Belief, Judgment, and Rational Explanation*

Nicholas Koziolék†

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It is as well to reserve ‘belief’ for the notion of a far more sophisticated cognitive state: one that is connected with (and, in my opinion, defined in terms of) the notion of judgment, and so, also, connected with the notion of reasons.

Gareth Evans, The Varieties of Reference

I Introduction

1. Suppose I tell you that Plato believes that Socrates is wise. “Why does he believe that?” you ask me. “Well,” I reply, “because he believes both that Socrates is a philosopher and that all philosophers are wise.” If what I have said is true, it provides an explanation of the fact that Plato believes that Socrates is wise—namely:

   (1) Plato believes that Socrates is wise because he believes both that Socrates is a philosopher and that all philosophers are wise.

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†Email: nkoziolék@gmail.com || Website: nkoziolék.net
Understood in a certain way—the natural way, I think—explanation expresses what I will call a rational explanation of Plato’s belief that Socrates is wise. Put roughly, a rational explanation of a belief is one that explains the belief by revealing the rationality of holding it. Of course, some beliefs are not rationally held. So not all beliefs can be explained in this way. But some of them can. Indeed, it is essential to belief—it is part of the very nature of belief—that some beliefs can be rationally explained. In other words, it is essential to belief that rational explanations of belief are good explanations. Or so I will argue.

2. My aim in this essay is to carve out a path between two very different approaches to the theory of belief, which I will call Empiricism and Radical Holism. At the core of both views is the assumption that Rationalism entails Closure: if it is essential to belief that rational explanations of belief are good explanations (Rationalism), then belief is to some extent closed under some kind of consequence (Closure).\(^1\) The Radical Holist accepts Rationalism and so accepts Closure.\(^2\) The Empiricist, by contrast, rejects Closure and so rejects Rationalism. My aim is to show that we should instead reject their shared assumption. What we need is a theory of belief that will allow us to reject Closure, but without abandoning Rationalism—that is, without abandoning the view that it is essential to belief that rational explanations of belief are good explanations.

3. It is the task of §§II–VI to show that we should reject the assumption shared by the Empiricist and the Radical Holist. It is the task of the remainder of the essay to develop, in outline, a theory of belief that meets both of the resulting desiderata. Thus, the theory of belief proposed in §§VII and VIII is compatible with the

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\(^1\)What Closure says, more fully, is that, if you believe both that \(q\) and that \(r\), and \(\langle p \rangle\) is a consequence (of the relevant kind) of \(\langle q \rangle\) and \(\langle r \rangle\)—and, perhaps, some other conditions are met—then you believe that \(p\).

\(^2\)The label ‘Radical Holism’ is meant to acknowledge the possibility of a Holism that rejects Closure. Cf. §V
4. To help simplify the argument, I will formulate it exclusively in terms of a particular kind of rational explanation of belief, namely, that of a belief formed via a deductively valid inference. The generalization of the argument—which applies to rational explanations of belief quite generally, including both those of beliefs formed via non-deductive inferences and those formed via perception, testimony, and so on—is actually, in my view, more fundamental than the restricted argument developed here. But it raises issues that can’t be treated adequately in the space of a single essay. So the present essay functions both to motivate the more general account and to introduce some of the central ideas in terms of which it functions. In a sense, then, the present essay is a mere propaedeutic to the more general theory of belief (and, ultimately, of thought) of which it is a part. There will thus be important lacunae in what I say here. It is the ambition of my larger project to show that those can all be filled. Here, however, I will merely provide occasional hints as to how the longer story is meant to go.3

5. The restricted form of the argument—the argument I’ll be giving here—rests on two crucial claims. The first, which amounts to a restricted form of Rationalism, is that the explanatory force of a rational explanation of the form \( \langle S \text{ believes that } p \text{ because she believes both that } q \text{ and that } r \rangle \) lies, in part, in the validity of the inference \( \langle q; r; \text{ therefore, } p \rangle \). The second, which amounts to a denial of Closure, is that it is possible to believe the premises of even the simplest deductively valid inference without believing the conclusion. My aim in the next three sections is to motivate each of these claims in turn (the first in §II, the second in §IV).4

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3For some relevant work on the nature of inference, see Koziolek MS(b).
4The generalization of the argument to the case of non-deductive inferences will rest on fairly straightforward generalizations of these two claims: first, that the
II Validity and explanatory force

6. The first claim, again, is that the explanatory force of a rational explanation of the form \( S \) believes that \( p \) because she believes both that \( q \) and that \( r \) lies, in part, in the validity of the inference \( (q; r; \text{therefore, } p) \). The plausibility of this claim can be brought out by contrasting explanation (1) (understood as a rational explanation) with the superficially similar—but not rational—explanation:

\[
(2) \text{Emily believes that Nathan studied because she believes both that Nathan passed and that students who study always pass.}
\]

My claim is, first, that explanation (2) is incomplete or elliptical in a sense in which explanation (1) is not;\(^5\) and, second, that that is because the inference \( (\text{Nathan passed; students who study always pass; therefore, Nathan studied}) \) is invalid, while the inference \( (\text{Socrates is a philosopher; all philosophers are wise; therefore, Socrates is wise}) \) is valid.\(^6\)

7. Explanation (2) is incomplete or elliptical in the sense that, even if you know both (i) what it is for someone to believe something (on the basis of something else she also believes) and (ii) how the thoughts that Nathan passed, that students who studied always pass, and that Nathan studied are logically related to one another,

explanatory force of a rational explanation of the form \( (S \) believes that \( p \) because she believes both that \( q \) and that \( r \) \) lies, in part, in the goodness of the inference \( (q; r; \text{therefore, } p) \) (where, on my view, such goodness is ultimately to be explained in terms of knowledge); and, second, that it is possible to believe the premises of any good inference without believing the conclusion. The generalization to other cases (for example, perception) involves further adjustments, but nothing essentially new.

