

BROWN ON MACKIE: ECHOES OF THE LOTTERY PARADOX

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Phil Brown (2011) considers whether moral error theory is best understood as a necessary or contingent thesis. The question is inspired, in part, by Christian Coons' (2011) argument that error theory can be true *only* if it is necessarily true in a world like ours. Brown contends that the argument from relativity, offered by John Mackie (1977)—error theory's progenitor—supports a stronger modal reading of error theory. Brown writes:

Assume that Mackie is right both about the diversity of moral opinions at different times and places and about the best explanation of this fact. Then any world that is a non-moral duplicate of our own will be one at which there is a diversity of moral opinions that is best explained in the way that Mackie explains it. Unless we think we should believe some explanation for the diversity of moral opinions other than the best one, then we should conclude that [the claim that there “is a possible world *W*, identical to the actual world in all non-moral respects, where there are moral facts”] is false. (Brown 2011, 3, bracketed quote at 2)

This argument appears to be of the following general form: Consider an abductive argument for non-modal conclusion *C*—an argument according to which *C*¹ is the best explanation, in the actual world (*W*_A), for some given fact, *F*. (In Brown's argument, *F* is the diversity of moral opinions and *C* is error theory.) Now consider the set of possible worlds *W*, each of which is exactly like *W*_A in all respects relevant to that abductive argument.² It follows, it seems, that *C* is true at each *W*-world. For if *C* is the best explanation for *F* in *W*_A, and each *W*-world is identical to *W*_A in all relevant respects, then *C* is the best explanation for *F* in each *W*-world. Given the justificatory force of abductive reasoning—i.e., given that we may conclude that *C* (at *W*_A) from the premise that *C* is the best explanation of *F* (at *W*_A)—it seems we may likewise conclude that *C* at each *W*-world given that *C* is the best explanation

¹ For simplicity's sake I will use “*C*” to refer both to the conclusion and the facts described therein. Thus I will refer, for example, to worlds that are identical to the actual world “with the possible exception of *C*,” rather than “with the possible exception of the facts described in *C*.”

² That is, each *W*-world must possess those features of *W*_A that ensure that *C* is *F*'s best explanation at *W*_A. Note that this will never require one to initially hold *C* constant across *W*, as *C* cannot be a premise in an argument for itself. Brown takes care of this caveat by talking about worlds that are *non-morally* identical to *W*_A, which allows for the initial appearance that error theory might be false at such worlds even if it were true at *W*_A.

for F in each such world. And, of course, we may conclude that C is the best explanation of F in each W-world from the fact that C is the best explanation of F in W_A —for again worlds in W and W_A are identical in all relevant respects. