

Non-cognitivism and rational inference

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Abstract Non-cognitivism might seem to offer a plausible account of evaluative judgments, at least on the assumption that there is a satisfactory solution to the Frege–Geach problem. However, Cian Dorr has argued that non-cognitivism remains implausible even assuming that the Frege–Geach problem can be solved, on the grounds that non-cognitivism still has to classify some paradigmatically rational inferences as irrational. Dorr’s argument is ingenious and at first glance seems decisive. However, in this paper I will show that Dorr’s argument equivocates between two different notions of *evidence*, and that once this equivocation is noted there is no reason to doubt that non-cognitivism is consistent with the rationality of such inferences, at least if it is assumed that the Frege–Geach problem can be solved. In particular, I will show that non-cognitivists can endorse the same explanation of the rationality of such inferences that cognitivists should endorse, and that there is thus no need for non-cognitivists to offer any sort of idiosyncratic account of the epistemology of such cases, in contrast to what other commentators on Dorr’s argument have thought.

Keywords Non-cognitivism · Expressivism · Rationality · Frege–Geach problem · Cian Dorr

According to non-cognitivism, the primary function of evaluative judgment is not to express one’s *beliefs* about the world, but rather to express one’s *desires* or *plans* for

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how one wants the world to be.¹ For example, according to non-cognitivism, sincerely judging that *torture is always wrong* is not so much a matter of having a belief that every instance of torture has a particular moral property, but is more a matter of having, roughly, the strong desire that torture never occur, or a plan for living that excludes torture in all contingencies, etc.

Non-cognitivism can be attractive because it can seem that evaluative judgment is *necessarily motivating* and therefore more like desire than belief, and because it can seem that evaluative judgment is *subjective* in the sense that its appropriateness depends primarily on how one wants the world to be rather than on how one believes the world to be. In what follows I will focus on non-cognitivism about moral judgments for ease of exposition; however, I intend my remarks to generalize to non-cognitivism about any class of evaluative judgments, including judgments of personal taste, epistemic evaluations, etc.

Perhaps the most important problem for non-cognitivism is the Frege–Geach problem, which is the problem of accounting for all aspects of the meaning and logical properties of claims like *lying is wrong* on a non-cognitivist view. One important aspect of that problem can be illustrated via logically valid arguments like the following:

P1 If lying is wrong, then liars will be punished in the afterlife.

P2 Lying is wrong.

C So, liars will be punished in the afterlife.

*P1** If lying is wrong, then getting your little brother to lie is wrong.

*P2** Lying is wrong.

*C** So, getting your little brother to lie is wrong.

Both of these arguments are logically valid, which means that in each argument the conjunction of the premises is logically inconsistent with the negation of the conclusion, and thus that a person who accepts the premises but not the conclusion has a view that is incoherent in a rationally objectionable way. Although these facts are obvious, non-cognitivism has trouble accounting for them. The problem is that if non-cognitivism were true it seems like it would be possible to consistently and rationally accept the premises of such arguments together with the negations of their conclusions. For example, non-cognitivism seems to imply that it would be

¹ Thus, non-cognitivism is essentially a view about the psychology of evaluative judgments rather than a view about the truth-aptness of those judgments. This is true because non-cognitivists agree that moral judgments are more like desires than beliefs, but disagree about whether moral judgments are truth-apt. (Gibbard (2003) is an example of a non-cognitivist who claims that moral judgments are truth-apt.)

consistent to accept $P1^*$, $P2^*$, and $\sim C^*$, because if non-cognitivism is true acceptance of each of those claims seems to amount to a desire-like attitude, and it is generally consistent and rational for a person to have any combination of desire-like attitudes. Similarly, non-cognitivism seems to imply that it would be consistent to accept $P1$, $P2$, and $\sim C$, because if non-cognitivism is true acceptance of $P2$ amounts to a desire-like attitude, and it is generally consistent for a person to combine any desire-like attitude with any consistent set of attitudes, and there is nothing inconsistent about the combination of $P1$ and $\sim C$. Thus, non-cognitivism seems to deliver the absurd result that it can be consistent and rational to accept the premises of valid arguments like the ones above together with the negations of their conclusions. This is one central aspect of the Frege–Geach problem for non-cognitivism.

Thus, a satisfying solution to the Frege–Geach problem must explain why it is logically inconsistent and thus rationally impermissible to accept all of, for example, $P1$, $P2$, and $\sim C$ even if non-cognitivism is true. To see how such an explanation might be developed, it is useful to review an influential proposal due to Allan Gibbard. According to Gibbard, to accept a moral claim like $P2$ is to adopt a kind of plan for living, and in adopting a plan for living one rules out all plans that are inconsistent with it; furthermore, to accept a purely factual claim like C is to have an ordinary belief, and in having an ordinary belief one rules out any ordinary belief inconsistent with it; finally, to accept a ‘mixed’ claim like $P1$ is to adopt a complex attitude that rules out combining particular plans and ordinary beliefs. The result is a proposed non-cognitivist explanation of the inconsistency of accepting $P1$, $P2$, and $\sim C$: namely, that by accepting $P1$ one rules out combining planning to never lie with not believing that the souls of liars will be punished in the afterlife, and by accepting $P2$ one plans to never lie; thus by accepting $P1$ together with $P2$ one rules out not believing that the souls of liars will be punished in the afterlife, which is just to say that by accepting $P1$ and $P2$ one is committed to believing C . This is the basis of Gibbard’s explanation of why it is logically inconsistent to accept $P1$, $P2$, and $\sim C$, and why a person who accepts $P1$ and $P2$ but not C has a view that is incoherent in a rationally objectionable way.²

