

## Two Legacies of Goldman's Epistemology

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Abstract: Goldman's epistemology has been influential in two ways. First, it has influenced some philosophers to think that, contrary to erstwhile orthodoxy, relations of evidential support, or confirmation, are not discoverable a priori. Second, it has offered some philosophers a powerful argument in favor of methodological reliance on intuitions about thought experiments in doing philosophy. This paper argues that these two legacies of Goldman's epistemology conflict with each other.

### I. The Heterodox Legacy of Goldman's Epistemology

In his seminal paper "What is Justified Belief?"<sup>1</sup>, Alvin Goldman distinguishes two uses of the term "justified" in epistemology:

"Let us distinguish two uses of 'justified': an *ex post* use and an *ex ante* use. The *ex post* use occurs when there exists a belief, and we say of that belief that it is (or isn't) justified. The *ex ante* use occurs when no such belief exists, or when we wish to ignore the question of whether such a belief exists. Here we say of the person, independent of his doxastic state vis-à-vis p, that p is (or isn't) suitable for him to believe."<sup>2</sup>

Why do we have both of these uses of "justified"? The distinction between *ex ante* and *ex post* justification was recognized before Goldman's paper, though typically under other labels. Most epistemologists today follow Roderick Firth in using the terms "propositional" and "doxastic" to label the distinction between the two different kinds of justification that Goldman means to distinguish in the passage above, or (as Firth and some others sometimes call it) "warrant". Here is how Firth introduced those terms:

"the epistemic term 'warranted belief' is ambiguous ... there is an important respect in which a belief may be warranted although we are subject to epistemic criticism for having that belief. We may be criticized on the ground that our doxastic state is not psychologically based on or derived from the relevant evidence in a rational way. We may not have taken account of enough of the relevant evidence. Or we may have made logical mistakes. Perhaps one mistake has compensated for another and has thereby yielded, fortuitously, the very conclusion

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<sup>1</sup> Goldman 1979.

<sup>2</sup> Ibid., 21.

that would have been reached by rational inference. In some of these cases we might be said to believe for the wrong reasons. Or perhaps we believe, at least in part, because we find the belief comforting. We may even believe, to take an extreme case, as a result of hypnotic suggestion, making it seem inappropriate... to speak of our 'reasons' for believing. Yet in all these cases our belief might be justifiable by rational inference from our evidence. In all these cases there is some respect in which our belief is warranted and some respect in which it is not."<sup>3</sup>

This passage insinuates what all subsequent theorists accept: that an agent's having propositional warrant, or justification, for believing some proposition  $p$  is not a sufficient condition for an agent's belief that  $p$  to be doxastically warranted, or justified. (I will henceforth follow Goldman, Kornblith and most subsequent theorists in using the term "justification" rather than "warrant": this is intended to be a purely terminological choice, and not to carry any argumentative weight.) But the passage also points out – in its mention of the two compensating mistakes – that having a propositional justification for believing that  $p$ , and believing that  $p$  on the basis of that particular propositional justification, are even jointly insufficient for having a doxastically justified belief. Turri 2010 gives a vivid example of a case in which an agent has propositional justification for believing a proposition, and believes it on the basis of that justification, and yet fails to have a doxastically justified belief in that proposition:

"Mr. Ponens and Mr. F.A. Lacy each knows the following things:

- (P5) The Spurs will win if they play the Pistons.
- (P6) The Spurs will play the Pistons.

This is a paradigm case of propositional justification. <The Spurs will win> is propositionally justified for each man because he knows (P5) and (P6). ...From these two premises, and only these premises, each man draws the conclusion:

- (P7) Therefore, the Spurs will win.

...But the devil is in the details. Ponens applies *modus ponens* to reach the conclusion. Lacy, however, applies a different inference rule, which we may call *modus profusus*: for any  $p$ ,  $q$ , and  $r$ :  $(p \wedge q) \rightarrow r$ . Lacy's belief that the Spurs will win is definitely not doxastically justified; following that rule could never lead to a justified belief."<sup>4</sup>

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<sup>3</sup> Firth 1978, 218. Although Firth's only positive characterization of the "propositional" notion of warrant in this passage involves justifiability "by rational inference from our evidence", I assume that we can accept the distinction between propositional and doxastic warrant without commitment to any such specific condition as constitutive of propositional warrant.

<sup>4</sup> Turri 2010, 317.

