

Contemporary Analytic Philosophy and Bayesian Subjectivism: Why Both Are Incoherent

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My purpose in this paper is to argue for two separate, but related theses. The first is that contemporary analytic philosophy is incoherent. This is so, I argue, because its methods contain as an essential constituent a non-classical conception of intuition that cannot be rendered consistent with a key tenet of analytic philosophy unless we allow a Bayesian-subjectivist epistemology. I argue for this within a discussion of two theories of intuition: a classical account as proposed by Descartes and a modern reliabilist account as proposed by Kornblith, maintaining that reliabilist accounts require a commitment to Bayesian subjectivism about probability. However, and this is the second thesis, Bayesian subjectivism is itself logically incoherent given three simple assumptions: (1) some empirical propositions are known, (2) any proposition that is known is assigned a degree of subjective credence of 1, and (3) every empirical proposition is evidentially relevant to at least one other proposition. I establish this using a formal *reductio* proof. I argue for the first thesis in section 1 and for the second in section 2. The final section contains a summary and conclusion.

Keywords: intuitions, Bayesianism, probability, subjectivism, rationality, analytic philosophy, evidence, reliabilism

1. The Problem with Intuitions

In this section, I distinguish between two kinds of intuition that have at one time or another been of interest to philosophers: “classical intuitions” (acquaintance with certain kinds of facts or objects) and “doxastic intuitions” (pre-theoretical, strongly held “intuitive” beliefs). Classical intuitions (if there are any) have inherent epistemic value through a rule of truth, but the epistemic value of doxastic intuitions, since they lack a rule of truth, is problematic. In the heyday of analytic philosophy as conceptual analysis, philosophical intuitions could be taken as classical intuitions of meanings or concepts and thus taken as epistemically validated by a rule of truth. But as belief in the existence of classical semantic or conceptual intuitions diminished while the practice of appeal to philosophical intuitions remained undiminished among analytic philosophers, the need for showing that this practice is epistemically valid became pressing. Against the backdrop of this problem, I consider several versions of a reliabilist/naturalist attempt by Kornblith to provide the validation, arguing that they all fail. If, however, analytic philosophers are happy to replace epistemic value with evidentiary-value, then I argue that the philosophical appeal to doxastic intuitions can be vindicated.

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I begin with the paradigm exponent of classical accounts of intuition, Descartes. For him, intuition is a generic form of immediate awareness present in a variety of modalities (sensory, imaginative, intellectual) and directed to a variety of objects, including immutable essences, sensations (and corporeal images perhaps), the actuality of oneself and one's own thoughts. All genuine forms of perception (those that are not confused judgments or amalgams of perceptions and judgments) are intuitions which, when they are recognized for what they are, Descartes calls clear and distinct ideas. Let's call these "classical intuitions." They are connected to truth via the rule of truth which I would formulate as follows: "If someone has an intuition of a property P, then there exists a substance which either contains P formally (as P is in itself) or contains an analogue of P" (This is based on Descartes' *Principles I*, 52¹). In virtue of the rule of truth, classical intuitions serve as evidence in a foundational account of epistemic warrant.

For those squeamish about Cartesianism or who hold out hope for naturalism, I will allow that any cognition that counts as some kind of immediate access to a fact or state of affairs, including naturalistic accounts of access, counts as a classical intuition for my purposes. I have to say that I like Descartes' account. It seems "intuitive" to me. This use of intuitive is not the classical one, however. Here it seems to mean something subjective—the idea feels right, it is something I am strongly though perhaps not incorrigibly convinced of, it is intellectually satisfying to me. Unlike classical intuitiveness, a property of non-doxastic awarenesses, this kind of intuitiveness is a property of beliefs. I shall call it "doxastic intuitiveness."

In his paper "The Role of Intuition in Philosophical Inquiry: An Account with No Unnatural Ingredients,"² Hilary Kornblith explains the philosophical practice of appealing to intuitions initially in two ways, by offering paradigm examples³ and by appealing to a characterization of Bealer's: Intuitions are "priori intuitions."⁴ My interest in this paper is not with Bealer's formulation of the problem but with Kornblith's main target, a pair of theses he attributes to Bealer which I propose to formulate in the language of classical intuitions as follows: (1) classical intuitions cannot be accommodated within naturalized epistemology and yet (2) we cannot do epistemology (naturalized or otherwise) without them. So naturalized epistemology fails both as an account of what there is and as an account of how we know what there is.