There is much disagreement as to whether Gibbard’s solution or any other solution allows non-cognitivists to offer a satisfactory account of logical consistency and other aspects of the Frege–Geach problem.³ However, many philosophers agree that *on the assumption* that a satisfactory account can be given of those things, non-cognitivism is a viable and perhaps even plausible view. Against this,

² Gibbard (2003, Chapter 3). I am oversimplifying Gibbard’s view of the planning state that corresponds to acceptance of $P2$. On Gibbard’s view, judging that lying is wrong is more like planning to resent liars and feel shame if one lies (Gibbard 2006, pp. 196–197; Gibbard 1990, pp. 45–49).

³ One problem is that Gibbard’s solution seems only to provide consistency conditions, rather than *logical* consistency conditions. For criticism of Gibbard’s proposed solution, see Schroeder (2008); see also Unwin (2001) and Dreier (2006). Another important aspect of the Frege–Geach problem is to explain what moral claims like *lying is wrong* mean when they are embedded in more complex claims—for example, to explain what *lying is wrong* means in $P1$, where it is embedded as the antecedent of that conditional; for an excellent discussion of this and other aspects of the Frege–Geach problem, see Schroeder (2008); see also Geach (1960), Searle (1962), Geach (1965), and Searle (1969, Chapter 6). For other worries about recent versions of non-cognitivism, see Dreier (2004).

Cian Dorr has argued that even if there is a satisfactory solution to the Frege–Geach problem, non-cognitivists still have to classify some paradigmatic cases of rational inferences as irrational cases of wishful thinking. Thus, Dorr argues that there is a serious epistemological problem for non-cognitivism that is independent of the Frege–Geach problem.⁴

To see the problem that Dorr has in mind, recall the following argument from above:

P1 If lying is wrong, then liars will be punished in the afterlife.

P2 Lying is wrong.

C So, the souls of liars will be punished in the afterlife.

Dorr's problem turns on a case in which a subject, Edgar, initially rationally accepts *P1*, but does not initially accept *P2* and is not initially in a position to rationally infer *C*. Subsequently, Edgar comes to accept *P2* in a rational way as a result of a priori reflection on his antecedent evidence, and then rationally infers *C* on the basis of his continued acceptance of both *P1* and *P2*. Despite the rationality of such an inference that *C*, Dorr claims that non-cognitivism would have to classify the inference as an irrational case of wishful thinking. Here is Dorr's argument for all of this:

[Suppose that] Edgar confidently accepts *P1*, having been taught to do so by teachers whom he takes to be authorities on this kind of matter. Since the teachers have not inculcated any views in him as regards the morality of lying, he is inclined to think that lying is perfectly all right provided you get away with it. So he does not accept *P2*. As regards *C* he is undecided, and has good reason to be. No-one who he trusts has told him anything one way or the other; nor does he have any evidence of his own that bears on the specific nature of the afterlife. Later, after reading a philosophy book, he is led to reflect on his moral commitments. The immediate result of this process is just this: he comes to accept *P2*. Holding fast to his commitment to *P1*, he does as coherence demands, and revises his expectations about the nature of the afterlife. He takes *P1* and *P2* as his reasons for initially coming to accept, and continuing thereafter to accept, *C*. If he were later to reconsider or reverse either of those attitudes, he would thereupon cease to accept *C*.

⁴ Some readers might disagree with the way I am characterizing all of this, on the grounds that accounting for rational inferences is *part* of the Frege–Geach problem, rather than a separate problem as I assume. I don't think that anything important turns on this issue of how to best characterize the Frege–Geach problem, and so I will use the characterization I prefer for ease of exposition. As far as I can tell, my discussion could be easily modified to make it consistent with such an alternative understanding of the Frege–Geach problem; for example, on such an understanding Dorr's point would then be that non-cognitivists cannot solve the Frege–Geach problem even if they can account for all aspects of the meaning and logical properties of moral claims, since they cannot account for all rational inferences even if they can account for all aspects of the meaning and logical properties of moral claims. I thank Tristram McPherson for noting the possibility of this alternative understanding of the Frege–Geach problem.

I say Edgar could well have been rational throughout the whole story. Before he changed his mind about P2, it would have been unreasonable for Edgar to come to believe C. But that was relative to the rest of his beliefs about the world as they were at that time. Once his beliefs had changed so as to include the belief that lying was wrong, they could easily have become such as to support C over its negation.

But what does the non-cognitivist say? It is part of the story that before his change of mind, Edgar had good reason not to believe C. It would have been irrational for him to come to believe C just on the basis of his evidence and his other beliefs as they were then. According to the non-cognitivist, all that happened when he came to accept P2 was a change in his non-cognitive attitudes. He acquired no new evidence or other beliefs relevant to the question of the fate of liars in the afterlife. Nor did he intuit the truth of C a priori, or take himself to have done so. So if believing C would have been irrational for Edgar before coming to accept P2, it was irrational for him afterward as well. Only a change in one's cognitive states, or in one's evidence, can make the difference between a case in which it would be irrational to believe something and one in which it would be rational to do so (Dorr, pp. 98–99).