This shows that doxastic justification cannot be explained merely in terms of propositional justification and the basing relation. If we are to understand what is involved in a belief's being doxastically justified, we must understand it in some other way.

One way to solve this problem would be to spell out an account of the basing relation that grounds a distinction between *proper* basing – i.e., basing that converts propositional into doxastic justification – and *improper* basing – i.e., basing that does not do so. By appeal to such an account, we could explain why it is that, while Ponens's conclusion is doxastically justified, Lacy's conclusion is not. But no such account of the basing relation has yet been offered.<sup>5</sup>

How, then, should we understand *ex post* justification, if not in terms of *ex ante* justification plus basing? Goldman 1979 proposes an answer: *ex post* justified belief is belief that results from a sufficiently reliable (i.e., truth-conducive) process. Ponens' belief that the Spurs will win is *ex post* justified because it results from a reliable process, viz., the use of modus ponens, applied to known inputs (P5 and P6). Lacy's belief, however, is not *ex post* justified because it does not result from a reliable process. Though both characters believe the same proposition, and both infer it from the same premises, one of them uses an inferential route that is reliable, whereas the other doesn't. Thus, the former's belief is *ex post* justified, while the latter's is not.

So the distinction between *ex ante* justification and *ex post* justification is meant to mark a distinction between *being in a sufficiently good position* to believe, on the one hand, and *believing sufficiently well*, on the other. It is a substantive, and controversial, issue what puts one in a sufficiently good position to believe, and it is an equally substantive, and controversial, issue when one believes sufficiently well – but some such distinction is one that can be recognized by all epistemologists, whatever their specific commitments to its nature.

After developing a reliabilist account of *ex post* justified belief, Goldman then offers the following account of *ex ante* justifiedness in believing:

“Person S is *ex ante* justified in believing p at t if and only if there is a reliable belief-forming operation available to S which is such that if S applied that operation to his total cognitive state at t, S would believe p at t-plus-delta (for a suitably small delta) and that belief would be *ex post* justified.”<sup>6</sup>

Over the next few decades, Goldman refined his account of *ex post* justified belief, and defended it against many prominent objections. But one constant in his epistemological theorizing has been to treat *ex ante* justification as explicable in

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<sup>5</sup> Actually, this claim in the text is false: such an account has been offered, but it has not yet been published. See Neta manuscript for such an account.

<sup>6</sup> *Op cit.*, 21.

terms of *ex post* justification. This distinguishes Goldman's view from those of his predecessors, and it is this distinctive feature of Goldman's view that Hilary Kornblith<sup>7</sup> takes to be one of the most important and consequential legacies of Goldman's epistemological work.

Why is this legacy so consequential? One of the chief enterprises of analytic epistemology in the half-century prior to the publication of Goldman's paper was to develop, *a priori*, an account of the relation of *evidential support*, or *confirmation*. This enterprise was typically conceived as a branch of logic, and thus as employing the *a priori* methods of logic.<sup>8</sup> But this notion of evidential support, or confirmation, was traditionally thought to be crucial for *ex ante* justification: as Firth suggests in the passage quoted above, an agent could enjoy *ex ante* justification with respect to some proposition by virtue of the agent's evidence *supporting*, or *confirming*, that proposition. An *a priori* account of evidential support, or confirmation, in conjunction with an account of what it was for an agent to *possess* some evidence, might thus seem to offer the prospect of understanding *ex ante* justification – and thereby, in conjunction with some further account of proper basing, offer the prospect of understanding *ex post* justification. On this view, there is an important component of *ex ante* justification – the evidential support, or confirmation, component – that can be understood *a priori*, and quite independently of empirically ascertainable features of human psychology. If empirical evidence plays any role at all in understanding *ex ante* justification, it can be only by virtue of its role in understanding specifically what it is for an agent to possess some evidence. That, at any rate, was the orthodox view prior to the publication of Goldman's seminal paper. Even as naturalistic a philosopher as Quine seems to have held this view: nowhere does Quine argue that empirical psychology can help us to ascertain relations of evidential support or confirmation – the only naturalization project in epistemology for which Quine argues, or even advocates, is the project of empirically ascertaining the kinds of evidence on the basis of which agents could enjoy justification for belief.<sup>9</sup>

If, however, *ex ante* justification should not be understood in terms of an account of possessing evidence plus an account of evidential support, but should rather, as Goldman proposes, be understood in terms of *ex post* justification, then the philosophical enterprise of trying to build an account of justified belief by starting with an *a priori* account of evidential support, or confirmation, proceeds in the wrong direction. Rather than trying to understand the phenomenon of *ex post* justified belief by starting with an *a priori* investigation of evidential support, or confirmation, we should instead think of the right account of evidential support, or confirmation, as falling out of an empirically informed account of *ex post* justified

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<sup>7</sup> See Kornblith forthcoming.