I take it that Kornblith agrees with (1). His dispute is with (2). He maintains that naturalized epistemologists need intuitions but they do not need classical intuitions. Let me first observe that this claim does not seem to me to be borne out by many of the examples from classical analytical philosophy (pre Putnam and Kripke) he discusses.⁵ When philosophers in this tradition appealed to intuitions, they were appealing to facts about the meaning of their words, typically construed as speech dispositions—"What would one say here?" is a typical question, typically answered by saying "My intuition is..." Finding equivalences between speech dispositions then helped to establish analyses of various concepts in the way so familiar to contemporary analytic philosophers. Now this makes good sense if the intuitive appeals are taken as classical intuitions, immediate awarenesses of meanings or speech dispositions in our minds. However, as the received semantic theory changed from internalist to externalist, employing classical intuitions about meanings became seen as an illegitimate source of evidence for the new account for the simple reason that the new theorists denied the existence of classical intuitions. Nevertheless, even the original proponents of externalist theories of meaning often made appeals to intuitive judgments as starting points for their philosophical investigations. A case in point is Hilary Putnam's *Reason, Truth and History*,⁶ of which more below. Similarly in ethics: Appeals to intuitions in meta-ethics could be justified as appeals to immediate awarenesses of our ethical concepts (something we supposedly have direct access to) but when ethical *facts* are supposedly at issue, as they are in

normative ethics, it is unclear how to justify the continuing appeal to classical intuitions. Moreover, among the increasing number of philosophers who have come to reject the very existence of classical intuitions, many continue to collect evidence for their theories by appeal to intuition. (Indeed their arguments against the existence of classical intuitions depend on evidence gathered by appeal to intuitions.) So either a lot of what contemporary analytic philosophers are doing is simply incoherent—and I would not easily discount this possibility—or they are relying on a non-classical variant of intuition. The only one on the table so far is the doxastic variant. This is the variant that Kornblith also relies upon, maintaining that it has at least some evidential value. Here I have to express some doubts.

The fact that one finds a certain proposition intellectually agreeable and subjectively compelling in a pre-theoretical way does not entail its truth. In Cartesian terms, there is no rule of truth for doxastic intuitiveness. But if there is no rule of truth, then it is mysterious how doxastic intuitiveness can function as an intrinsic source of warrant.⁷ Yet that is how it does function in philosophical usage. Even anti-foundationalist philosophers sometimes defend their reliance on a certain proposition as true by appeal to the intuitiveness of that proposition much in the way foundationalists would defend reliance on a proposition by appeal to a classical intuition of the fact making that proposition true. This is what seems to me to be objectionable. The remedy? In their theorizing analytic, philosophers should either learn to live with classical intuitions or learn to live without appeals to intuition.

It appears that Kornblith has staked out some middle ground in his positive characterization of intuitions.⁸ For example, Kornblith discusses a rock collector who looks for the “obvious cases” of rocks that have something in common.⁹ Such judgments are intuitive judgments and appear to be preliminary guesses about which samples will end up in natural geological kinds. The idea is attractive because it lends itself to a naturalistic theory of the connection between intuitions and probable truth. The connection is via evolution and the survival value that stems from being able to make good guesses about whether there is a natural kind underlying a cluster of manifest properties. As noted earlier, a truth connection for doxastic intuitions does seem to me to be essential if they are to have evidentiary value in philosophical practice. Moreover, the idea that doxastic intuitions are preliminary guesses about something or other also seems right to me but I cannot see that the “something or other” is generally that certain property clusters are parts of natural kinds.

Consider, for example, the claim that reliably produced belief is a necessary and sufficient condition of epistemic justification. This is the doctrine known as reliabilism and it underlies Kornblith’s general program of naturalized epistemology. To establish this claim, it is necessary for him to joust with the opponents of this view who maintain that epistemic justification is not (or not only) a matter of reliably produced belief. BonJour, for example, has asked us to consider a case of the clairvoyant whose beliefs are produced without any conscious evidence in a manner completely reliable.¹⁰ BonJour’s intuitive judgment is that in this case the belief fails to be epistemically justified. Kornblith’s intuition presumably is that it *is* epistemically justified. The issue which is put to the test of philosophical intuition is not whether there is a natural kind that somehow underlies all cases of reliably produced belief but whether reliably produced belief in the absence of evidence constitutes epistemically justified belief. Similarly, the use of doxastic intuitions in Putnam’s theory of reference—“Has the ant traced a picture of Winston Churchill, a picture that depicts Churchill?... Most people would say, on a little reflection, that it has not”¹¹—is to establish that a certain item lacks a certain specific property (The property might be a natural-kind property but it does not need to be).

Another account of the privileged epistemic status of doxastic intuitions, also offered by Kornblith, is that doxastic intuitions are *prima facie* warranted judgments. This seems to be more promising as an account sufficiently general to subsume the full range of philosophical intuitions. Unfortunately, unless a connection between *prima facie* warrant and probable truth can be made out the prospects of deriving evidentiary value from *prima facie* justification will, I believe, prove nugatory. No doubt a naturalist will be tempted to make an appeal to evolution here to solve the problem, but it is difficult to see that cognitive mechanisms for making reliable intuitions relevant to philosophical theorizing, e.g., theories of knowledge and reference, will have had a very direct role to play in the successful struggle of our ancestors to repel sabre toothed tigers and attract fertile mates. For example, the demand of surviving in a natural environment crimson in tooth and claw does not seem to require the forging of a highly reliable ability to decide when something does or does not *depict* something else. (Recall that “depiction” is a concept in semantic theory distinguished by Putnam from “similarity.” The ability to accurately detect *similarities* is no doubt strongly selected by evolution.)

A third account of doxastic intuitions, one that I favor, is that they report *paradigm cases*. On this account, an intuition that some predicate P applies to an instance c is not an immediate awareness of the fact that c is P nor is it simply a high degree of conviction that c is P. Rather, intuitions report standard cases to which we appeal to define the contours of our concepts and settle difficult cases. Let us suppose that a case acquires this status because it has played an important role in the development of our concepts and convictions about P. It might, for example, have been the first case in which we heard the predicate P used or it might have been a case in which someone we regard as a linguistic or moral role model has expressed strong convictions about P. We can assume that the saliencies of associations of this kind are recorded at some level in our memory and, on the present proposal, when we say that a certain proposition is intuitive we are reporting the existence of these saliencies.

For example, when someone reports that they find it intuitively obvious that capital punishment is just in certain cases, thereby conferring warrant on the claim that capital punishment is just; they may be reacting to the fact that at a crucial time in their moral development someone they treat as a role model has *said* that capital punishment in such cases is just. Of course the fact that someone—even someone having a special role to play in our cognitive development—says that capital punishment is just does not make it so. What is needed if we are to use the intuition (understood here as a report of a paradigm case) that capital punishment is just in certain cases as evidence in favor of the content of that intuition, is some probable truth-connection between the existence of the paradigm and the content of the intuition.

Let the content of the intuition, the proposition *capital punishment is just*, be our hypothesis, *h*. Let the evidence for this hypothesis, *e*, be the proposition, *the case of capital punishment is developmentally salient in our acquisition of the concept of justice*. The truth connection asserts that the probability of *h* on *e* is quite high. This is a posterior probability governed by the following general form of Bayes' Theorem:

$$\text{pr}(h/e) = \frac{\text{pr}(h) \times \text{pr}(e/h)}{\text{pr}(h) \times \text{pr}(e/h) + \text{pr}(\sim h) \times \text{pr}(e/\sim h)}$$