The last paragraph suggests that Dorr's argument against non-cognitivism should be understood as follows:

- A1 "...before [accepting P2]...[i]t is irrational for [Edgar] to come to believe C just on the basis of his evidence and his other beliefs as they are then."
- A2 "According to the non-cognitivist, all that happens when he comes to accept P2 is a change in his non-cognitive attitudes. He acquires no new evidence or other beliefs relevant to the question of the fate of liars in the afterlife. Nor does he intuit the truth of C a priori, or take himself to have done so."
- A3 "So if believing C is irrational for Edgar before coming to accept P2, it is irrational for him afterward as well" (Dorr 2002, pp. 98–99; tense modified).
- A4 So, if non-cognitivism is true, Edgar's inference that C is irrational, which is the wrong result.

Dorr takes this argument to show that even if non-cognitivists can explain why P1 and P2 logically imply C and thus why it would be incoherent to accept P1 and P2 without accepting C, nonetheless they cannot explain how an inference like Edgar's could be a rational inference rather than an irrational case of wishful thinking. Thus, Dorr concludes that non-cognitivism faces a decisive objection that is independent of the Frege–Geach problem.

Dorr's argument can initially seem straightforward. However, on further reflection a problem emerges. The easiest way to see the problem is to note that if the argument is sound then there must be some difference between cognitivism and non-cognitivism regarding Edgar's case that makes it clear that Edgar's inference that C is rational if and only if cognitivism is true. However, on reflection it is unclear what that difference is supposed to be. For example, on both the cognitivists' and non-cognitivists' view Edgar doesn't intuit the truth of C a priori,

nor does he seem to acquire any new evidence when he comes to believe P2, since by the description of the case his acceptance of P2 is the result of a priori reflection on his antecedent evidence, and so there seems to be no difference between the views there, in contrast to what is suggested by Dorr's premise A2. This seems to leave only the characteristic difference that on the cognitivist view Edgar adds a belief by accepting P2, whereas on the non-cognitivist view he adds a non-cognitive attitude. However, absent some further argument, it is unclear why that characteristic difference alone would imply that Edgar's inference is rational if and only if cognitivism is true. The only obvious argument from that characteristic difference to the conclusion that Edgar's inference is rational if and only if cognitivism is true is the following: Edgar's inference that C is rational if and only if coherence demands that he accept C upon coming to accept both P2 and P1; such a coherence-based reason for inferring C is generated only if Edgar adds a belief rather than a non-cognitive attitude upon coming to accept P2; thus, Edgar's inference is rational if and only if cognitivism is true. However, this argument fails if there is a satisfactory solution to the Frege–Geach problem, since a satisfactory solution to that problem would show that even if non-cognitivism is true P1&P2 logically implies C, and thus that even if non-cognitivism is true coherence demands that one accept C upon coming to accept both P1 and P2, and thus that the second premise of the argument is false.

What then does Dorr take the crucial difference to be between cognitivism and non-cognitivism regarding Edgar's case? Careful attention to Dorr's discussion reveals that he thinks that the crucial difference is that Edgar has *sufficient evidence* for C upon coming to accept P2 if and only if cognitivism is true, since he relies on the claim that if non-cognitivism is true Edgar "lack[s] evidence for C" upon coming to accept P2. In the relevant passage, Dorr is arguing that non-cognitivists cannot use facts about background beliefs to explain the rationality of Edgar's inference that C:

...even if Edgar did have the background belief, his story must still be classified by the non-cognitivist as a story of irrationality. If it was irrational for Edgar to continue to accept P1 upon coming to accept P2, *given that he then lacked evidence for C*, then it makes no difference whether his taking this irrational step caused him to acquire new evidence for C. (Dorr 2002, p. 99; italics added).

Dorr's reliance on the claim that Edgar has sufficient evidence for C upon coming to accept P2 if and only if cognitivism is true suggests that his argument should be understood as follows⁵:

⁵ Note also the following passage: "It is irrational to modify your views about the world so that they cohere with your desires and feelings. That's wishful thinking! (Not that desires and feelings ought never influence beliefs. But the right way for them to do so is by prompting you to seek out and attend to new evidence, rethink your beliefs about what the old evidence supports, or engage in a priori reflection, rather than by causing you simply to rule out some possibility without regard to the B5 evidence.)" (Dorr 2002, p. 99; italics added).

- B1 Before accepting P2 it would be irrational for Edgar to come to believe C just on the basis of his evidence and his other beliefs as they are then. (This is the same as Dorr's A1 above.)
- B2 So, before accepting P2 Edgar lacks sufficient evidence for C.
- B3 If non-cognitivism is true, Edgar doesn't get any new evidence for C when he comes to accept P2. (Compare Dorr's A2 above.)
- B4 So, if non-cognitivism is true, then even after accepting P2 Edgar lacks sufficient evidence for C. (From B2 and B3. Compare Dorr's A3 above.)
- B5 So, if non-cognitivism is true, Edgar's inference that C is irrational, which is the wrong result. (This is the same as Dorr's conclusion A4 above.)

As before, this argument can initially seem straightforward. I myself was initially convinced that Dorr's conclusion was correct based on a tacit endorsement of this argument, and I suspect that others who accept his conclusion do so on a similar basis. If Dorr's crucial claim is right that Edgar has sufficient evidence for C upon coming to accept P2 if and only if cognitivism is true, then his case against non-cognitivism succeeds. However, in what follows I will argue that this claim is false. The problem is that there are two different ways that 'evidence' can be understood, and the argument fails on either disambiguation, because in neither sense does Edgar have sufficient evidence for C if and only if cognitivism is true. Once this is clear, it will emerge that non-cognitivists can endorse the same explanation of the rationality of inferences like Edgar's that cognitivists should endorse.

To see all of this, it is useful to begin by reading 'evidence' in the straightforward sense of *empirical evidence*, according to which a priori reasoning does *not* give one new evidence for empirical conclusions. On that understanding of 'evidence', the argument fails because it mistakenly implies that Edgar's inference is irrational even if *cognitivism* is true. To see why, note that when 'evidence' is understood in that way the premises of the argument—B1 and B3—remain true even if 'cognitivism' is substituted for 'non-cognitivism' throughout the argument. That's because the cognitivist analog of B1 is part of the description of the case (where *the cognitivist analog of B1* is the result of replacing 'non-cognitivism' with 'cognitivism' in B1), and the cognitivist analog of B3 is true because it is part of the description of the case that Edgar's acceptance of P2 is the result of a priori reflection on his antecedent evidence, which means that he doesn't get any new empirical evidence for C in coming to accept P2 even if cognitivism is true. So, if the argument above were a good argument when 'evidence' is understood in the sense of empirical evidence, it would show that Edgar's inference that C is irrational even if cognitivism is true, which is the wrong result. It follows that the argument fails when 'evidence' is understood in the classical sense of empirical evidence.

It is important to see that the argument cannot be saved by modifying Edgar's case so that his acceptance of P2 is not the result of a priori reflection on his antecedent evidence. That's because Dorr's argument would then fail for a more straightforward reason, since then the premise would be false that "all that happens when [Edgar] comes to accept P2 is a change in his non-cognitive attitudes. He acquires no new evidence or other beliefs relevant to the question of the fate of liars in the afterlife". (Argument A1–A4 would then fail because A2 would be false, and

Argument B1–B5 would then fail because B3 would be false.) In particular, if Edgar’s case were modified so that he came to accept P2 not on the basis of a priori reasoning from his antecedent evidence, but rather on the basis of some new empirical evidence—for example, a rigorous study that somehow demonstrated that lying leads to horrific consequences—then cognitivists and non-cognitivists alike could appeal to this new empirical evidence as rationalizing his subsequent inference that C, and it would be false to claim, as Dorr does, that Edgar “acquires no new evidence...relevant to the question of the fate of liars in the afterlife” in coming to accept P2. So, because Dorr’s argument has an obviously false premise unless it is tacitly assumed to be directed at *a priori* cases in which one comes to accept a claim like P2 as a result of a priori reflection on one’s antecedent evidence, we should assume in what follows that Dorr intends his argument to be understood against the background of a priori cases, and thus that Edgar’s case is to be understood as an a priori case, just as Dorr suggests.⁶

Once it is clear that the argument doesn’t succeed when ‘evidence’ is understood in the straightforward sense of empirical evidence, it might seem that Dorr’s case against non-cognitivism is in trouble. An important further problem is that the discussion above can be extended to show that even if non-cognitivism is true subjects like Edgar have sufficient empirical evidence for their conclusions, which makes it hard to see how they could be guilty of “wishful thinking” as Dorr claims. To see why, note first that when ‘evidence’ is understood in the sense of empirical evidence, the criticism of argument B1–B5 above can be extended to show that B2 is false, since if it were true, then the mistaken conclusion that Edgar’s inference that C is irrational even assuming *cognitivism* would have to be true too, since that conclusion is entailed by the conjunction of B2 and the cognitivist analog of B3, and the cognitivist analog of B3 follows from the description of the case, as was noted above. So, it follows that B2 is false, which is just to say that it follows that Edgar has sufficient empirical evidence for C before coming to accept P2, at least if cognitivism is true. But if that’s right, then it will also have to be granted that Edgar has sufficient empirical evidence for C before coming to accept P2 *even if non-cognitivism is true*, since no difference regarding Edgar’s evidential state *before* coming to accept P2 follows from the difference between cognitivism and non-cognitivism. Generalizing, this means that it will have to be granted that subjects in a priori cases like Edgar’s have sufficient empirical evidence for their conclusions even if non-cognitivism is true, which makes it hard to see how any quick argument

⁶ Dorr seems to grant on page 100 and especially in his footnote 3 that his argument only works against the background of a priori cases. In general terms, this is because sophisticated non-cognitivists can endorse the same explanation that cognitivists offer of non-a priori cases: namely, that a change in the subject’s empirical evidence explains why s/he comes to be in a position to infer the conclusion rationally. Further discussion and similar observations can be found in Lenman (2003) and Kroll (unpublished), in addition to the passages just cited in Dorr’s article. On Gibbard’s view, the relevant ‘sophisticated explanation’ is that the plans one adopt commit one to a view about what purely descriptive property constitutes being wrong insofar as one has a plan for all possible ways the world might be; thus, uncertainty about how the world is can leave one uncertain about whether an action is wrong, because one is uncertain about whether an action has the descriptive property that *constitutes* wrongness; thus, getting new empirical evidence can rule out the possibility that an action fails to have that property, which then licenses a judgment about whether the action is wrong (Gibbard 2003, Chapter 5).

like Dorr's could show that non-cognitivism is inconsistent with the rationality of such conclusions.⁷

Despite all of this, it might still seem that Dorr's argument is on to something. To make progress, we can note again that if Dorr's argument succeeds, then there must be a crucial difference between what cognitivism and non-cognitivism entail about Edgar's epistemic position upon accepting P2, where this difference makes it clear that Edgar's inference that C is rational if and only if cognitivism is true. The discussion up to this point has shown that it is unclear what this difference is supposed to be, and that, in particular, there is no difference in the adequacy of Edgar's empirical evidence for C depending on whether cognitivism or non-cognitivism is assumed. If Dorr's argument is to be vindicated, then some other crucial difference must be identified.