\(^5\)This way of putting the point is meant to leave open the possibility that explanation (1) is incomplete or elliptical in some other sense—as, I think, it is.

\(^6\)More accurately: explanation (2) is incomplete or elliptical because the inference \( (\text{Nathan passed; students who study always pass; therefore, Nathan studied}) \) isn’t a good one (in the sense that knowing the premises doesn’t put you in a position to know the conclusion). In other words, although what I say in the text strictly implies that there are no rational explanations of beliefs formed via good non-deductive inferences, the generalization of my argument will cancel that implication.
you might still fail to understand the explanation. In other words, you might still reasonably wonder why Emily believes that Nathan studied. Explanation [1] by contrast, is not incomplete or elliptical in this sense. If you know both (i) what it is for someone to believe something (on the basis of something else she also believes) and (ii) how the thoughts that Socrates is a philosopher, that all philosophers are wise, and that Socrates is wise are logically related to one another, you cannot fail to understand the explanation.

8. What this suggests is that, if you know that Plato believes both that Socrates is a philosopher and that all philosophers are wise, and if you know what it is for someone to believe something (on the basis of something else she also believes), and if you know that the inference \( \langle Socrates is a philosopher; all philosophers are wise; therefore, Socrates is wise \rangle \) is valid, then you have everything you need to explain the fact that Plato believes that Socrates is wise. Thus, the explanatory force of explanation [1] (understood as a rational explanation) lies, in part, in the validity of the inference \( \langle Socrates is a philosopher; all philosophers are wise; therefore, Socrates is wise \rangle \). And, more generally, the explanatory force of a rational explanation of the form \( \langle S believes that p because she believes both that q and that r \rangle \) lies, in part, in the validity of the inference \( \langle q; r; therefore, p \rangle \). And so it is plausible that Rationalism (at least in its current, restricted form) is true.

III Super-Radical Holism

9. The argument of §II might be taken to suggest a certain, very precise, account of the nature of rational explanations of beliefs formed via deductively valid inferences. For that argument might seem to have the following consequence: if you believe both that \( q \) and that \( r \), and the inference \( \langle q; r; therefore, p \rangle \) is valid, then you believe that \( p \). Given the view of belief that is captured in this conditional, we can see very clearly why explanation [1] would be
complete in a sense in which explanation (2) is not: Plato’s premise-beliefs satisfy the antecedent of this conditional, and so guarantee that he believes that Socrates is wise, while Emily’s premise-beliefs do not satisfy the antecedent of the conditional, and so do not guarantee that Emily believes that Nathan studied—they leave open the possibility that she has no such belief. Simply put: if the conditional claim in question were true, we would have a workable account of rational explanations of beliefs formed via deductively valid inferences. And that might make it tempting to accept the conditional claim, and so to assume that, if someone believes both that \( q \) and that \( r \), and the inference \( \langle q; r; \text{therefore}, p \rangle \) is valid, then she believes that \( p \). The result is a version of the view I have called \textit{Radical Holism}. In fact, as we will see in §V, it is a particularly strong version of that view, one that involves a particularly strong version of Closure. So let’s call it \textit{Super-Radical Holism}.

### IV  Failing to draw inferences

10. The problem with Super-Radical Holism is that thinkers do not always believe everything that could validly be inferred from their beliefs. For example, Plato might believe both that Socrates is a philosopher and that all philosophers are wise \textit{without} believing that Socrates is wise. For he might, as we sometimes say, never have put his two beliefs together.

11. A more detailed example might help. Suppose that, on Monday, I schedule an appointment to meet with a colleague—let’s call him Eric—on Friday afternoon. I thereby come to believe that I need to meet with Eric on Friday afternoon. Come Friday morning, I wake up, have some coffee, check my email, and so on, knowing full well that it’s Friday. But it isn’t until lunchtime that I think to myself: \textit{Didn’t I need to do something today?} \textit{Oh, that’s right: I made that appointment to meet with Eric—I need to meet with Eric today.} Here, I think, we ought to say that, all morning, I believed
both that I needed to meet with Eric on Friday and that it was
Friday. But it wasn’t until lunchtime that I finally put these two
pieces of information together and came to believe that I needed
to meet with Eric today. In other words, it wasn’t until lunchtime
that I finally inferred: (I need to meet with Eric on Friday; today is
Friday; therefore, I need to meet with Eric today). This kind of thing
happens all the time. And, generalized, it represents an important
fact about the nature of belief.

12. This fact about belief can be stated as a condition on any ade-
quate account of belief. Call it the Ignorance Condition:

the Ignorance Condition: It is possible for a subject to believe
both that \( q \) and that \( r \), but not believe that \( p \), even when the
inference \( \langle q; r; therefore, p \rangle \) is valid.

My ultimate aim here is to show that it is possible to provide a theory
of belief that respects the Ignorance Condition (and so rejects Clo-
sure), and that does so without rejecting the view that it is essential
to belief that rational explanations of belief are good explanations—
 hence without rejecting Rationalism. But before I introduce a theory
that can do that, I need to say more to motivate it. For there are, as I
have said, two familiar alternatives: Radical Holism and Empiricism.
And the Radical Holist will object, at this point, that what I have
called Super-Radical Holism doesn’t represent the only way—or,
indeed, the best way—of rejecting the Ignorance Condition; while
the Empiricist will reply that the only way of respecting the Igno-
rance Condition is to reject Rationalism. In the next two sections,
then, I explain these two views, and argue that both of them should
be rejected. That argument will thus motivate the search for an
alternative theory of belief: a Rationalism without Closure—or, in
effect, an empirically realistic Rationalism.
V Against Radical Holism

13. The present problem, again, is that there’s an obvious conflict between the Ignorance Condition and the Super-Radical Holist theory of belief. One possible solution to this problem is to reject the Ignorance Condition. To reject the Ignorance Condition is to accept some form of Closure, the view that belief is to some extent closed under some kind of consequence. My aim in this section, then, is to show that we have no good reason to accept Closure, and that we should therefore accept the Ignorance Condition.