<sup>8</sup> Perhaps the most useful summary of this influential movement in the history of philosophy is provided in Salmon 1967.

<sup>9</sup> I argue for this interpretation of Quine's naturalistic program in epistemology in Neta 2012.

belief. Thus, what was revolutionary about Goldman's suggestion concerning the relation of *ex ante* and *ex post* justification was that it proposed a complete reorientation of epistemological theorizing: rather than starting with an *a priori* confirmation theory, and trying to add empirical components to it to derive a theory of *ex post* justified belief, Goldman's proposal (at least as understood by Kornblith) was that we should begin with an empirically informed theory of *ex post* justified belief, and then let our understanding of evidential support, or confirmation, fall out of that theory, by factoring out what evidence we have. This proposal is thus a rejection of the whole enterprise of a *a priori* confirmation theory – or at least that is how it has been read by Kornblith, who takes himself to be developing Goldman's reliabilism and naturalism.

## II. The Orthodox Legacy of Goldman's Epistemology

But Goldman's work has another important legacy as well. Looking again at his paper "What is Justified Belief?", we find Goldman arguing against alternative accounts of *ex post* justification, and in favor of his own account, not by appeal to empirical data concerning actual cases, but rather by appeal to our intuitions about stipulated cases:

"Is [a particular version of Chisholm's account] correct? Not at all. We can imagine cases in which the [terms of that account are] satisfied but we would not say that the belief is justified. Suppose, for example, that *p* is the proposition expressed by the sentence 'I am in brain-state B', where 'B' is shorthand for a certain highly specific neural state description. Further, suppose it is a nomological truth that anyone in brain-state B will *ipso facto* believe he is in brain-state B. ...According to [the account at issue] such a belief is justified. But that is clearly false."<sup>10</sup>

This is just one of many examples in which Goldman's argument depends upon our intuitions about stipulated cases – and in his later work, Goldman explicitly defends this methodological reliance upon intuitions about stipulated cases. Such reliance is ubiquitous across different philosophical disciplines in at least the half-century preceding the publication of Goldman's paper. Analytic philosophers interested in understanding knowledge, or confirmation, or free will, or what have you, have historically developed theories of knowledge, or confirmation, or free will, or what have you, and then tested those theories against our intuitions about stipulated cases. A philosopher will, for instance, propose a theory of some topic – for instance, knowledge – and then consider whether the verdicts that theory issues about whether stipulated cases are cases of knowledge match our intuitions about whether those cases are cases of knowledge. Mismatches between the verdicts of the theory and our intuitive verdicts are held to disconfirm the theory. But why is such a mismatch held to be disconfirming? Why think that our intuitions about

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<sup>10</sup> *Op. cit.*, 5 – 6.

whether or not a stipulated case exemplifies the property in question have any evidentiary significance whatsoever?

Of course, it's not just *any* intuitions that philosophers have held to be evidentially significant in this way: intuitions formed as a result of inattention, or misunderstanding, or the bias to preserve one's favorite theory, are not thought to have such evidential significance. The intuitions that do – according to the methodological orthodoxy being discussed here – have evidential significance for philosophy are those intuitions that are held not even partly as a result of such untoward influences. To avoid the complicated question of precisely which influences these are, let us say that, according to methodological orthodoxy, it is intuitions formed under “normal circumstances” that have evidential significance for philosophy. The circumstances that count as “normal” will then be just those circumstances – whichever they are – under which someone's holding a particular intuition about a stipulated case will make it the case that the intuition itself has evidential significance for philosophical theorizing.

What is an intuition? Is it a judgment? An inclination to judge? A presentation of some content? A disposition to believe? A phenomenological state with no content? There is no consensus on the correct answer to this question, but it doesn't matter for our purposes: the methodological orthodoxy that Goldman defends can be spelled out in any of these ways, consistently with Goldman's defense. All that matters for Goldman's defense is that, whether or not an intuition itself has a propositional content (or any content), an agent's having an intuition under normal circumstances constitutes a reliable way for an agent to form beliefs about conceptual possibilities and necessities, and thereby constitutes a way for an agent to have *ex post* justified beliefs about those conceptual truths, and also to have *ex ante* justification for holding those beliefs, whether or not she holds them.