Fortunately for Dorr, there is some room to maneuver here. That's because it is plausible to claim that a priori reasoning often provides one with new information that should increase one's credence in empirical conclusions, and that such new information is the key to explaining the rationality of Edgar's inference that C. Thus, it is plausible to claim that despite having sufficient *empirical evidence* for C before coming to accept P2, there is nonetheless an important sense in which Edgar is not in a position to infer C rationally until he acquires some other, *non-empirical* new information via a priori reasoning. As a result, Dorr's conclusion might still be plausible if he could show that Edgar acquires such non-empirical new information only if cognitivism is true.⁸

To see why it is plausible to claim that a priori reasoning can provide non-empirical new information that is essential to rationalizing empirical inferences, consider a case in which a subject has a rich body of empirical evidence but does not appreciate the implications of that evidence until she engages in some non-trivial a priori reasoning. In such a case it will be plausible to say that she has sufficient empirical evidence for empirical conclusions even before she engages in a priori reasoning, but that there is nonetheless an important sense in which she is not in a position to infer those conclusions rationally until appreciating the implications of that evidence via a priori reasoning, and thus that a priori reasoning provides her with new information that is crucial to rationalizing those empirical conclusions.

For example, imagine a case in which a detective has interviewed all the witnesses and gathered all the available evidence, but has not yet formed an opinion about who the murderer is. The detective retires to her armchair, lights a pipe, closes her eyes and begins to reflect. She painstakingly traces out the consequences of the evidence before finally realizing that the murderer must have been Jones. In such a case, we can suppose that the detective has all the empirical evidence she needs for inferring that Jones is the murderer even before engaging in a priori reflection, but that she is nonetheless not in a position to make that inference until she recognizes via a priori reasoning that her evidence implies that Jones is the murderer.⁹

⁷ Here and in what follows, by "a priori cases like Edgar's", I mean "a priori cases in which subjects' empirical conclusions are rational".

⁸ I thank Gideon Rosen for suggesting that I consider this line of response.

⁹ I thank Sarah McGrath for suggesting that I include this kind of case for illustration.

Similarly, consider the case of Steve, who wonders whether he is descended from Icelandic royalty. Steve knows that his father, the family genealogist, will know whether he is; however, he also knows that his father will not give him a straightforward answer when he asks, but will instead present the correct answer in the form of a riddle. Unsurprisingly then, when Steve asks his father about their Icelandic heritage, his father, who knows that Steve has no opinion about the morality of lying, tells him that he is descended from Icelandic royalty if and only if lying is wrong, and leaves it to Steve to work out the right answer. Upon hearing his father's riddle Steve carefully reflects on the morality of lying, and after some non-trivial a priori reflection he comes to accept in a rational way that lying is wrong. At the same time, he continues to rationally accept the biconditional that he is descended from Icelandic royalty if and only if lying is wrong based on his father's testimony.¹⁰ As a result, Steve rationally infers that he is descended from Icelandic royalty on the basis of his continued rational acceptance of both the moral claim and the relevant biconditional.

Just like the detective, Steve has all of the empirical evidence he needs to infer his conclusion even before engaging in a priori reasoning. (If this were false his ultimate conclusion would be irrational, since it would then be based on the same insufficient empirical evidence.) Nonetheless, he isn't in a position to infer his conclusion until he recognizes the implications of that evidence via a priori reasoning. Thus, it is natural to say that a priori reasoning provides him with important new information that is crucial to rationalizing his empirical conclusion that he is descended from Icelandic royalty.

Returning to Dorr's argument, Edgar, just like Steve and the detective, has all of the empirical evidence he needs to infer C even before engaging in the a priori reasoning that leads him to accept P2. Nonetheless, it is natural to say that he isn't in a position to infer C until he gets some crucial new information via the a priori reasoning that leads him to accept P2. Thus, if Edgar gets that new information if and only if cognitivism is true, then there is good reason for thinking that non-cognitivism cannot account for the rationality of his subsequent inference that C.

However, even if we agree that Edgar's inference is rational only if he gets such new information, that still doesn't give rise to any problem for non-cognitivism, because there is no reason to think that non-cognitivism implies that subjects do not get such new information as the result of a priori reflection. For example, if there is a solution to the Frege–Geach problem, then even if non-cognitivism is true there is no reason to think that in cases like Edgar's the process of reasoning that leads to the adoption of a desire- or plan-like attitude would not at the same time lead to the recognition that one's empirical evidence implies the relevant empirical conclusion, assuming that that is the crucial feature of such cases that even cognitivists should use to explain the rationality of the subsequent empirical inferences. In addition,

¹⁰ We might assume that Steve is rational in continuing to accept the biconditional in part because he is entitled to suppose that his father's testimony is honest and that the moral norms that he and his father accept would give the same verdict regarding the morality of lying. It is important to see that some such rationalizing background assumption must be understood as part of Steve and Edgar's cases in order to explain why *even if cognitivism is true* those subjects' inferences are rational. For further discussion of related issues, please see the [Appendix](#).

there is no reason to think that non-cognitivism is inconsistent with the acquisition of any other information that one might be thought to receive via a priori reasoning, since non-cognitivism is consistent with any plausible view of the introspectively available aspects of one's reasoning, etc. Thus, there is no reason for thinking that there is any difference between cognitivism and non-cognitivism regarding the sense in which one receives new information as a result of a priori reflection, at least if it is assumed that there is a solution to the Frege–Geach problem.¹¹

In response to this, it might be objected that some non-naturalistic versions of cognitivism claim that introspection gives one additional non-naturalistic evidence about moral truths via some faculty of 'moral insight' akin to perception, and that it is inconsistent with non-cognitivism to suppose that one gets such evidence. However, if this is supposed to show that non-cognitivism is inconsistent with the rationality of inferences like Edgar's, then it must be assumed that Edgar's inference is rational only if he gets this sort of non-naturalistic evidence as a result of his acceptance of P2; however, if that is assumed, then it follows that his inference is rational only if the relevant kind of non-naturalism is true, which would mean that even naturalistic versions of *cognitivism* could not account for the rationality of his inference. But this cannot be the right way to interpret Dorr's argument: surely his argument cannot be taken to show that naturalistic versions of cognitivism are false.¹²

The upshot of all of this is that there is no good sense in which the crucial premise in Dorr's reasoning is true (namely, that Edgar has sufficient evidence for C upon coming to accept P2 if and only if cognitivism is true) since that premise is false when 'evidence' is understood in the classical sense of *empirical evidence*, and also when 'evidence' is understood as *information in a broad sense, including non-empirical new information one gets via a priori reasoning*. Furthermore, we've seen that subjects like Edgar have sufficient empirical evidence for their inferences even if non-cognitivism is true, which makes it hard to see how any quick argument like Dorr's could have much force. Finally, we can note that if Dorr's argument regarding Edgar's case were sound, then a parallel argument would show that Steve's inference in the case above is also irrational if non-cognitivism is true. However, such an argument does not even have *prima facie* force regarding Steve's case.

This suggests a diagnosis of Dorr's argument as equivocating on 'evidence', where this equivocation is more subtle and seductive against the background of cases like Edgar's than cases like Steve's. It is easy to see the equivocation when Dorr's argument is presented in the way we have most recently been considering:

B1 Before accepting P2 it would be irrational for Edgar to come to believe C just on the basis of his evidence and his other beliefs as they are then.

¹¹ I thank Nick Kroll, Sarah McGrath, and Tristram McPherson for encouraging me to clarify the discussion here in various ways.

¹² If Dorr's argument did presuppose the existence of anything like non-naturalistic evidence, it would be question-begging and uninteresting, because it would then depend on a very controversial premise that is obviously inconsistent with non-cognitivism. I thank Stewart Cohen for helping me clarify the argument here against reliance on a non-naturalistic conception of evidence.

- B2 So, before accepting P2 Edgar lacks sufficient evidence for C.
 B3 If non-cognitivism is true, Edgar doesn't get any new evidence for C when he comes to accept P2.
 B4 So, if non-cognitivism is true, then even after accepting P2 Edgar lacks sufficient evidence for C.
 B5 So, if non-cognitivism is true, Edgar's inference that C is irrational, which is the wrong result.

The problem is that there are two different ways that 'evidence' can be understood in the argument, and the argument fails on either disambiguation. If 'evidence' is understood in a broad sense to include any relevant information at all, including non-empirical information, then insofar as B2 is true, the argument fails because B3 is false, since in that sense of 'evidence' Edgar gets new evidence for C upon accepting P2 regardless of whether cognitivism or non-cognitivism is true, since he then, for example, can be said to see for the first time that his empirical evidence implies C; on the other hand, if 'evidence' is taken in a more narrow sense to mean empirical evidence in the classical sense, then B3 is true but the argument fails because B2 is false, since in that sense of 'evidence' Edgar has sufficient evidence for C even before coming to accept P2 even if non-cognitivism is true, as was noted above. Thus, on either understanding of 'evidence' the argument fails. The argument is seductive regarding Edgar's case but not Steve's because while it is *typically* true that one lacks sufficient empirical evidence for a conclusion when one is not in a position to infer that conclusion rationally, it is hard to see that Edgar's case is an exception to this general rule, but easy to see that Steve's case is an exception. As a result, an argument like B1–B5 can seem compelling regarding Edgar's case with 'evidence' understood as empirical evidence, even though a similar argument does not have much appeal regarding Steve's case.

A similar diagnosis can be offered regarding Dorr's original presentation of the argument:

- A1 "...before [accepting P2]...[i]t is irrational for [Edgar] to come to believe C just on the basis of his evidence and his other beliefs as they are then."
 A2 "According to the non-cognitivist, all that happens when he comes to accept P2 is a change in his non-cognitive attitudes. He acquires no new evidence or other beliefs relevant to the question of the fate of liars in the afterlife. Nor does he intuit the truth of C a priori, or take himself to have done so."
 A3 "So if believing C is irrational for Edgar before coming to accept P2, it is irrational for him afterward as well" (Dorr 2002, pp. 98–99; tense modified).
 A4 So, if non-cognitivism is true, Edgar's inference that C is irrational, which is the wrong result.