14. I thus want to focus, not on Super-Radical Holism, but on a weaker, and so more plausible, form of Radical Holism, which I will simply call Radical Holism, and treat as representative of what is in principle a whole family of possible views:

   **Radical Holism**: If someone believes both that \( q \) and that \( r \), and the inference \( \langle q; r; \text{therefore}, p \rangle \) is both valid and suitably simple or obvious, then she believes that \( p \).

Radical Holism, so understood, is much more plausible than Super-Radical Holism, because it doesn’t imply that everyone believes all of the logical consequences of their beliefs, but instead implies only that everyone believes all of the very simple or obvious logical consequences of their beliefs. It is, however, still incompatible with the Ignorance Condition. So, if it’s defensible, the Ignorance Condition will need to be rejected.

15. So why might someone accept Radical Holism? Well, suppose that, prior to reading this paper, you believed that there were no animals on Mars. Did you also believe that there were no giraffes on Mars? According to the Ignorance Condition, it’s possible you didn’t. You did believe, let’s suppose, both that there were no animals on Mars and that giraffes are animals. And these beliefs together entail that there are no giraffes on Mars. But, according to the Ignorance Condition, you might have failed to put these two beliefs together.
And so you might have failed to believe that there were no giraffes on Mars. One thing that supports Radical Holism, then, is the fact that this consequence of the Ignorance Condition flies in the face of our ordinary practices of belief-ascription. If, before you read this paper, I had asked a good friend of yours (or, for that matter, just about anyone) whether you believed that there were no giraffes on Mars, she would almost certainly have assured me that you did. And that seems like the right thing for her to do—at least, or especially, on the assumption that she knows that you believe both that there are no animals on Mars and that giraffes are animals. So if our ordinary practices of belief-ascription are any indication, something like Radical Holism is plausibly true, and the Ignorance Condition needs to be rejected.\(^7\)

16. It seems to me, however, that the evidence provided by our ordinary practices of belief-ascription is exceedingly weak. In particular, I think that those practices can be explained by a form of Holism that is significantly weaker than Radical Holism. And, crucially, this weak form of Holism doesn’t involve the acceptance of any form of Closure, even the relatively weak form that characterizes Radical Holism (as opposed to Super-Radical Holism).

17. Roughly put, Holism (about belief) is the view that you can’t have any single belief without having a whole bunch of other beliefs. Importantly, however, Holism, so understood, doesn’t imply any form of Closure. That is, it’s one thing to say that you can’t have any single belief without having some other beliefs (even some of a particular range of other beliefs), and it’s another to say that you can’t have any single belief without having some particular other beliefs.\(^8\) But only the latter view implies any form of Closure.

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7I’m grateful to an audience at the University of Chicago for helpful discussion of this issue. The argument of this paragraph is, in effect, an attempt to reconstruct an objection posed, on that occasion, by David Finkelstein.

8More carefully: Holism says that, for every thought \(\langle p \rangle\), there is some (perhaps infinite) set of distinct thoughts \(\langle q_1, q_2, \ldots \rangle\) such that, if you believe that \(p\), then
18. Thus, according to Holism, if you believe that there’s a cat on the mat, then you must have some beliefs about cats. But you don’t need to have any particular belief about cats. For example, you don’t need to believe that cats are animals. You might instead believe that, while everyone else in the world mistakenly believes that cats are animals, cats are actually carefully disguised robot spies sent to earth by a highly sophisticated alien species worried about the threat posed to their existence by the remarkable belligerence of human beings. Of course, there will need to be some overlap between your beliefs about cats and those of your fellow human beings. So you’ll believe that cats have fur (or, at least, something practically indistinguishable from it), that they kill songbirds, that so-and-so has three of them, and so on. Nonetheless, if you take any particular belief about cats, it will be possible for there to be someone who has beliefs about cats, but nonetheless lacks that particular belief.

19. According to Radical Holism, by contrast, if you believe that there’s a cat on the mat, then you must have some particular beliefs about cats. You might, for example, need to believe that cats are animals. What the considerations of the last paragraph suggest is that Radical Holism is not terribly plausible (our ordinary practices of belief-ascription aside, anyway). But it may be that philosophers drawn to Holism (for good reasons) unwittingly accept Radical Holism because they mistakenly conflate these two distinct views.

20. Or—perhaps more charitably—it may be that philosophers drawn to Radical Holist views are drawn to them because they are moved by the evidence provided by our ordinary practices of belief-ascription, as described above. But, as I’ve said, I don’t think that we need to appeal to Radical Holism to explain those practices. Appeal to mere Holism will suffice.

you believe some (or most, etc.) but not necessarily all of \( \langle q_1 \rangle, \langle q_2 \rangle, \ldots \). Radical Holism, by contrast, says that, for every thought \( \langle p \rangle \), there is some (perhaps infinite) set of distinct thoughts \( \{ \langle q_1 \rangle, \langle q_2 \rangle, \ldots \} \) such that, if you believe that \( p \), then you believe all of \( \langle q_1 \rangle, \langle q_2 \rangle, \ldots \).
21. To see how, consider the following. If you know that someone believes that there’s a cat on the mat, you’ll generally assume that she believes not only that cats are animals, that they have fur, and so on, but also that there’s an animal on the mat, that there’s a mammal on the mat, and so on. What exactly you assume will of course depend on other facts about the person in question. If the person is a child, you might assume that she believes that there’s an animal on the mat—since she knows that cats are animals—but not that she believes that there’s a mammal on the mat—since she doesn’t yet know that cats are mammals, or even what a mammal is. In any case, you’ll assume that the person has a significant body of relevant beliefs. And this makes sense. For suppose you made no such assumptions. That is, suppose that you never assumed that someone believed something unless you had specific positive evidence that they believed it. If you ascribed beliefs in that way, you would ascribe very few beliefs to other people, and you would have very little to go on in predicting others’ behavior, attempting to communicate with them, and so on. In fact, you would have so little to go on that it is unlikely that you could do any of these things.

22. The truth of even mere Holism, however, guarantees that overgenerating hypotheses is the better strategy for coming to a correct understanding of others’ beliefs. For it guarantees that the person will have some significant number of other relevant beliefs, many of which will be perfectly predictable, at least on the assumption that the person has had a reasonably normal life. Thus, the assumption that someone who believes that there’s a cat on the mat also believes that there’s an animal on the mat is a pretty safe assumption, given that most people will know that cats are animals, and so will either already believe that there’s an animal on the mat or, if they don’t, will immediately come to believe it (infer it from their knowledge that there’s a cat on the mat and that cats are animals) should it become relevant (for example, should you ask them)—which amounts to just about the same thing, at least for practical purposes. Of course, you could always be wrong. But the truth Holism guarantees
that, on the whole, you’ll get more right by risking overgeneralization than you would if you restricted your assumptions to those supported by positive evidence in favor of specific beliefs.

23. The result is that our ordinary practices of belief-ascription provide little if any evidence for Radical Holism. Since there are other reasons to reject Radical Holism, and since the weaker form of Holism identified above can explain our ordinary practices of belief-ascription, we thus have good reason to accept Holism but reject Radical Holism.

24. There is one final, broadly Holistic, reason for thinking that the Ignorance Condition ought to be rejected. This is the view, mentioned in §1 that Rationalism entails Holism—in other words, that, if it is essential to belief that rational explanations of belief are good explanations, then the Ignorance Condition is false. Put somewhat differently, the general idea here is that, if it is essential to belief that rational explanations of belief are good explanations, then any belief you have will be rationally related to other beliefs you have. That is, any belief you have will both support and be supported by other beliefs you also have. A body of belief, on this view, is a complex, self-supporting structure—something akin to a house of cards (though presumably less precarious). And this picture of belief can, I think, at least suggest that some form of Closure (and thus some form of Radical Holism) must be true—even if we haven't yet managed to identify the exact form of Closure that is true. And so it can also suggest that the Ignorance Condition must be rejected—even if, again, we can’t yet see precisely how to reject it.

25. I think that this appearance, such as it is, is misleading. But those attracted to Radical Holism might be forgiven for taking it seriously, so long as there is no other way of defending Rationalism. For the only obvious alternative to Radical Holism is Empiricism, and Empiricism implies that it is a merely accidental feature of
belief that rational explanations are good explanations—which, as we’ll see, arguably amounts to the view that beliefs simply can’t be rationally explained, i.e., that the concept of a rational explanation of belief is empty. So it seems that we have only two options: either abandon Rationalism, or accept some form of Closure and so reject the Ignorance Condition.

26. But before I introduce a third option, we need to see why it is that Empiricism, too, is a bad solution to the present difficulty.

VI Against Empiricism

27. I argued in §II that—as I’ve been putting it—it is essential to belief that rational explanations are good explanations. I argued, in other words, that Rationalism is true. What I take this to mean, though, is simply that a correct theory of belief will need to entail Rationalism. Radical Holism, as we have seen, is a theory of belief that would do this. But Radical Holism is incompatible with the Ignorance Condition, which, I have argued, is true. So we should reject Radical Holism. But if we accept the Radical Holist’s claim that Radical Holism follows from Rationalism, our only alternative will be to reject Rationalism. The result is Empiricism, the view that it is accidental to belief that rational explanations of belief are good explanations—or, again, that a correct theory of belief need not (indeed, will not) entail that rational explanations of belief are good explanations.

28. Importantly, Empiricism is, in one sense, compatible with the claim that rational explanations of belief are good explanations. For it holds only that a correct theory of belief will not entail that these explanations are good ones. So an Empiricist who thinks that rational explanations of belief are good explanations will simply think that their goodness is to be explained by appeal to facts that lie outside the theory of belief. As I hinted above, however, there is
another sense in which Empiricism is incompatible with the claim that rational explanations of belief are good explanations. For it will turn out that, on the Empiricist view, it is merely incidental to the relevant explanations of belief that they reveal the rationality of holding the explained beliefs. And so, in an obvious sense, those explanations won’t explain their target beliefs by revealing the rationality of holding them. For purposes of the present argument, however, I won’t take this point to count against the Empiricist; to do so would be to beg the crucial question. Instead, I will argue, against the Empiricist, that it is essential to belief that beliefs can sometimes be rationally explained. That, finally, will set up the central challenge of this paper: to provide a theory of belief that both entails that rational explanations of belief are good explanations and respects the Ignorance Condition.

29. Thus, while the Radical Holist rejects the second claim on which my argument rests—i.e., that it is possible to believe the premises of even the simplest deductively valid argument without believing the conclusion (see §IV)—Empiricism rejects the first: it rejects the claim that the explanatory force of a rational explanation lies, in part, in the validity of the inference $\langle q; r; \therefore p \rangle$ (see §II). In particular, while I argued in §II that explanation (2):

\[
(2) \text{Emily believes that Nathan studied because she believes both that Nathan passed and that students who study always pass}
\]

is incomplete or elliptical in a sense in which explanation (1):

\[
(1) \text{Plato believes that Socrates is wise because he believes both that Socrates is a philosopher and that all philosophers are wise}
\]

is not, the Empiricist holds that, on the contrary, these two explanations should be understood as functioning in exactly the same way. In particular, the Empiricist holds that, just as explanation (2) requires supplementation by additional psychological facts about Emily (for example, that she is prone to affirming the consequent),
so explanation (1) requires supplementation by additional psychological facts about Plato.