I've said that the intuitions that, according to the methodological orthodoxy at issue, have evidential significance for philosophy are “intuitions about stipulated cases”. This is not to commit myself to the claim that the intuitions themselves have propositional content, but only to the claim that having an intuition, under normal circumstances, constitutes having evidence for some propositional content. But of course there are many different propositional contents concerning stipulated cases: which of these contents do I get evidence for when having which intuitions? For instance: suppose Vladimir Putin fires a missile into Poland. What would happen then? In response to this question, you might have some intuitions (if these intuitions have contents, then those contents might concern how NATO would respond to this action, or how the Polish government would respond, etc.). You might even have such intuitions under normal circumstances, but the methodological orthodoxy that Goldman defends says nothing about the evidential significance of such intuitions. It pronounces only on the significance of intuitions concerning the extension of some concept to a stipulated case.

Finally, according to the orthodox methodology that Goldman defends, not all concepts are such that we can gain evidence concerning their extension by consulting our intuitions about stipulated cases. Natural kind concepts are not like that: we don't gain evidence concerning the extension of water by consulting our intuitions about whether a stipulated case is a case in which there is water or not. Of course, we may have such intuitions, but if such intuitions are credible, it is because they are shaped by the intuiting agent's understanding of what water is, and such understanding is gained on the strength of empirical evidence, not on the strength of the intuiting agent's intuitions. The credibility of intuitions is not the same as their evidentiary significance, since that credibility can derive from independent evidence. The methodological orthodoxy that Goldman defends says not only that intuitions about whether stipulated cases fall into the extension of some concept are credible – it says that they are evidentiary. And for the latter to be true, the concept at issue must not be a natural kind concept, or some other concept our understanding of which is gained on the strength of non-intuitional evidence.

Having issued all the qualifications above, we can now return to our question: Why think that our intuitions about whether or not a stipulated case exemplifies some philosophically interesting property have any evidentiary significance for philosophy? Although Goldman's own reliance upon intuitions concerning stipulated cases have always presupposed some answer to this question, he spelled out such an answer only relatively recently: in Goldman 2007, he argued that our intuitions about stipulated cases – at least when those intuitions are held under normal circumstances – partly constitutive of the concepts that we are asked to consider applying to the cases in question.<sup>11</sup> In other words, my concept of knowledge is partly constituted by my intuition (under normal circumstances) that Gettier subjects do not have knowledge, and also by my intuition (under normal circumstances) that there are plenty of ordinary facts that we know. This is not merely to say that someone who fails to have those intuitions under normal circumstances is someone who lacks my concept of knowledge (even if she might use the word "knowledge" to express some different concept). My intuitions about cases are not merely constitutive of my concept in the sense that my having that concept is partly constituted by having those intuitions. They are also constitutive of my concept in the further sense that the concept has the extension that it has in virtue of those intuitions about that extension: the intuitions, when held under normal circumstances, offer correct indications about the extension of the concept because, under those circumstances, they constitutively *determine* the extension of the concept. This constitutive account of concept extension implies that intuitions about the extension of a concept – at least when held under normal circumstances – are reliably accurate indicators of that extension. And, according to Goldman's own account of *ex post* justification, this implies that beliefs formed by accepting the evidence provided by such intuitions in normal circumstances are *ex post* justified beliefs, at least in the absence of defeaters. Thus, to theorize about knowledge, or confirmation, or free will, or what have you, by accepting the evidence provided by

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<sup>11</sup> *Ibid.*, 14 – 5.

those intuitions, held under normal circumstances, concerning the extension of those concepts, is to theorize rationally. This is Goldman's reliabilist defense of philosophical methodological orthodoxy. Because this defense of orthodoxy has been highly influential in the decades since Goldman, I will refer to this as the "orthodox" legacy of Goldman's epistemology.

Thus, the heterodox legacy of Goldman's epistemology is to try to develop our confirmation theory on the basis of an empirically-informed, reliabilist account of ex post justified belief.

The orthodox legacy of Goldman's epistemology is to defend the reliance on intuitions about stipulated cases in philosophical inquiry.

In this paper, I argue that these two legacies of Goldman's reliabilism are in conflict, and cannot be fully reconciled.