Once again, the problem is that there are two different ways that 'evidence' can be understood in the argument, and the argument fails on either disambiguation. If 'evidence' is understood in a broad sense to include any relevant information at all, including non-empirical information, then insofar as A1 is true, the argument fails because A2 is false, since in that sense of 'evidence' Edgar gets new evidence for C upon accepting P2 regardless of whether cognitivism or non-cognitivism is

true, since he then, for example, can be said to see for the first time that his empirical evidence implies C; on the other hand, if ‘evidence’ is taken in a more narrow sense to mean empirical evidence in the classical sense, then A2 is true, but the argument fails because either A1 is false or there is no reason to think that A3 follows from A1 and A2: if A1 is understood as having the implication that Edgar lacks sufficient empirical evidence for C before coming to accept P2, then A1 is false as was noted above; on the other hand, if A1 is not supposed to have that implication, then there is no reason to think that A3 follows from A1 and A2, as our inability to find any crucial epistemic asymmetry between cognitivism and non-cognitivism regarding Edgar’s case revealed.

Thus, on either understanding of ‘evidence’ the argument fails. The underlying problem is that the argument fails to show that there is any crucial epistemic asymmetry between cognitivism and non-cognitivism if we assume that there is a solution to the Frege–Geach problem. In particular, it provides no reason to doubt that even if non-cognitivism is true there is an important sense in which Edgar gets new information upon coming to accept P2 as the result of a priori reasoning, which we’ve seen is the key to explaining the rationality of his subsequent inference that C even if cognitivism is true.

It could be objected that such an appeal to ‘new information as the result of a priori reasoning’ is overly vague, and thus that non-cognitivists must provide a more detailed and convincing account of the epistemology of cases like Edgar’s in order to offer a satisfactory reply to Dorr’s argument. However, it would be unfair to demand that non-cognitivists offer a more detailed and convincing account of such cases, because even *cognitivists* are in no position to offer such a thing, since the epistemology of such cases is very controversial for reasons independent of metaethics. Instead, all that can be expected is for non-cognitivists to show that their view is consistent with any plausible and non-question begging account of such cases. I’ve argued that non-cognitivists can do this, because regardless of whether the rationality of such inferences are ultimately explained by coherence conditions, or by the recognition of evidential implications, or in some more complicated way, there is no reason to doubt that non-cognitivism is consistent with such an explanation, assuming that the Frege–Geach problem can be solved. In short, I’ve argued that there is no reason to doubt that non-cognitivists can endorse the correct explanation of such cases, whatever exactly that correct explanation turns out to be. As a result, I conclude that Dorr’s argument provides no reason to think that non-cognitivism is inconsistent with the correct account of rational inferences, at least assuming that the Frege–Geach problem can be solved.

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Appendix: two possible objections

Even with the preceding discussion in hand, there might still be residual worries about the account I have given. In what follows, I try to anticipate and respond to two such worries.

The first worry is that my epistemological account of the relevant cases is insufficiently detailed and thus leaves something to be desired. My main response to this objection is that it is a virtue of my account that it lacks detail, because this means that it does not rely on the idiosyncratic and controversial details of any particular view. However, at the same time, I share the desire for a more detailed explanation of the cases above, which rely on testimony and a priori reasoning in interesting ways. In what follows I will try to bring out some interesting and complicated features of such cases, with the goal of reinforcing the idea that non-cognitivism is consistent with whatever the correct explanation of such cases turns out to be.

To begin, it may be useful to note the existence of an interesting kind of case, not discussed above, in which a person rationally accepts *P if and only if Q* on the basis of testimony, then comes to rationally accept *P*, and then rationally infers $\sim Q$. Although such a case can sound absurd in the abstract, it is easy to understand when considered in detail. For example, consider a variant on a case discussed above: Steve asks his father whether he is descended from Icelandic royalty, and his father answers in the form of a riddle by telling him that he is descended from Icelandic royalty if and only if lying is wrong. Steve carefully reflects on the morality of lying, and after recognizing some new considerations relevant to the morality of lying, he comes to accept in a rational way that lying is wrong; however, at the same time and through the same process of reasoning, Steve realizes that his father expected him to reach the opposite conclusion, and thus expected him to infer that he is not descended from Icelandic royalty. In such a case, if Steve knows that his father would never try to mislead him, it might well be rational for Steve to infer that he is not descended from Icelandic royalty. In this case, Steve rationally accepts something of the form *P if and only if Q* on the basis of testimony, then rationally accepts *P*, and then rationally infers $\sim Q$. Of course, Steve rejects *P if and only if Q* as soon as he accepts *P*, which is how his view remains consistent throughout the story.

This modified version of Steve's case shows two important things. First, it shows that a naïve view of rational inference and testimony is mistaken according to which one is to simply take the contents of testimony as given, and then uncritically use them "as coherence demands" whenever one adds new beliefs. A more plausible view might appeal to something like evidential probabilities, allowing for cases in which a biconditional of the form *P if and only if Q* has a high probability on the basis of testimony, but a low conditional probability given some further evidence *E*, where it is also true that the probability of *P* and $\sim Q$ given *E* is high. This kind of probabilistic explanation could explain how Steve can be rational throughout the story just considered.¹³ A more detailed account would focus on Steve's evidence

¹³ See Sorensen (1988) for a discussion of related cases that seem to require a similar probabilistic explanation.

before receiving his father's testimony, because that background evidence would explain the rationality of the particular way that Steve uses his father's testimony in subsequent reasoning.