30. An Empiricist, then, might claim that, if explanation (1) seems like a better or more complete explanation than explanation (2) that is only because we (i.e., we consumers of the explanations) are in the habit of assuming (correctly, of course) that—as a matter of empirical fact—human beings tend to believe things that obviously follow from their beliefs. Thus, if all we have in view is a correct account of belief, and nothing else, explanation (1) will be no better than explanation (2). In order to see either of these explanations as a good explanation, we need to look outside the theory of belief. In particular, we need to look to the patterns of belief exhibited by actual believers. And the idea is that, having done that, and having learned that (say) human beings tend to believe things that obviously follow from their beliefs, we can affirm the goodness of explanations like (1).

31. It follows that, according to the Empiricist, the only thing that's special about rational explanations of belief is that they happen to appeal to the fact that the inference from the contents of the explaining beliefs to the content of the explained belief is valid. This feature of these explanations, however, doesn't contribute to their explanatory force. For these explanations have the following general form: “So-and-so has such-and-such beliefs; as it happens, human beings with such-and-such beliefs tend also to believe that $p$; so so-and-so (probably) believes that $p$.” And the goodness of this general form of explanation doesn't depend at all on the intrinsic nature of the pattern of belief described in the second

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9 This sort of view is defended explicitly by Wayne Davis (2005), though I don’t think he’s the only one who holds it. (His focus is on explanations of action, rather than belief, but his argument obviously generalizes.)

10 I assume here that it isn’t a problem that explanations of this form are defeasible in character (as the qualifier ‘probably’ is meant to indicate). In fact, one upshot of the Ignorance Condition is that rational explanations of belief are always defeasible.
premise. Instead, it depends only on the fact that the pattern is one in accordance with which human beings happen to tend to believe. (And if human beings also tend to believe in accordance with that pattern because that pattern has certain properties that they tend to believe to be desirable for their bodies of belief to have, that will be just another fact about human beings. In other words, that fact, too, will be external to the theory of belief.)

32. The problem with Empiricism is, quite simply, that it just isn’t plausible that it’s a mere empirical fact about human beings that we tend to believe things that obviously follow from our beliefs. In other words, it isn’t plausible that a correct theory of belief will entail nothing about the general shape that a body of belief can take. To take two particularly extreme examples: it isn’t plausible that there could be a believer who believes the negation of everything she believes, and it isn’t plausible that there could be a believer who believes none of the obvious consequences of her beliefs (i.e., a believer all of whose beliefs are logically isolated from one another). This is, ultimately, just a reaffirmation of Holism about belief. But that’s just to say that it’s worth stressing what Holism entails: namely, that it’s part of the very nature of belief that you can’t have a single belief without having a whole bunch of other beliefs with which it coheres. And this puts certain constraints on our theory of belief. In particular, I have argued, that theory will need to entail that rational explanations of belief are good explanations.

33. The most plausible objections to this line of argument—in effect, the most plausible objections to Rationalism—seem to me to rest on an equivocation on the word ‘belief’. For example, Eric Mandelbaum (2013, 2014, 2016) has defended a theory of (what he calls) “belief” on which, I think, it would be possible for someone to “believe” the negation of everything she “believes,” and on which it would be possible for someone to “believe” none of the things that obviously follow from her “beliefs.” And the same is undoubtedly true of many other philosophers, especially those (like Mandelbaum)
who work at the intersection of cognitive science and the philosophy of mind. But these theories—interesting and important as they may be—are not theories of what I call belief. So my points in this section aren’t meant to apply to everything philosophers have ever called “belief.” They’re meant to apply only to the thing I’m theorizing—which might come into view for particular readers only after they’ve worked through and reflected on the theory proposed in §§VII and VIII below.

34. This isn’t to say that nothing speaks in favor of Empiricism. In fact, part of what I’ve been arguing here is that if the only alternative to Empiricism is Radical Holism, then there’s a reasonably good argument for Empiricism: “Either Empiricism is true or Radical Holism is true; Radical Holism is false, because it entails the falsity of the Ignorance Condition, which is true; so Empiricism is true.” Of course, there’s also a similar argument for Radical Holism: “Either Empiricism is true or Radical Holism is true; Empiricism is false, because Holism is true, and Empiricism is incompatible with (even the weakest form of) Holism; so Radical Holism is true.” But, if there are really no other alternatives, we’ll need to bite one of two bullets: either reject the Ignorance Condition, despite its plausibility; or reject Holism, despite its plausibility. And it may be that the arguments for the Ignorance Condition are stronger than the arguments for Holism, in which case Empiricism is the better option. But, again, I don’t think we have to make that choice.

VII  Belief as a Power

35. So the challenge, as I understand it, is this: We need a theory of belief that entails both (i) that rational explanations of belief are good explanations and (ii) that it’s possible to believe the premises of even the simplest deductively valid inference without believing the conclusion. I’ll begin with (ii).
36. We can make progress here by noting that dispositional theories of belief are exceptionally well-placed to respect the Ignorance Condition, for the simple reason that something can be disposed to $\phi$ without actually $\phi$ing, i.e., without manifesting that disposition. An intact but fragile vase, for example, has the disposition to break, but has not actually broken, and perhaps never will. Thus, if to believe the premises of a valid inference is to be disposed (perhaps inter alia) to believe the conclusion, then we can explain the possibility of believing the premises without believing the conclusion simply by noting that it’s possible for someone to be disposed to believe the conclusion, but for that disposition to remain unmanifested.