What I shall call the “reverse probability,” $\text{pr}(e/h)$, is the probability, given the assumption that capital punishment is just, of it being the case that capital punishment is developmentally salient in our acquisition of the concept of justice. Since, on the present account, developmental salience is a socially induced state produced only when suitable role models intervene in our development, $\text{pr}(h/e)$ being high depends on there

being a high positive correlation between two things: (1) capital punishment's being just and (2) the right people coming to think that it is and saying the right thing to me at the right times regarding their beliefs. To be precise, let us suppose that $\text{pr}(h/e)=.67$. There are of course various alternative explanations for e in competition with h comprehended within $\sim h$, e.g., h^* : *Capital punishment is not just but the people in my culture just think that it is*. For the reverse probabilities let us postulate $\text{pr}(e/h)$ as twice the value of $\text{pr}(e/\sim h)$, thus $\text{pr}(e/h)=.67$ and $\text{pr}(e/\sim h)=.33$. Simple arithmetic shows that to get the posterior probability postulated here the prior probability for h needs to be $.5$. We can summarize the formal situation as follows:

Bayes' Theorum (general form)

$$\frac{\text{pr}(h/e)=\text{pr}(h)\text{xpr}(e/h)}{\text{pr}(h)\text{xpr}(e/h)+\text{pr}(\sim h)\text{xpr}(e/\sim h)}$$

Statements

$\sim h$: the disjunction of all hypotheses incompatible with h , e.g., h^* , *capital punishment is not just but the people in my culture just think it is just*.

h : Capital punishment is just.

e : The case of capital punishment is developmentally salient in my acquisition of the concept of justice.

Reverse probability comparisons

$\text{pr}(e/h)=.67$

$\text{pr}(e/\sim h)=.33$

Prior probability assignments

$\text{pr}(h)=.5$

$\text{pr}(\sim h)=.5$

Posterior probability

$\text{pr}(h/e)=.67$

How can we justify assigning a prior of $.5$?

Determining priors is a tricky business. If, like Horwich,¹² we take priors to be measures of the probability of statements conditional on our set of background beliefs b excluding e (and the statement itself of course), we should have at least a rough and ready idea of some relevant relative frequencies. An urn model analogy may help choose these. Imagine that all actions are represented by balls in an urn and the just ones are represented by red balls, those involving capital punishment represented by balls with the letter "C" on them and the unjust acts represented by white balls. Now suppose we have a device which selects all and only balls with a "C." If I knew the frequency of red balls in the class of "C" balls, I could use that number to assign a value to $\text{pr}(h)$ but to obtain such information standard statistical theory assumes that I have a sample in which I can simply observe the ratio between balls with a "C" on them and those that are red. There is, of course, no problem doing this in the model but absent a theory of classical intuitions of moral facts, there is a problem about simply observing the corresponding ratio between acts that are capital punishments and acts that are just. So I do not see how a measure of priors based on frequencies can be obtained in this case. On the other hand, if, like the Bayesian subjectivists, we simply take the degree of subjective conviction we antecedently have in h as the prior probability of h then of course there will be a value for $\text{pr}(h)$. In our example, it would be $.5$. So we have at least a chance of establishing a probable truth-connection for the paradigm. I now argue that (Bayesian) subjectivism is incoherent.

2. The Problem with Bayesian Subjectivism

Pure subjectivism is objectionable as an interpretation of the probability calculus because, as I will now show, it is logically incoherent under the assumptions represented by premises (2), (3), and (4). Here is the proof: it is by *reductio*.