With that in mind, the second thing to note is that Edgar's case must be understood in a slightly different way from the case involving Steve just considered, since Dorr stipulates that on the cognitivist view Edgar is rational in continuing to accept the relevant conditional even after coming to accept its antecedent. In probabilistic terms, this means that Edgar's case must be understood as a case in which there is a high probability of his ultimate conclusion C given E^* , where E^* is whatever total evidence Edgar has after reflecting on the morality of lying. Of course, as noted above, even if non-cognitivism is true Edgar will also have total evidence E^* after reflecting on the morality of lying, so no problem arises for non-cognitivism regarding the evidential probabilities in such a case. This illustrates how non-cognitivism is consistent with any plausible probabilistic explanation of such cases.

With this sort of probabilistic structure in mind, we can consider other interesting cases involving testimony. For example, suppose that my religious leader tells me that if lying is wrong, then liars will be punished in the afterlife; then, later, my wife tells me that lying is wrong. Am I justified in concluding that liars will be punished in the afterlife?¹⁴ This is a difficult question to answer. However, a lot will turn on what my total evidence is after hearing my wife's testimony. If that evidence sufficiently supports the conclusion that liars will be punished in the afterlife, then it would be rational for me to reach that conclusion if I based my conclusion on that evidence in the right kind of way. Importantly, nothing here seems to turn on the question of whether cognitivism or non-cognitivism is true; instead, everything seems to turn on the quality of my evidence, which will be the same regardless of whether cognitivism or non-cognitivism is assumed.

Although probability theory provides an attractive account of many aspects of these cases, it is unclear whether it can account for all aspects of such cases. For example, there are some 'a priori cases' in which a subject is not in a position to infer an empirical conclusion until engaging in some a priori reasoning, despite the fact that the a priori reasoning does not seem to provide them with new evidence in any sense. For example, recall the case discussed above in which a detective has interviewed all the witnesses and gathered all the available evidence, but has not yet formed an opinion about who the murderer is. The detective retires to her armchair, closes her eyes, and carefully reflects on her evidence, before finally realizing that the murderer must have been Jones. In this case, it could be argued that the evidential probability of Jones being the murderer is the same both before and after the detective's reflection, but her reasoning allows her to *base* her conclusion on her evidence in the right kind of way to ensure a rational inference. Despite such complications regarding 'the basing relation', there is no reason to doubt that non-cognitivism is consistent with whatever the correct account of that relation turns out to be.

¹⁴ I thank an anonymous referee for suggesting that I consider this case.

Even setting those issues aside, there are other cases in which a simple appeal to evidential probability might seem inadequate to explain the rationality of inference. For example, suppose that I accept the conditional *if P then Q* on the basis of testimony, but then later forget why I initially accepted the conditional; subsequently, I come to believe *P* in a rational way. In such a case, an inference that *Q* might arguably be rational, even if I can't recall why I believe the conditional (Harman 1986, Chapter 4).¹⁵ On the assumption that this kind of case is genuinely possible and that there is a solution to the Frege–Geach problem, non-cognitivism is perfectly consistent with whatever background facts might be claimed to explain the rationality of my inference—for example, current vs. forgotten evidence, coherence conditions, etc.

The upshot of all of this is that although complicated factors might often be at play in the explanation of rational inferences, non-cognitivism is consistent with all of those factors if there is a solution to the Frege–Geach problem, and so there is no special problem for the view on any plausible account of the rationality of inference.

A second worry with my general response is that even if Dorr's case against non-cognitivism fails, there might be a different problem for non-cognitivism that arises from cases like Edgar's. For example, it could be objected that if non-cognitivism is true, then there are no rational constraints on the adoption of moral views, and thus according to non-cognitivism one has rational permission for adopting any moral view at any time, and if that's right, then whenever one rationally accepts a conditional like P1, non-cognitivism implies that it is absurdly easy to put oneself in a position to rationally infer the corresponding empirical consequent (C) by simply changing one's view so that one accepts the moral antecedent of the conditional (P2). But (such a worry concludes), this is absurd, since it is obviously not so easy to come to be in a position to infer empirical claims, and so non-cognitivism is false.

One problem with this objection is that it assumes that there are no rational constraints on the adoption of moral views if non-cognitivism is true; however, that assumption is false if there is a solution to the Frege–Geach problem, because then it is logically inconsistent and thus rationally impermissible to accept, for example, P2 while continuing to accept P1 and \sim C.

Even setting that issue aside, any plausible non-cognitivist view will reject the claim that there are no rational constraints on the adoption of moral views for more general reasons. For example, on Gibbard's view the adoption of moral views is constrained by norms of rationality that are indistinguishable in practice from the norms of rationality that cognitivists would endorse (Gibbard 1990, pp. 169–171; Gibbard 1993, pp. 324–326). As far as I can tell other non-cognitivists would say approximately the same thing. Thus, the lack of rational constraints that the objection assumes is neither an essential nor popular part of non-cognitivist views. As a result, non-cognitivists can legitimately respond to this objection by denying that their view permits the adoption of moral views in the arbitrary way that the objection assumes.

¹⁵ It might be argued that inferring *Q* in such a case could be rational even if my initial acceptance of the conditional was irrational, because I have forgotten my reasons for initially accepting the conditional and now rationally take myself to have had good reasons for initially accepting it.

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