In the next section, I argue that, in order for Goldman's proposal concerning the relation between ex ante and ex post justification to provide for the radical reorientation of confirmation theory that Kornblith recommends, that proposal must be understood in a very specific way. And in the following section, I argue that any proposal understood in that specific way will be subject to clear, intuitive counterexample.

Left Goldmanians like Kornblith reject the orthodox legacy of Goldman's epistemology, while right Goldmanians like Comesana reject the heterodox legacy. But we cannot accept both.

### **III. Two Ways of Thinking of *Ex Ante* Justification**

In section I, we characterized ex ante justification as *being in a sufficiently good position to believe*. But this italicized phrase can be understood in at least two different ways. To see what these are, let's begin by considering a case of a sort described in Smithies 2016, in which "I have meteorological evidence that it will rain, while also having psychological evidence that I don't believe it will rain."<sup>12</sup> In such a case, my total evidence may strongly – even conclusively – support the proposition:

(MOORE) It will rain and I do not believe that it will rain.

Despite having evidence that conclusively supports this proposition, this is not a proposition that I ought to believe: if I were to believe MOORE, such a belief would be obviously self-defeating and irrational. Thus, for my evidence to support a

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<sup>12</sup> Smithies 2016, 404.

proposition is not a sufficient condition of its being the case that I ought to believe the proposition.

It might be objected that the argument above assumes falsely that if my evidence supports each of two propositions, then it also supports their conjunction. Although this assumption is indeed false, it has nothing to do with the argument above, which assumes only that if my evidence *conclusively* supports each of two propositions, then it also conclusively supports their conjunction.

Is there reason to doubt that weaker assumption? Some philosophers might cite the case of the infinite lottery with one guaranteed winner: in such a case, an agent has evidence that makes each ticket's loss is 100% likely, and yet the agent also knows that one ticket will be a winner. In such a case, the agent knows that the conjunction of all of her conclusively supported beliefs about lottery tickets cannot be true. But that knowledge serves to defeat the conjunction of her conclusively supported beliefs. There is nothing about the (MOORE) case that requires us to assume the existence of an analogous defeater there: we can assume that the case is one in which the meteorological evidence indicates nothing about my beliefs, and that the psychological evidence indicates nothing about the weather. (Imagine that my total evidence leaves my reliability as a weather predictor as a matter of chance, and leaves the weather's reliability as a predictor of my beliefs as a matter of chance.) Smithies can therefore rest the argument above on a still weaker assumption: *if my total evidence conclusively supports each of two propositions, then – so long as I have no evidence against the truth of their conjunction – my total evidence also conclusively supports the conjunction of those two propositions.* There is no reason to doubt this assumption, but it is strong enough to allow Smithies's argument to generate a gap between having conclusive evidence for p, on the one hand, and its being the case that you ought to believe that p, on the other – and the former is not sufficient for the latter.

Of course it is also an assumption of Smithies's argument that a proposition can be conclusively supported by an agent's evidence, even when the agent does not believe that proposition. This assumption strikes me as uncontroversial, and I don't know of any philosopher who denies it. We will return to it below.

Since your evidence with respect to p cannot be better than conclusive, it follows that there is a difference between its being the case that you ought to believe that p, on the one hand, and whatever level of evidential support you might have for p, on the other – and the former is not necessary for the latter. When we use the term “ex ante justification”, or “propositional justification”, we might be referring to either of these two different conditions. We might decide to say that an agent A has ex ante justification for p IFF A ought to believe p (whether or not she believes it). Or we might decide to say that an agent A has ex ante justification for p IFF A has sufficient *ultima facie* evidence for p (whether or not she believes it, and even whether or not she ought to believe it). The evidentiary fact about A might explain, or help to

constitute, the deontic fact about A, but it is not sufficient for it, and so they are not equivalent.

It's a purely terminological decision how we use the terms "ex ante justification" or "propositional justification". But notice that this decision will have implications for how to understand Kornblith's claim that we should treat *ex ante* justification as explicable in terms of *ex post* justification. If we use the term "ex ante justification" to denote an evidentiary fact, then Kornblith is saying that we should treat evidentiary facts as explicable in terms of *ex post* justification. But if we use the term to denote a deontic fact, then Kornblith is saying that we should treat deontic facts as explicable in terms of *ex post* justification. Perhaps Kornblith himself would want to make both claims. But, as I will argue now, only one of these two claims has the heterodox implications that Kornblith takes to follow from Goldman's epistemology.

