# Beliefs, Degrees of Belief, and the Lockean Thesis


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What propositions are rational for one to believe? With what confidence is it rational for one to believe these propositions? Answering the first of these questions requires an epistemology of beliefs, answering the second an epistemology of degrees of belief.

The two accounts would seem to be close cousins. An account of rational degrees of belief simply takes a more fine-grained approach than does an account of rational beliefs. The latter classifies belief-like attitudes into a threefold scheme of believing, disbelieving, and withholding judgment, whereas the former introduces as many distinctions as needed to talk about the levels of confidence one has in various propositions.

Indeed, there is a simple way to think about the relationship between the two. Begin with the assumption that one believes a proposition P just in case one is sufficiently confident of the truth of P. Now add the assumption that it is rational for one's confidence in a proposition to be proportionate to the strength of one's evidence. Together these two assumptions suggest a thesis, namely, it is rational for someone S to believe a proposition P just in case it is rational for S to have a degree of confidence in P that is sufficient for belief.

Call this 'the Lockean thesis,' not so much because John Locke explicitly endorses it—he doesn't—but rather because he hints at the idea that belief-talk is but a general way of classifying an individual's confidence in a proposition. An immediate benefit of the Lockean thesis is that it sidesteps the worry that it is too much to expect anyone to believe very many propositions with exactly the degree of confidence that the evidence warrants. For according to the thesis, S can rationally believe P even if S's specific degree of belief in it is somewhat higher or lower than it should be, given S's evidence.

This is a tidy result, but it does invite the follow-up question, what degree of confidence is sufficient for belief? But even if it proves difficult to identify a precise threshold for belief, this in itself wouldn't seem to constitute a serious objection to the Lockean thesis. It only illustrates what should have been obvious from the start, namely, the vagueness of belief talk. According to the Lockean, belief-talk and degree-of-belief-talk are not fundamentally different. Both categorize one's confidence in the truth of a proposition. Belief-talk does so in a less fine-grained and more vague way, but on the other hand vagueness may be just what is needed, given it is often not possible to specify the precise degree of confidence that someone has in a proposition.

Still, it seems as if we should be able to say something, if only very general, about the threshold above which one's level of confidence in a proposition must rise in order for someone to believe that proposition. What to say is not immediately obvious, however, since there doesn't seem to be a non-arbitrary way of identifying a threshold. But perhaps we don't need a non-arbitrary


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way. Why not just stipulate a threshold? We deal with other kinds of vagueness by stipulation. Why not do the same here?

Indeed, it might not even matter much where the threshold is as long as we are consistent in applying it. There are some restrictions, of course. We won't want to require subjective certainty for belief. So, the threshold shouldn't be that high. On the other extreme, we will want to stipulate that for belief one needs to have more confidence in a proposition than its negation. But except for these two restrictions, we would seem to be pretty much on our own. What matters, at least for the theory of rational belief, is that some threshold be chosen. For once a threshold $x$ is stipulated, we can use the Lockean thesis to say what is required for rational belief: it is rational for S to believe P just in case it is rational for S to have degree of confidence y in P, where $y \geq x$.

Or can we? Although at first glance this seems to be an elegant way to think about the relationship between rational belief and rational degrees of belief, a second glance suggests that it may lead to paradoxes, the most well known of which are the lottery and preface. More precisely, it leads to paradoxes if we make two assumptions about rational belief.

The first is non-contradiction: if it is rational for S to believe P, it cannot be rational for S to believe not-P. *A fortiori* it is impossible for the proposition (P and not-P) to be rational for S.

The second assumption is that rational belief is closed under conjunction: if it is rational for S to believe P and rational for S to believe Q, it is also rational for S to believe their conjunction, (P & Q).

I will be arguing that this second assumption should be rejected, but for now the relevant point is that if both assumptions are granted, the Lockean thesis must be abandoned. The argument is relatively simple.

Suppose that degrees of belief can be measured on a scale from 0 to 1, with 1 representing subjective certainty. Let the threshold $x$ required for belief be any real number less than 1. For example, let $x = 0.99$. Now imagine a lottery with 100 tickets, and suppose that it is rational for you to believe with full confidence that the lottery is fair and as such there will be only one winning ticket. In particular, assume it is rational for you to believe that (either ticket #1 will win or ticket #2 will win . . . or ticket #100 will win). This proposition is logically equivalent to the proposition that it's not the case that (ticket #1 will not win and ticket #2 will not win . . . and ticket #100 will not win). Assume you realize this, and as a result it is rational for you to believe this proposition.