37. So consider again the example I gave in §IV. In that example, there’s a period of time in which I believe the premises, but not the conclusion, of the inference $\langle$ I need to meet with Eric on Friday; today is Friday; so I need to meet with Eric today $\rangle$. On a dispositional theory of belief, we can say that, during that time, I am disposed to believe that I need to meet with Eric today, but, because that disposition remains unmanifested, I don’t yet actually believe that I do. But when, around noon, I think to myself Didn’t I need to do something today?, that thought triggers the disposition, which manifests itself in the belief that I need to meet with Eric today.

38. The trouble with this account, as given so far, is that it doesn’t yet seem to amount to a theory of belief. That is, the idea just introduced—that to believe the premises of a valid inference is to be disposed to believe the conclusion—is compatible with many different theories of belief. What we really need, then, is something more, namely, a particular theory of belief that entails that to believe the premises of a valid inference is to be disposed to believe the conclusion—and that also entails that rational explanations of belief are good explanations.

39. We can make additional progress, however, by noting that, if to believe the premises of a valid inference is to be disposed to believe
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the conclusion, then it’s also plausible (although it’s by no means required) that each individual premise-belief is itself a disposition. At first glance, this observation might not seem to take us very far. For it might seem to suggest only that each individual premise-belief is a disposition (inter alia) to believe the conclusion of the inference in question. And that’s really just another way of putting the original idea, though one that focuses on one premise-belief to the exclusion of the other(s).

40. The problem here is that we’ve been working with a conception of dispositions on which—as one philosopher has recently, and pithily, put it—“dispositions are ten a penny” (Bartlett 2017: 11). In other words, we’ve been assuming that dispositions are, in the metaphysicians’ terms, abundant properties. And, on this conception of a disposition, to say that some state is a disposition to do something is to say nothing at all about its nature. To characterize a state as a disposition is, on this conception, to characterize it only extrinsically, namely, (to put it roughly) as a state that can be expected to bring about certain events.

41. There is, however, good reason to distinguish dispositions (so understood) from what are sometimes called powers. Powers, unlike dispositions, aren’t cheap; in the metaphysicians’ terms, they’re sparse, rather than abundant, properties. And, crucially, to characterize a state as a power is to say something about its nature. For

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11 For some discussion of the distinction between sparse and abundant properties, see Schaffer 2004. I would tie the notion of a sparse property less closely to scientific explanation than Schaffer does—in particular, I would argue that being a kazoo (Shaffer’s example) ought to count as a sparse property, because it serves as the ontological basis of the truth of “non-scientific” claims about kazoos—but, otherwise, his conclusions are in line with the view I take propose in the text.

12 If the power is grounded in lower-level properties (which may or may not themselves be powers), the characterization of it as the power to φ will not say everything there is to say about its nature (at least in one sense of ‘nature’, the one relevant to natural science). But it still says something very important about—indeed, something essential to—its nature.
example, fragility is not merely the disposition to break; it is the *power* to break (or, more accurately, to be broken). It is, in other words, an intrinsic property of things like vases.\(^{13}\) Thus, to say that something is fragile is to say more than that the thing can be expected to break. It is to say that the thing has a certain property. True, in virtue of having that property, the thing can be expected to break. But that is not all there is to its having the property.

42. I want to suggest, in these terms, that belief is not a mere disposition, but a *power*. So, in the present case, the idea is to conceive of the premise-beliefs of a valid inference as powers. Just as dispositions can go unmanifested, so powers can go unactualized. And so it’s possible to believe the premises of a valid inference without believing the conclusion, because the relevant powers can be possessed but unactualized. In particular, it’s possible that these two distinct powers (the premise-beliefs) have never been co-actualized—as is in fact suggested by the common idea that what explains the fact that someone believes the premises but not the conclusion of a valid inference is that, though she believes the premises, she has not yet “put them together.”

43. So suppose we accept the following principle: if you believe that \(p\) because you believe both that \(q\) and that \(r\)—where this is understood as a rational explanation of your belief that \(p\)—then you have co-actualized your beliefs that \(q\) and that \(r\).\(^{14}\) This principle makes co-actualization of the premise-beliefs necessary (but, importantly, not sufficient) for acquiring the conclusion-belief in the relevant way, namely, on the basis of the premises. The result is

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\(^{13}\)There is of course a further question about this property, namely, in virtue of what other—lower-level—properties a thing (for example, a vase) has it. We might say that the characterization of fragility as the power to be broken is a characterization of its *essence*, while the characterization of it as a microstructural property (or disjunction of such properties) of certain kinds of physical objects is a characterization of its (on this conception, contingent) *nature*. But these are issues best left for another occasion.

\(^{14}\)I defend a more general version of this principle in Koziolek MS(a).
that, if you didn’t co-actualize your premise-beliefs, then you don’t believe that \( p \) in the relevant way, namely, because you believe both that \( q \) and that \( r \). So you can believe both that \( q \) and that \( r \) without believing that \( p \)—even if the inference \( \langle q; r; \therefore, p \rangle \) is valid, and even if it’s maximally simple or obvious—because it’s possible that you haven’t co-actualized your beliefs that \( q \) and that \( r \).

44. The view that belief is a power thus provides a substantive characterization of the nature of belief that entails that it’s possible to believe the premises of a valid inference without believing the conclusion. What remains is to show that it can also be developed into a full-fledged theory of belief that entails that rational explanations of belief are good explanations. To do that, we need to answer an important question raised by the claim that belief is a power, namely, *What is belief a power to do?*

45. Before I turn to that question, however, I want to make two additional points about powers, as I understand them. First, powers are to be characterized only in terms their actualizations. Thus, fragility, for example, is the power to break (i.e., to be broken)—full stop. The same is arguably true of dispositions in general, notwithstanding the common assumption (which has its source in the various familiar conditional analyses of disposition-ascriptions) that dispositions are to be characterized in terms of pairs of stimulus conditions and manifestations, as in *To be fragile is to be disposed to break (manifestation) if struck (stimulus)*. This is not to say that

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15 That is, you don’t believe-that-\( p \)-because-you-believe-both-that-\( q \)-and-that-\( r \). So you might believe that \( p \)—but, if you do, you’ll believe it on grounds other than your beliefs that \( q \) and that \( r \). For simplicity, I will ignore this complication in what follows. But it’s crucial to remember that there’s a difference between (i) believing something and (ii) believing something on certain specific grounds. For it’s only the latter that’s at issue here.