Consider the claim that what A ought to believe is to be understood in terms of which possible beliefs of A's are *ex post* justified. That claim is consistent with virtually every view concerning relations of evidential support, or confirmation. In particular, it is consistent with the view that such relations can be understood a priori, through the logic of confirmation. Whatever the logic of confirmation might tell us about which hypotheses are supported by which bodies of evidence, and whatever the study of evidence possession might tell us about what A's total evidence is at a time, the conjunction of such facts do not entail what A ought to believe.

Do they metaphysically determine what A ought to believe? Or do they determine it in conjunction with some further specific range of facts? On the first proposal, what A ought to believe can be represented as a composite of

- (a) facts about what evidence A possesses at a time
- (b) facts about the support that such evidence provides to various hypotheses.

On the second proposal, what A ought to believe can be represented as a composite of those first two kinds of facts along with

- (c) some specific range of further facts.

Could either of these proposals be correct? Let's focus on the second proposal, since it is logically weaker – if it is wrong, then so is the first. If the second proposal were correct, then we might still be somehow able to read the (b) facts off of the facts about what A ought to believe, which are themselves to be understood in terms of which possible beliefs of A's are *ex post* justified. Thus, we might hope, the (b) facts are discoverable by means of the same kind of empirical investigation as the facts about which possible beliefs are *ex post* justified.

Such hope rests on there being some specific range of further facts (c), that can be understood independently of the (b) facts, and so can be factored out in reading the (b) facts off of the data about *ex post* justification. And this hope might seem

realizable, since the only factor that we have so far seen to affect the relation between what an agent's evidence supports, on the one hand, and what an agent ought to believe, on the other, is whether or not the propositional content of the belief at issue suffers from a kind of Moorean self-defeat. Couldn't we, then, read the (b) facts off the data about ex post justified belief, once we fix the "self-defeat" parameter?

Not so fast. As many discussions since James's famous essay "The Will to Believe"<sup>13</sup> have made clear, there are many different factors that affect the relation between what an agent's evidence supports, on the one hand, and what an agent ought to believe, on the other. My total evidence supports the hypothesis that I will enjoy no more than an 80% chance of quitting smoking. But it is absolutely crucial that I do quit, and that I resolve to do so. Should I believe that I will quit?<sup>14</sup> My total evidence assigns a 99.9% to this lottery ticket's losing. But should I believe that it will lose? If so, should I then believe of each lottery ticket that it will lose? But how, then, can I avoid being logically committed by my commitment to the conclusion (which I may know to be false) that no ticket will win?<sup>15</sup> My total evidence assigns a 90% probability to this train's being the one I need to take. But if my getting on the wrong train would result in disaster, should I believe that this train is the one I need to take, or should I still withhold until I get more evidence?<sup>16</sup> In all of these cases, what I ought to believe is not – or at least may plausibly not be – fully determined by what my evidence supports. And it is entirely unclear how to reduce the variety of (mostly pragmatic) factors that interfere with the connection between what an agent's evidence supports, on the one hand, and what an agent ought to believe, on the other, to some manageable totality.

If what we've called "the heterodox legacy" of Goldman's epistemology is to be in any sense heterodox – if it is pose a challenge to the project of trying to understand evidential support, or confirmation, a priori, then we must treat it as making a claim not about how to understand what it is for it to be the case that an agent *ought* to hold a belief, but rather about how to understand what it is to have *sufficient evidence* for a proposition. If Goldman's account of ex ante justification is to be understood as an account of what it is for an agent to have evidence that sufficiently supports a proposition, then Goldman's account of ex ante justification in terms of ex post justification is indeed heterodox.

Unfortunately, such an account is subject to clear intuitive counterexample.

#### **IV. The Conflict Between the Two Legacies**

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<sup>13</sup> James 1896.

<sup>14</sup> Marusic 2015.

<sup>15</sup> Nelkin 2000.

<sup>16</sup> Fantl and McGrath 2002.

Recall Goldman's account of *ex ante* justification:

"Person S is *ex ante* justified in believing p at t if and only if there is a reliable belief-forming operation available to S which is such that if S applied that operation to his total cognitive state at t, S would believe p at t-plus-delta (for a suitably small delta) and that belief would be *ex post* justified."