Suppose finally that you have no reason to distinguish among the tickets concerning their chances of winning. So, it is rational for you to have 0.99 confidence that ticket #1 will not win, 0.99 confidence that ticket #2 will not win, and so on for each of the other tickets. Then according to the Lockean thesis, it is rational for you to believe each of these propositions, since it is rational for you to have a degree of confidence in each that is sufficient for belief. But if rational belief is closed under conjunction, it is also rational for you to believe that (ticket #1 will not win and ticket #2 will not win . . . and ticket #100 will not win). However, we have already assumed that it is rational for you to believe the denial of this proposition. But according to the assumption of noncontradiction, it is impossible for contradictory propositions to be rational for you. So, contrary to the initial hypothesis, *x* cannot be 0.99.

A little reflection indicates that comparable arguments can be used to show that *x* cannot be anything other than 1, since the same problem can arise with respect to a lottery of any size whatsoever, no matter how large. However, we have already agreed that *x* need not be 1. Subjective certainty is not required for belief.

To make matters even worse, another argument similar in form, the preface argument, seems equally devastating to the Lockean thesis from the opposite direction. It seems to show that a degree of confidence greater than 0.5 is not necessary for belief.

Here is a version of the preface. You write a book, say, a history book. In it you make many assertions, each of which you can adequately defend. In particular, it is rational for you to have a degree of confidence *x* or greater in each of these propositions, where *x* is sufficient for belief but less than l. (This forces us to bracket for the moment the conclusion of the lottery argument.) Even so, you admit in the preface that you are not so naive as to think that your book contains no mistakes. You understand that any book as ambitious as yours is likely to contain at least a few errors. So, it is highly likely that at least one of the propositions that you assert in the book, you know not which, is false. Indeed, if you were to add appendices with propositions whose truth is independent of those you have defended previously, the chances of there being an error somewhere in your book becomes greater and greater. Thus, it looks as if it can be rational for you to believe the proposition that at least one of the claims in your book, you know not which, is false. This proposition is equivalent to the denial of the conjunction of the assertions in your book, but given conjunctivity and noncontradiction, it cannot be rational for you to believe this proposition. On the contrary, it must be rational for you to believe the conjunction of the claims in your book. This is so despite the fact that it is rational for you to have a low degree of confidence in this conjunction, a degree of confidence significantly less than 0.5.

These two arguments create a pincer movement on the Lockean thesis. The lottery seems to show that no rational degree of confidence less than 1.0 can be sufficient for rational belief, while the preface seems to show that a rational degree of confidence greater than 0.5 is not even necessary for rational belief. Despite being similar in form, the two arguments are able to move against the Lockean thesis from opposite directions because the controlling intuitions in the two cases are different.

The controlling intuition in the lottery case is that it is rational for you to believe that the lottery is fair and that as such exactly one ticket will win. Unfortunately, the only plausible way to satisfy this intuition without violating either the noncontradiction assumption or the conjunctivity assumption is to insist that having 0.99 confidence in a proposition is not sufficient for belief.

On the other hand, the controlling intuition in the preface case is just the opposite. The intuition is that it is rational for you to believe each of the individual propositions in your book. Unfortunately, if we grant this intuition, then given the conjunctivity assumption we must also admit that it is rational for you to believe the conjunction of the propositions you assert in your book, despite the fact that it is rational for you to have less than 0.5 confidence in this conjunction.

Thus, the lottery and the preface might be taken to show that the most serious problem for the Lockean thesis has nothing to do with the vagueness of belief. If that were the only problem, it could be dealt with by stipulating some degree of belief as the threshold. The problem, rather, is that there doesn't seem to be any threshold that can be stipulated without encountering paradox.

This conclusion follows only if we grant the above two assumptions, however. A natural reaction, then, is to wonder whether the problem is caused by one or the other of these assumptions rather than the Lockean thesis. This is precisely what I will be arguing.

But first, consider another kind of diagnosis, one that claims the problems of the lottery and the preface are the result of thinking about the two cases in terms of beliefs *simpliciter* rather than degrees of belief. If we were to abandon the epistemology of belief and were to be content with having only an epistemology of degrees of belief, the issues of the lottery and the preface are avoided. We simply observe that it is rational for you to have a high degree of confidence in the individual propositions—in the lottery, the proposition that ticket #1 will lose, that ticket #2 will lose, and so on; and in the preface, the propositions that constitute the body of the book—but a low degree of confidence in their conjunctions. We then leave the matter at that, without trying to decide whether it is rational to believe *simpliciter* these propositions. We don't attempt to stipulate a threshold of belief. We just cease talking about what it is rational to believe. We abandon the epistemology of belief.