A Reductio-disproof of the Subjectivist Interpretation of Probability

- (1) Some subjectivist interpretation of probability is correct. (*Assumed for reductio*)
- (2) If a subjectivist interpretation of probability is correct then, if any proposition p is known to be true then $\text{pr}(p)=1$. (*Assumption of subjectivism*)
- (3) There is at least 1 empirical proposition e that is known to be true. (*premise*)
- (4) Every empirical proposition e is evidentially relevant to at least one other proposition p , that is: For all e , there is a p such that $\sim[\text{pr}(p/e)=\text{pr}(p)]$. (*premise*)
- (5) For every proposition p and q , $\text{pr}(p/q)=[\text{pr}(p) \times \text{pr}(q/p)]/\text{pr}(q)$. (*Bayes' Theorem: Simplified Form*)
- (6) Let E be a specific known-to-be-true empirical proposition. (*3, Existential Instantiation*)
- (7) For all p , if p is known to be true then $\text{pr}(p)=1$. (*1, 2, Modus Ponens*)
- (8) $\text{pr}(E)=1$. (*6, 7, Universal Instantiation, Modus Ponens*)
- (9) For all p , $\text{pr}(p/E)=[\text{pr}(p) \times \text{pr}(E/p)]/\text{pr}(E)$. (*Universal Instantiation by E for q in 5*)
- (10) For all p , for all q , if $\text{pr}(p)=1$ then $\text{pr}(p/q)=1$. (*Theorem of Probability Calculus*)
- (11) $\text{pr}(E/p)=1$. (*Universal Instantiation, MP, 8, 10*)
- (12) $\text{pr}(p/E)=\text{pr}(p)$. (*Substitution of 8 and 11 in 9*)
- (13) There is a p such that $\sim[\text{pr}(p/E)=\text{pr}(p)]$. (*UI by E in 4*)
- (14) 12&13 are inconsistent.
- (15) \sim [Some subjectivist interpretation of probability is correct]. (*Reductio 1-14*)

The gist of the formal proof is that when a proposition e has a probability measure of 1, it does not raise the posterior probability of another proposition h when e is taken as evidence for h in the probabilistic sense, that is, when h is conditionalized on e . This in turn depends on the fact that when any proposition p with a probability of 1 is conditionalized on another proposition q , the conditional probability of p on q is also 1 (Premise 10). This means that known evidence has zero probative value on anything for which it is the evidence. That is why the possibility of known evidence as understood in subjectivist theories of probability, that is, evidence with a probability of 1, cannot be allowed. We could do this in several ways, for example, by denying that any empirical propositions are known (premise 3), or by denying that if known, empirical propositions are given a credence of 1 (Premise 2). But the latter is an empirical statement about actual degrees of belief (subjective credences) that is almost certainly false.

What of a qualified subjectivism: probability as *rational* degree of belief? Here we must change the interpretation of all the probabilities from *actual* subjective degrees of strength to those which we rationally *should* assign to the beliefs in our corpus. To avoid the *reductio*, we must constrain these assignments in the case of empirical propositions to a degree of credence less than 1. But why should we also rationally constrain our degrees of credence by the axioms of probability? One answer is that to do otherwise would lead to certain kinds of pragmatic paradoxes. It might, for example, leave us open to someone making a Dutch Book against us. A Dutch Book is made against someone when they place certain kinds of bets that will lose no matter how things turn out.¹³ But avoiding irrationality of this kind is to achieve coherence of a certain kind among the

degrees of strength one assigns to one's beliefs and coherence does not amount to truth. So the probable-truth connection for doxastic intuitions cannot be established in this way.

Moreover, rationality "of this kind" is practical rationality relative to assumptions about what those people who want to win bets want. But suppose that I do not want to win bets. Let's say that I am a father playing a game with my young son who lacks confidence in his own game-playing prowess. So I want to ensure that he wins, thus that I lose, at the game we are playing. It is a game of chance, so the rational thing to do is not to use a betting quotient conforming to the probability calculus. This shows that it is not always rational to choose to bet on the basis of probability theory: It depends on what one wants. Suppose that I want to maximize the chance that my beliefs are true. In that case, practical rationality requires that I match my degrees of subjective credence to the objective probabilities of how the world is, and this requires that I first know what those objective probabilities are. Yet this is just what I do not know in the case of intuitive judgments.