Recall that, if this account is to be in any way heterodox, it must be an account of the conditions under which S has sufficient evidence for p. So we can specify the heterodox version of the account as follows:

*Person S has sufficient evidence for p at t if and only if there is a reliable belief-forming operation available to S which is such that if S applied that operation to his total cognitive state at t, S would believe p at t-plus-delta (for a suitably small delta) and that belief would be ex post justified.*

The account is schematic: it leaves open the value of delta, and also leaves open the modal notion of availability. Without specifying either of these, the account makes no predictions about stipulated cases by appeal to which we can (following methodological orthodoxy) test it against our intuitive verdicts about those same cases. But what we can do is consider what constraints must be met on a specification of the value of delta, and on a specification of the notion of availability, in order for the account to avoid a clash with our intuitive verdicts. As I will argue in this section, there is no way to specify such constraints so that the account's verdicts about stipulated cases avoid clashing with our intuitive verdicts about those same cases.

Consider the following case:

Toshiro is a normal human agent with a normal visual system, and so he forms visually-based beliefs about colors, shapes, and medium-sized objects in his environment in a normal way. While looking at a series of large, clear, and homogeneously-colored squares on a screen in front of him, he sees them and justifiably believes *this one is red*, then a moment later, when shown the next one, *this one is blue*, and then another moment later, when shown the next one, *this one is yellow*, and so forth, for a long series of images on the screen in front of him. Although Toshiro's visually-based belief-forming processes have always functioned normally, and therefore reliably under (what Toshiro normally knows how to identify as) normal circumstances, something strange happens while Toshiro is looking at the images on the screen. Unbeknownst to Toshiro, his visual system suddenly changes its operation in the following way: although it continues to produce conscious visual experiences in the same way that it always has, the time between the production of the conscious visual experience, on the one hand, and the visually-based belief, on the other, increases dramatically – so dramatically, in fact, that it is equal to the time that it takes the screen to alternate from one image to the next. Thus, even while Toshiro is enjoying a conscious visual experience of a brown

picture, he does not yet believe *this one is brown*; that is not a belief that he will end up forming until the moment when he moves to the purple picture, and thus enjoys a conscious visual experience of a purple picture.<sup>17</sup> Notice that this change in Toshiro's visually based belief-production also changes the referent of his demonstrative concept: when he has a thought about "this one", he is not thinking about the picture directly in front of him, the one that causes him to have his current conscious visual experience. Rather, he must be thinking about the picture that was in front of him just previously, the one that caused him (through this unusually slow process) to have his current visually-based belief, and thus to token the demonstrative concept "this one"? This is because the referent of a demonstrative concept depends partly on what caused the use of that concept in a particular context.

At exactly the same time that Toshiro's visual system changes its operation in the way described above, Toshiro's memory also changes its operation in the following way: moving Toshiro's conscious visual experience from working memory to long-term memory suddenly starts to take longer as well – in fact, it takes the same length of time that it takes to change from one image to the next on the screen in front of Toshiro. During this period of time, the conscious visual experience has been removed from working memory, but is not yet in long-term memory, and so Toshiro does not recall it at all. Thus, while Toshiro is looking at a purple picture, having a conscious visual experience of a purple picture, and thinking this one is brown (because the brown picture was the one he saw previously), he also does not recall the conscious visual experience of brown that he had just previously. He will not recall that experience until after the image changes from the purple image to the one that follows it. Toshiro's experience, in other words, is a bit like that of someone suffering from a kind of delayed blindsight, but not realizing it: he forms reliably true beliefs concerning things that were directly in front of him, but his beliefs are true only of what was directly in front of him a moment ago, though he is temporarily unable to access the earlier conscious visual experience on which the belief is based. In short: there is no moment in time at which Toshiro's demonstrative beliefs about the colors of images on the screen in front of him are either justified by or caused by the perceptual and memorial states that he has at that same moment.

After the changes described occur in Toshiro's visual and memory systems, does Toshiro continue to have sufficient evidence for the beliefs that he forms, when he forms them? For instance, while Toshiro is looking at the purple picture, and having a clear visual image of the purple picture as purple, and having no recollection at all of the brown image that he saw a moment earlier, does he have sufficient evidence for the proposition that he believes at this very moment, viz., *that one is brown*?

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<sup>17</sup> Berker 2008 considers the hypothesis that conscious perceptual experiences are partly constituted by the conscious beliefs that they cause. I'm agnostic on the truth of this hypothesis, but the hypothesis does not imply that the belief that partly constitutes the experience cannot occur later than the experience.