Despite the radical nature of this proposal, it has its appeal, because it does make the problems of the lottery and preface disappear. I will be arguing, however, that we would be losing something important if we were to abandon the theory of rational belief and that we are in no way forced into this desperate position by the above argument, which is grounded on the assumption than an adequate theory of rational belief must contain a conjunction rule.

My tack, in other words, is to stand the above argument on its head. I begin by presuming that the project of formulating an epistemology of belief, at least on the face of it, is a legitimate and important project. The second premise is the same as above: any theory of rational belief must either reject the conjunction rule or face absurd consequences. I conclude that we ought to reject the conjunction rule, which in any event lacks initial plausibility. After all, a conjunction can be no more probable than its individual conjuncts, and often is considerably less probable.

Thus, there is at least a *prima facie* case to be made against the conjunction rule. But to be sure, there are also *prima facie* worries associated with rejecting the rule, the most fundamental of which is that if we are not required on pains of irrationality to believe the conjunction of propositions that we rationally believe, we might seem to lose some of our most powerful argumentative and deliberative tools. In particular, deductive reasoning might seem to lose much of its force, since without a conjunction rule, we might seem to be at liberty to accept the premises of an argument and accept also that the argument is deductively valid and yet nonetheless deny that we are rationally committed to believing the conclusion.

This is a misplaced worry. Some sort of conjunction rule is indeed essential for deductive reasoning, but the relevant rule is not one that governs beliefs but rather such attitudes as presuming, positing, assuming, supposing, and hypothesizing. Each of these is a form of commitment that, unlike belief, is context-relative. You don't believe a proposition relative to certain purposes but not believe it relative to others. You either believe or you don't. But presuming, positing, and assuming are not like this. Having such attitudes toward a proposition is rather a matter of your being prepared to regard the proposition as true for a certain range of purposes or in a certain range of situations. Moreover, relative to these purposes or situations, the attitudes are conjunctive. If for the purposes of a discussion you assume (suppose, posit) P and if for that same discussion you also assume (suppose, posit) Q, you are committed within that context to their conjunction, and committed as well to anything their conjunction implies.

Deductive reasoning is typically carried on in terms of such attitudes rather than beliefs. Since you can deduce R from P and Q even if you don't believe P or Q, the reasoning process here cannot be characterized as one that directly involves beliefs. It is not a matter of your moving from your beliefs in P and Q to a belief in R. The attitudes involved are weaker than beliefs. For purposes of your deliberations, you have assumed or posited P and you have done the same for Q.

Suppose, on the other hand, that you do in fact believe both P and Q. This doesn't alter the nature of the deductive reasoning, and one sign of this is that the deduction has no determinant consequences for what you believe. In deducing R from P and Q, you can just as well abandon P or abandon Q (or both) as believe R. The deductive reasoning is neutral among these alternatives. Thus once again, it cannot be construed as a matter of moving from belief to belief. You may be engaging in the reasoning in order to test your beliefs P and Q, but the reasoning itself must be regarded as involving attitudes that are distinct from belief. For the purposes of the test, you hypothetically suspend belief in P and Q and adopt an attitude toward each that is weaker than belief. You assume or posit both P and Q and from these assumptions deduce R. You are then in a position to deliberate about whether to abandon P or Q (or both) or to believe R. The latter kind of deliberation does directly concern your beliefs, but on the other hand it is not deductive reasoning.

Consider a related worry. It might be thought without a conjunctive rule governing belief, we would lose the regulative role that considerations of consistency play in our deliberations about what to believe. Suppose, for example, that someone constructs a *reductio* argument out of a number of propositions that you believe. If rational belief need not be conjunctive and if as a result you can knowingly but rationally have inconsistent beliefs, then without irrationality it seems as if you can acknowledge the validity of this *reductio* without its having any effect on your beliefs.

The way to deal with this worry is to be clear about the nature of *reductios*. *Reductios* prove that the conjunction of their premises cannot possibly be true, that is, they prove inconsistency. They need not, however, show which of the presupposed premises is false. They only sometimes do this and then only in a derivative way by proving that the conjunction is false. In proving that the conjunction is false, *reductios* provide a potentially powerful argument against a given premise of the argument, but the strength of the argument against the premise depends on a number of factors.