16 This view of powers has been defended by both Lowe 2011 and Vetter 2015. Vetter, at least, also defends the view that dispositions generally (and, indeed, the whole, even more general, class of what she calls *potentialities*) are to be characterized in terms of their manifestations alone.
powers spontaneously actualize themselves; so this view of powers is compatible with the view that powers actualize (or are actualized) only in the presence of appropriate stimuli. The point is only that it doesn’t belong to the nature or essence of the power itself that it is stimulated by certain things and not others. Which things stimulate a power to actualization is, instead, a matter of contingent fact.

46. Second, powers are (in terms that descend from Ryle 1949) single-track. That is, each power has just one actualization.\(^{17}\) Thus, fragility, again, is the power to break (i.e., to be broken)—full stop. This point is important, because it’s commonly assumed that, if belief is a power or disposition, it must be one with multiple actualizations or manifestations. Thus, Eric Schwitzgebel (2002, 2013) holds that a belief is a complex of behavioral, cognitive, and phenomenal dispositions, and so has no single characteristic manifestation or actualization. Much of what Schwitzgebel has to say about belief, however, is compatible with the view that belief is a power with a single actualization. For we can distinguish between (i) a power, (ii) its actualization, and (iii) the manifest consequences of its actualization.\(^ {18}\) And then we can say that, while there is just one (definitive) actualization of a power, there will, in different circumstances, be a great variety of manifest consequences of that actualization. In particular, the behavioral, cognitive, and phenomenal events that Schwitzgebel discusses will turn out to be causal consequences of the actualization of a belief. Thus, for example, if the fact that you believe that it’s going to rain sometimes leads you to carry an umbrella, that needn’t be because carrying an umbrella is one of many possible actualizations of your belief that it’s going to rain; it may, instead, be one of many possible causal consequences of the single definitive actualization of that belief.

\(^{17}\) For a defense of this view of powers, see, e.g., Lowe 2010: 11–12 and Molnar 2003: 198–199.

\(^ {18}\) For discussion and defense of the distinction between the actualization of a power and the manifest consequences of its actualization, see Cartwright 2009 and Corry 2009. Corry mentions that a similar three-fold distinction is also defended by Molnar 2003.
47. The result, then, is that we are looking for a definition of belief that has the following form: \textit{to believe that} \( p \) \textit{is to} \( \phi \). Our only remaining question is thus, again, \textit{What is belief a power to do?}

VIII Belief as the Power to Judge

48. My suggestion—which will, however, require a significant amount of explanation—is that the actualization of a belief is (what I will call) a \textit{judgment}. More precisely:

\textbf{Definition of belief:} The belief that \( p \) is the power to judge that \( p \).

As it stands, this definition is not yet substantive. So far, all I have said about judgment is that it is the actualization of a belief. In other words, all I have said is that I propose to use the phrase ‘the judgment that \( p \)’ interchangeably with the phrase ‘the actualization of the belief that \( p \)’. In particular, my claim here is \textit{not} that the belief that \( p \) is the power to perform the act (or, in some cases, action) that other philosophers have called a \textit{judgment}. Instead, I propose to define belief in terms of a notion of judgment that still stands in need of explanation. My aim in this section, then, is provide a partial account of the relevant phenomenon—judgment, or the actualization of belief—so that I can argue that, if we assume certain things about the nature of this act, then the definition of belief as the power to judge will entail that rational explanations of belief are good explanations.

49. Since I have restricted my attention in this essay to beliefs formed via deductively valid inferences, it will suffice, for my purposes here, to define a judgment as a component act—a premise-or conclusion-act—of an act of inferring.\textsuperscript{19} The central idea here is

\textsuperscript{19}The generalization of the argument of this essay requires a more general definition of judgment. At present, I think that the best general definition is this: a (knowledgable) judgment is the passive component (the “conclusion”-component) of
that the following two characterizations of the act of inference are definitionally equivalent:

(3) Inferring is the act of coming to believe something on the basis of something else you already believe.

(4) Inferring is the act of judging something on the basis of something else you also (simultaneously) judge.  

What we have seen, in our discussion of the Ignorance Condition, is that, until the premise-beliefs of an inference are co-actualized, the subject will not believe the conclusion (at least not on the basis of the given premises). What happens when the subject comes to believe the conclusion---i.e., forms the conclusion-belief---is that she co-actualizes her premise-beliefs. But since we are assuming that judgment is the actualization of belief, this is also to say that she co-judges her premises.

This act of coming to know something on the basis of perception. With belief defined as the power to judge, it will then turn out that beliefs can also be actualized in other acts, like inferences. Indeed, it will turn out that they can be actualized as active components (“background” judgments) of perceptual acts. (For some considerations that suggest that judgment needs to be defined in terms of perceptual acts, in particular, see Kern 2017: chapter II.)

These formulae, I should say, are not intended as definitions of the act of inferring. They are, rather, among the statements that will follow from the definitions of the completed theory of thought. And, in fact, they will follow (on my view) from definitions of judgment and belief in terms of inference (or, more precisely, in terms of what I call an epistemic act, rather than the other way around. For some relevant discussion, see Koziolek 2015: chapter 2 and Koziolek MS(b).