Clearly not: his current evidence does not in any way support that proposition. His current perceptual evidence is of a purple image, and his current memorial evidence presents him with some of the images that he saw prior to the brown one. Also, it's not just that his current perceptual and memorial evidence cannot support either of those propositions – we may also assume that the sequence of colors presented to Toshiro is random, and so there is no way for Toshiro to infer anything from his current perceptual and memorial evidence about the color that is in front of him now. Toshiro thus has reliably true beliefs about the colors of the images that were before him, though he has no evidence to support those beliefs at the time that he holds them. He also has compelling perceptual evidence to support other beliefs about the colors of the images that are before him at each moment, but his belief-forming mechanism operates so slowly that he has no way to form the beliefs that are supported by this evidence during the period of time while they are so supported. In short, Toshiro can hold reliably true beliefs about the colors that were before him, but only once he ceases to have evidence that supports those beliefs.

Let's add that Toshiro is aware of none of these bizarre changes, and so he cannot use his own beliefs as evidence of their own truth concerning the colors of the images that were before him prior to his forming those beliefs.

I hope I've now described the strange case of Toshiro clearly enough for present purposes. Now recall the heterodox version of Goldman's account:

*Person S has sufficient evidence for p at t if and only if there is a reliable belief-forming operation available to S which is such that if S applied that operation to his total cognitive state at t, S would believe p at t-plus-delta (for a suitably small delta) and that belief would be ex post justified.*

We've just said that, in the case of Toshiro, he does not have sufficient evidence for any of the propositions that he believes about the colors of the pictures before him – at least he doesn't have such evidence when he believes those propositions. So now consider: is there a reliable belief-forming operation available to Toshiro which is such that if Toshiro applied that operation to his total cognitive state at t, then he would have an ex post justified belief at t-plus-delta (for some suitably small delta)? The answer to this question depends upon three things: (a) whether the time delay in Toshiro's belief-formation is smaller or larger than delta, and (b) whether the belief-forming process that I've described in this case – the process of forming beliefs about the colors of pictures in front of one based on one's clear view of those pictures, counts as "available" to Toshiro, and finally (c) whether there are any other reliable belief-forming operations available to Toshiro that would result in his having ex post justified beliefs about the colors of pictures before him.

Now I will make the following assumptions about (a), (b), and (c). First, with regard to (a), I will assume that, however exactly Goldman wishes to specify the value of delta, any value of delta will be at least as long as the time required to alternate from a perceptual experience of one color to a perceptual experience of a different color.

This assumption seems unimpeachable: why think that a proposition can be ex ante justified for an agent only if the agent can form an ex post justified belief in that proposition in a shorter period of time than that?

Second, with regard to (b), I also assume that, however exactly Goldman wishes to specify the notion of availability, any notion of availability liberal enough to count us as having sufficient evidence for the various propositions about our surroundings that we ought to believe (e.g., that I'm typing on a computer screen right now) will also be liberal enough to count the formation of beliefs about the colors of pictures in our immediate environment under normal lighting conditions as an available belief-forming process, and will also allow that such a process can be available even when its execution is much slower than normal (as when we realize only too late what it was we just saw).

Finally, with regard to (c), I assume that there is nothing about the case that I've described that requires Toshiro to have available to him a reliable belief-forming operation that would allow him to have reliable beliefs about the colors of the images before him at the moment that he has those beliefs. In other words, Toshiro has no evidence that bears on the truth of his thoughts of the form "that one is purple", "that one is brown", etc., other than the perceptual and memorial evidence I've described. I can think of no grounds for thinking that this assumption cannot be true.

Under the assumptions that I've made above, the case of Toshiro is one in which Toshiro has, at each moment, sufficient evidence for a proposition (about the color of an image currently presented to him) that he does not believe, but does not have available to him a way to reliably form ex post justified beliefs in that same proposition. It is also a case in which, at each moment, Toshiro has available to him a way to reliably form ex post justified beliefs in other propositions (about the colors of images previously presented), but does not have sufficient evidence for those propositions. Either way, it is a case in which an agent satisfies one side of Goldman's heterodox account, but not the other side. The case is, in other words, an intuitive counterexample to Goldman's heterodox account. So either the heterodox account must go, or else our reliance on intuitions must go. The Goldmanian cannot have it both ways.

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