Suppose, for example, that the premises of the argument are so theoretically intertwined with one another that they tend to stand or fall together. An argument against the truth of their conjunction will then constitute a strong argument against each and every premise as well.

Alternatively, if one of the premises is distinctly weak while the others are strong and there are a relatively small number of premises, a *reductio* provides a devastating argument against the weakest premise.

On the other hand, there are *reductios* whose premises are not like either of these cases. Their premises aren't so theoretically intimate that they tend to stand or fall together. Moreover, even the weakest premise is relatively strong and the number of premises is large. But if so, the strength of the *reductio* argument against even the weakest premise may be only negligible. This is the reverse of the idea, common enough in defenses of coherence theories of epistemic justification, that although consistency among a very small or theoretically untight set of propositions doesn't have much positive epistemic significance, consistency among a very large and theoretically tight set does. The point here, in contrast, is that although inconsistency in a very large and untight set of propositions need not have much negative epistemic significance, inconsistency among a very small or tight set does. The latter precludes the possibility that it is rational for you to believe each and every proposition in the set, but the former need not.

This is not to say that the discovery of inconsistency among a large and untight set of propositions is ever altogether irrelevant. It isn't. Inconsistency is always an indication of inaccuracy, and because of this, it should always put you on guard. In particular, it puts you on guard about using these propositions as evidence. On the other hand, a proposition can be rational for you to believe without it being the case that you can use it unrestrictedly as evidence to argue for or against other propositions. Although it sometimes can be rational to believe inconsistent propositions, it is never rational to base further deliberation and inquiry on inconsistent propositions.

So, a convincing *reductio* does show that it is irrational for you to believe the conjunction of its premises, because in doing so you would be believing an internally contradictory proposition. It also puts you on alert about the individual premises. This, in turn, may result in restrictions on how these propositions can be used as evidence. Even so, the case against the individual premises need not be so great as to make it irrational for you to believe them. The lottery, the preface, and the more general case of a fallibilist belief about your other beliefs are all examples of this. In each of these cases, it is possible to construct a *reductio* out of propositions that are rational for you believe, but a huge number of propositions are involved in establishing the inconsistency. The propositions are thus not serious competitors of one another. Nor are they so deeply intertwined with one another theoretically that they tend to stand or fall together.

The bottom line, then, is that the discovery of inconsistency often, but not always, makes for an effective *reductio*, that is, a *reductio* that constitutes powerful arguments against one or more members of the inconsistent set of propositions. On the other hand, it is precisely the rejection of the conjunction rule that allows us to say when a *reductio* can be so used and when it cannot.

Rejecting the conjunction rule does preclude one use of *reductios*. It precludes their being used to prove that knowingly believing inconsistent propositions is always and everywhere irrational. But this is hardly a criticism, since precisely the issue in question is whether this is indeed always and everywhere irrational. I say that it is not; that the lottery, the preface, and the case of a fallibilist belief about one's other beliefs plainly illustrate this; and that attempts to deny the obvious in these cases are based in part upon a failure to distinguish evidence from rational belief, and in part upon the unfounded worry that if inconsistencies are allowed anywhere they will have to be allowed everywhere.

Besides, what are the alternatives to rejecting the conjunction rule? They are to give up on the epistemology of belief altogether or to find some other way of dealing with the preface and the lottery within the confines of a theory of rational belief that retains the conjunction rule. But on this point, the critics of theories of rational belief are right. If we retain the conjunction rule, there is no natural way to do justice to the controlling intuitions of both the lottery and the preface.

Recall that the controlling intuition in the lottery is that it is rational for you to believe that the lottery is fair and that as such exactly one ticket will win. But with a conjunction rule, we are then forced to conclude that it cannot be rational for you to believe of any given ticket that it will lose, for if this were rational, it would be rational to believe of each ticket that it will lose, since by hypothesis your evidential position with respect to each is the same. But if it were rational for you to believe of each ticket that it will lose, then via the conjunction rule, it would also be rational for you to believe that (#1 will not win & #2 will not win . . . & #n will not win). This proposition is logically equivalent to the proposition that it's not the case (#1 will win or #2 will win . . . or #n will win). If it were rational for you to believe the latter proposition, however, it would be rational for you to believe explicitly contradictory propositions. But this is impossible: explicitly contradictory propositions cannot be simultaneously rational for you.