3. Conclusion

Suppose that in fact the truth-connection for doxastic intuitions cannot be established in any way.¹⁴ In this case, doxastic intuitions cannot serve as epistemic *evidence* in philosophical theorizing. This is not to say, however, that there is no justificatory value at all in making an appeal to doxastic intuitions—they might have a role to play in the *rationality* of accepting certain points of view in ethics or epistemology or natural science. (I am here contrasting rationality with evidentiality.) Suppose we adopt Richard Foley's notion of rationality¹⁵ focusing specifically on the version he calls "egocentric rationality." From the egocentric perspective, it is rational to seek a framework of beliefs that is stable over various kinds of stresses and with the influx of new information, and is intellectually and explanatorily satisfying (coherent) and contains statements we freely accept as true *vs.* those we feel compelled to accept for reasons of authority or because we can't think of a rebuttal to an argument someone made in favor of them. Doxastic intuitions are important members of the starting team in the game of constructing an egocentrically rational set of beliefs: they have a high degree of pre-theoretical plausibility, and because they are (as far as we know) relatively isolated from other beliefs and principles, they will be relatively immune to the need for revision when it comes to fixing the problems that will inevitably arise elsewhere in the system. In this way, they can be expected to contribute to the overall stability of the system. Beliefs having these properties are a good bet for inclusion in a system which maximizes global cognitive virtues (One of these virtues might be the sort of probabilistic coherence I have just mentioned in my discussion of the subjectivist interpretation of probability). Since the production of such a system is the objective for someone pursuing egocentric rationality, doxastic intuitiveness is a rationality virtue. However, unless we are happy to simply identify truth with egocentric rationality, as I think contemporary analytic philosophy is not, then doxastic intuitiveness is not an epistemic-evidentiary virtue. If this is right, then many contemporary analytic philosophers should either inflate their estimates of the merits of classical intuitions or deflate their hopes of attaining philosophical knowledge.

Notes

1. The foregoing is based on a reading of Descartes I develop in Thomas C. Vinci, *Cartesian Truth* (New York: Oxford University Press, 1998): 13-19.

2. Hilary Kornblith, "The Role of Intuition in Philosophical Inquiry: An Account with No Unnatural Ingredients," published

in M. DePaul & W. Ramsey, eds., *Rethinking Intuition* (Lanham, MD: Roman and Littlefield, 1998), 129-42.

3. *Ibid.*, 130.

4. *Ibid.*, 131. Bealer's article is George Bealer, "Intuition and the Autonomy of Philosophy" in DePaul and Ramsey, *Rethinking Intuition*, 201-39.

5. Kornblith, "The Role of Intuition," 130.

6. Hilary Putnam, *Reason, Truth and History* (Cambridge: Cambridge University Press, 1981).

7. The notion of an "intrinsic source of warrant" is equivalent to Pollock's notion of logical evidence (John Pollock, *Knowledge and Justification*. Princeton, NJ: Princeton University Press, 1974). Pollock distinguishes between *logical evidence* and *contingent evidence*. Logical evidence is evidence which by itself entails either the truth of the statement it supports (*logical/conclusive evidence*) or least the *prima facie* warrant of the statement it supports (*logical/prima facie evidence*). The state of affairs, *seeing that there is an apple on the table* is logical/conclusive evidence for the statement there is an apple on the table. Contingent evidence, on the other hand, is only one among several premises needed to entail warrant. Inductive reasoning from doxastic intuitions will require that the intuitive evidence be taken in conjunction with some general premise, usually statistical, before warrant is entailed and will therefore be an example of a contingent reason.

8. Kornblith, "The Role of Intuition," 132ff.

9. *Ibid.*, 134.

10. Laurence Bonjour, *The Structure of Empirical Knowledge* (Cambridge, Mass: Harvard University Press, 1986), 37-45.

11. Putnam, *R,T,H*, p. 1.

12. Paul Horwich, *Probability and Evidence* (Cambridge: Cambridge University Press, 1982), 32ff.

13. A reader interested in learning about Dutch Book Arguments may consult the article in the Stanford Encyclopedia: Vineberg, Susan, "Dutch Book Arguments," *The Stanford Encyclopedia of Philosophy* (Spring 2016 Edition), Edward N. Zalta (ed.), URL=<http://plato.stanford.edu/archives/spr2016/entries/dutch-book/>.

14. I have not, of course, shown that the (unsuccessful) ways of establishing this connection discussed above are exhaustive but my guess is that these ways are representative: if they are unsuccessful, the others will be as well.

15. Richard Foley, *Working without a Net* (New York: Oxford University Press, 1993).