'The Dialectic of Foundationalism and Coherentism' in *The Blackwell Guide to Epistemology*, ed. John Greco and Ernest Sosa. Blackwell Publishers: Massachusetts.

Cummins, R. (1998) 'Reflection on Reflective Equilibrium' in *Rethinking Intuition*, ed. Michael R. DePaul and William Ramsey. Rowman & Littlefield Publishers: Maryland.

Descartes, R. (1639) *Meditations on First Philosophy*. Ed. John Cottingham. Cambridge University Press, 1996.

Dennett, D. (1988) "Quining Qualia." *Consciousness in Contemporary Science*.

Eds. A.J. Marcel and E. Bisiach. Oxford: Oxford University Press, 1988.

Reprinted in *Philosophy of Mind*. Ed. David J. Chalmers. New York: Oxford University Press, 2002. 226-245.

Fodor, J. (1998) *Concepts*. New York : Oxford University Press

Gale, T.M; Hawley, C.J; Sivakumaran, T (2003) 'Do mental health professionals really understand probability? Implications for risk assessment and evidence-based practice.' in the *Journal of Mental Health*. Vol 12(4) Aug 2003, 417-430.

Gendler, T.S. (2003) 'Thought Experiments' in *The Encyclopaedia of Cognitive Science*.

Gilovich, T., Vallone, R., & Tversky, A. (1985). The Hot Hand in Basketball: On the misperception of random sequences. *Journal of Personality and Social Psychology*, 17, 295-314.

Goldman, A.I. & Pust, J. (2002) 'Philosophical Theory and Intuitional Evidence' in *Pathways to Knowledge: Private and Public*, Alvin I. Goldman.

Graham, P.J. (1997) 'What is Testimony?' in *The Philosophical Quarterly*, Vol. 47, No. 187, pp.227-232.

Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*. 108, 814-834.

Kripke, S. (1980) *Naming and Necessity*. Harvard University Press

Kornblith, H (1998) 'The Role of Intuition in Philosophical Inquiry: An account with No Unnatural Ingredients' in *Rethinking Intuition*, ed. Michael R. DePaul and William Ramsey. Rowman & Littlefield Publishers: Maryland

Locke, J. (1695) *An Essay Concerning Human Understanding*. Penguin Classics 1998.

Maudlin, T: "Remarks on the Passing of Time", *Proceedings of the Aristotelian Society* volume CII (part 3)., pp. 237-252

Moser, P.K., (1999) 'Realism, Objectivity, and Skepticism' in *The Blackwell Guide to Epistemology*, ed. John Greco and Ernest Sosa. Blackwell Publishers: Massachusetts.

Nichols, Stich and Weinburg, S., (2001): *Metaskepticism: Meditations in Ethno-Epistemology*

<http://ruccs.rutgers.edu/ArchiveFolder/Research%20Group/Publications/Metaskept.htm>

Plous, S (1993) *The Psychology of Judgment and Decision Making*. McGraw-Hill: New York.

Sosa, E (1998) 'Minimal Intuition' in *Rethinking Intuition*, ed. Michael R. DePaul and William Ramsey. Rowman & Littlefield Publishers: Maryland

Stich, S (1998) 'Reflective Equilibrium, Analytic Epistemology and the Problem of Cognitive Diversity' in *Rethinking Intuition*, ed. Michael R. DePaul and William Ramsey. Rowman & Littlefield Publishers: Maryland