Unfortunately, if we reason in a parallel way about the preface, we find ourselves denying the controlling intuition about it, namely, that it is rational for you to believe the individual propositions that constitute the body of your book. This in turn would have broadly skeptical implications, since preface like cases can be created out of virtually any very large set of ordinary beliefs simply by adding to the set the belief that at least one member of the set is false. If, on the other hand, we grant that each of the propositions in the preface can be rational for you, we are forced to conclude, via the conjunction rule, that it is also rational for you to believe the conjunction of these propositions despite the fact that the conjunction is unlikely to be true.

To be sure, there are important differences between the lottery and the preface. An especially noteworthy one is that in the preface you can have knowledge of the propositions that make up your book whereas in the lottery you do not know of any given ticket that it will lose. This difference, however, is to be explained by the prerequisites of knowledge, not those of rational belief. The precise form of the explanation will depend on one's account of knowledge. For example, according to one kind of account, to know a proposition P you must have strong evidence for P that does not equally support a falsehood. In the lottery, however, it is the same evidence that supports the proposition that ticket #1 in the lottery will lose, that ticket #2 will lose, that ticket #3 will lose, and so on. Thus, given the above requirement for knowledge, you do not have knowledge of any of these propositions even though you have a rational true belief in all but one.

By contrast, the evidence that you have for each of the individual propositions in your book are not like this. By hypothesis, you have distinct evidence for the distinct propositions. Thus, even if one is false, the evidence you have for the others do not necessarily support the false proposition. And so, nothing in the above requirement implies that you do not have knowledge of these other propositions.

But all this is irrelevant to the main point at hand, which is that there is a straightforward way of dealing with the lottery and the preface without repudiating the epistemology of belief. It is to reject the assumption that rational belief is closed under conjunction. This allows us to stipulate a threshold for belief, if only a vague one, without paradox.

Nevertheless, it is still worth asking whether we shouldn't abandon the epistemology of belief. Doing so makes it easier to deal with the lottery and the preface. We simply say that it is rational for you to have a high degree of confidence in each of the particular assertions in those cases and a low degree of confidence in their conjunction, and we leave the matter at that, refusing even to entertain the question of what it is rational for you to believe *simpliciter*. Why have two theories when one might do just as well?

The answer is that one won't do just as well. There are deep reasons for wanting an epistemology of beliefs, reasons that an epistemology of degrees of belief by its very nature cannot possibly accommodate.

Consider a betting situation in which you know that nine of the ten cups on the table cover a pea, and you are offered the opportunity to bet 'pea' or 'not-pea' on any combination of the ten cups, with a $1 payoff for each correct guess and a $1 loss for each incorrect guess. In such a situation, a decision to bet 'pea' on each of the ten cups is rational. This is the optimal betting strategy even though you realize that this series of bets precludes an ideal outcome, in the sense that you cannot possibly win all of the bets. You know in advance that one is going to lose. Still, this is your best overall strategy.

Notice that the number of options available to you in this case is sharply limited. You can either bet 'yes' or 'no' on a pea being under a cup or you can refuse to bet. The theory of rational belief is concerned with epistemic situations that resemble this kind of restricted betting situation. The three betting options correspond to the three options with which the theory of rational belief is concerned: believing, disbelieving, and withholding. To be sure, not every betting situation is one in which the options are limited to just three. So too there is nothing in principle that limits belief-like options to just three. We can and do have various degrees of confidence in propositions, and we can and do ask whether our degrees of confidence are appropriate. Even so, in our deliberations we often want to limit our belief-like options to just three, and likewise in gleaning information from others we often want to limit them to just three. We often find it useful and even necessary to do so. We exert pressure upon others and upon ourselves to take intellectual stands.

In reading a manuscript of this sort, for example, you expect me to say what I think is true and what I think is false about the issues at hand. You expect me not to qualify my every assertion with the degree of confidence I have in it. You want my views to be more economically delivered than this. And so it is with a host of other informative, argumentative, and decision-making activities.

In decision making, for instance, we want and need at least some of the parameters to be set out without qualification. We first identify what we believe to be the acts, states, and outcomes that are appropriate for specifying the problem. It is only after we make this specification that there is a well-formed decision upon which to deliberate. It is only then that our more fine-grained attitudes—in particular, our degrees of confidence that various acts will generate various outcomes—come into play.

Similarly in expository books and articles, in reports, in financial statements, in documentaries, and in most other material designed to transfer information, we want much of the information delivered in black-and-white fashion. We want a definite yes or no on the statements in question while at the same time recognizing that this is not always feasible. Often the information available is not sufficiently strong one way or the other to allow the author to take a definite stand on all of the issues, in which case we tolerate a straddling of the fence.