More precisely, what happens is that she co-actualizes her premise-beliefs in a particular way. We need to add the latter qualification in order to deal with the fact that, sometimes (indeed, arguably, always), more than one conclusion can validly be inferred from given premises. Thus, if both \( \langle q; r; \text{therefore, } p \rangle \) and \( \langle q; r; \text{therefore, } s \rangle \) are valid, then there are two ways of co-actualizing the beliefs that \( q \) and that \( r \). As far as I can see, these “ways of co-actualizing beliefs” can be explained only in terms of the relevant inferences themselves (from \( \langle q \rangle \) and \( \langle r \rangle \) to \( \langle p \rangle \) and from \( \langle q \rangle \) and \( \langle r \rangle \) to \( \langle s \rangle \), respectively). But this “inference-first” approach to belief and judgment was already implicit in my definition of judgments as components of acts of inferring.
50. Given these definitions, it follows that rational explanations of beliefs formed via deductively valid inferences are good explanations. Why? Well, suppose you’re told that

Plato believes that Socrates is wise because he believes both that Socrates is a philosopher and that all philosophers are wise.

This explanation tells us a number of things. First, according to our definition of belief, Plato has both the power to judge that Socrates is a philosopher and the power to judge that all philosophers are wise. Second, he also has the power to judge that Socrates is wise. And, third, he has the latter power because he has the former powers. The explanation offered, then, is an explanation by appeal to the possession of powers. So it’s an explanation with the same generic form as, say, The vase broke because it was fragile. And if this sort of explanation—an explanation by appeal to the possession of a power—is true, the explanandum must be either the actualization of the power or a manifest consequence of that actualization. In the case of the vase, the explanandum is the vase’s breaking, an event. And that event is the actualization of the relevant power, the fragility of the vase. But if the vase had not shattered, but merely cracked, and now won’t hold water, we might have said that the vase no longer holds water because it is fragile. Here, the actualization of the power was the vase’s cracking, and its present inability to hold water is merely a manifest consequence of that actualization.

51. So, similarly, in the case of Plato: Plato’s belief that Socrates is wise must be either (i) the co-actualization of his beliefs that Socrates is a philosopher and that all philosophers are wise or (ii) a manifest consequence of that actualization. In the context of the present argument, (ii) is the more natural option. The co-actualization of Plato’s beliefs that Socrates is a philosopher and that all philosophers are wise is a component part of his act of inferring ⟨Socrates is a philosopher; all philosophers are wise; therefore, Socrates is wise⟩.
And that act is an act in which Plato’s premise-judgments cause his conclusion-judgment.\textsuperscript{22} Thus, Plato’s judgment that Socrates is wise is a consequence of the co-actualization of his premise-beliefs. But it is also, at the same time, his acquisition of the conclusion-belief, the belief that Socrates is wise. Thus, as said above: he comes to believe his conclusion on the basis of his premises, and he does so \textit{in} judging his conclusion on the basis of his premises, i.e., in inferring his conclusion from his premises.

52. We can then show that rational explanations of beliefs formed via deductively valid inferences are good explanations. The argument is this:

1. Rational explanations of beliefs formed via deductively valid inferences explain beliefs by appeal to other beliefs.

2. A belief is a power to judge.

3. So rational explanations of beliefs formed via deductively valid inferences explain beliefs by appeal to powers.

4. Explanations by appeal to powers are good explanations.

5. So rational explanations of beliefs formed via deductively valid inferences are good explanations.

The explanation hinges, however, on the view that a belief is a power with a certain sort of actualization, one that is \textit{essentially} a potential component of an act of inferring.

53. Thus, recall what I said at the end of §II if you know that Plato believes both that Socrates is a philosopher and that all philosophers are wise, and if you know what it is for someone to believe something, and if you know that the inference \langle Socrates is a philosopher; all philosophers are wise; therefore, Socrates is wise \rangle is valid, then you have everything you need to explain the fact that Plato believes

\footnote{\textsuperscript{22}For defense of this claim, see Koziol MS(b).}
that Socrates is wise. What we have seen, however, is that belief is a power to judge, where a judgment is a component of an act of inferring. So in knowing that Plato believes both that Socrates is a philosopher and that all philosophers are wise, you know that he’s in a position to infer that Socrates is wise. All he needs to do is to co-actualize his premise-beliefs. To say that she believes that Socrates is wise because she believes both that Socrates is a philosopher and that all philosophers is, however, to say that she has co-actualized her premise-beliefs. But this just parallels other explanations by appeal to powers: to say that the vase is broken because it was fragile, for example, is to say that its fragility has been actualized: it is broken because it broke. In both cases, there is of course a further question: What broke the vase? What triggered the co-actualization of the premise-beliefs? Those are good questions, which do require answers. But the answers do not belong to the nature of fragility or belief. And knowledge of them is not required for an understanding of the relevant explanation.

IX Conclusion

54. The theory of belief sketched over the last two sections has both of two highly desirable properties. First, the theory is compatible with the Ignorance Condition, i.e., with the claim that it is possible to believe the premises of even the simplest deductively valid inference without believing the conclusion. Second, the theory entails that rational explanations of beliefs formed via deductively valid inferences are good explanations. As a result, the view is more attractive than either of its two most prominent competitors. For its possession of the first property makes it more appealing than Radical Holism, which rejects the Ignorance Condition. And its possession of the second makes it more appealing than Empiricism, which treats the goodness of rational explanations of beliefs via

23 And, as I have suggested in footnotes, the argument of the present paper generalizes. So, in fact, it can be shown that the theory entails that all rational explanations of belief are good explanations.
deductively valid inferences as a merely accidental feature of belief. Moreover, by treating belief as essentially connected with rationality, but without violating the Ignorance Condition, the theory also points the way towards an appealing but elusive philosophical goal: an empirically realistic rationalism.

References


— MS(a). Coming to believe.
— MS(b). Inferring as a way of knowing.