Even so, the overall pattern is clear. If all the information provided to us by others were finely qualified with respect to the provider's degree of confidence in it, we would soon be overwhelmed. It is no different with our private deliberations. We don't have finely qualified degrees of confidence in a wide variety of propositions, but even if we did, we would soon find ourselves inundated if we tried to deliberate about complicated issues on the basis of them.[1]

We don't always need to take definite stands, of course. We sometimes welcome and even demand probabilities, but even here, the probabilities are arrived at against a backdrop of black-and-white assumptions—that is, a backdrop of belief. I calculate what to bet before I draw my final card, and I note to myself that the probability of the drawn card's being a heart, given the cards in my hand and the exposed cards of my opponents, is 0.25. Or I note that the probability of the die coming up six is 0.16667, or the probability of an American male's dying of a heart attack prior to age forty is 0.05. The assignment of such probabilities depends on antecedent black-and-white beliefs. I believe that the deck of cards is a standard deck, that the die isn't weighted, and that the statistics on heart attacks were reliably gathered. It might be argued that these background beliefs are so close to certain that we ignore their probabilities, but this is just the point. There are so many potentially distorting factors that we need to ignore most of them. We couldn't possibly keep track of all of them, much less have all of them explicitly enter into our deliberations. We therefore ignore many of them despite the fact that we recognize that there is some probability of their obtaining. We are content with our black-and-white beliefs about these matters.

[1] See Gilbert Harman, Change in View (Cambridge: MIT Press, 1988), Chapter 3.

So, we often try to avoid probabilistic qualifications, both in our own case and in the case of others. Indeed, a penchant for making such qualifications is in some contexts regarded as a mark of an overly cautious or even slippery personality. We do not want to get our everyday information from the overly opinionated but neither do we want to get it from the overly diffident or cagey. We commonly need others to provide us with a sharply differentiated picture of the situation as they see it.

In effect, we expect others, whether scientists, teachers, butchers, journalists, plumbers, or simply our friends, to act as jurors for us, delivering their black-and white judgments about the facts as best they can. In the American legal system, for example, juries have three options in criminal proceedings. Each particular juror has only two—to vote 'innocent' or to vote 'guilty'—but collectively they have three. If each individual juror votes 'innocent' the jury reaches a collective verdict of innocence and thereby acquits the defendant; if each votes 'guilty' the jury reaches a collective verdict of guilt and thereby convicts the defendant; otherwise the result is a hung jury, in which neither innocence nor guilt is declared.

No room is provided for judgments of degree here. Juries are not allowed to qualify their judgments. They cannot choose among 'almost certainly guilty' as opposed to 'highly likely to be guilty' as opposed to 'more likely than not to be guilty'. *A fortiori* they are not given the option of delivering numerically precise judgments. They cannot, for example, judge that it is likely to degree 0.89 that the defendant is guilty. Nothing in theory precludes a legal system from allowing such fine judgments and then adjusting the punishment to reflect the degree of belief that the jury has in the defendant's guilt, but there are good reasons for opposing a legal system of this sort. Such a system would be unwieldy and would invite injustice, since it would increase the percentage of innocent people who are punished.

Taking stands is an inescapable part of our intellectual lives, and the epistemology of belief is the study of such stands. The range of options is restricted to just three: to say yes to a proposition, to say no to it, or to remain neutral on it. The project is then to describe what is the best, or at least a satisfactory, combination of yes, no, and neutral elements to adopt, not for all time but for now.

Admittedly, it is sometimes odd to report opinion within a belief/disbelief/withhold judgment trichotomy. Doing so is sometimes even misleading. This is especially likely to be so with respect to games of chances and other situations in which it is natural to work with probabilities. In lottery cases, for example, you may be reluctant to say without qualification that you believe that ticket #23 will not win. You will be especially reluctant to say this if #23 is your ticket. To do so would be to under describe your opinion and would encourage misunderstanding (Well, if you believe it will lose, why did you buy it?). Even here, however, we can still ask, if you were forced to give a black-and-white picture, what picture should it be? Could it be rational for you to say yes to the propositions that ticket #1 will not win, that #2 not win, and so on, even though you realize one of these tickets will win?

I have been arguing that this can be rational for you. A combination of yes, no, and neutral elements that you know in advance is not ideally accurate can nonetheless be a satisfactory one for you, given your evidential situation and given the alternatives. The lottery, the preface, and the more general case of having fallibilistic beliefs about your other beliefs all illustrate this.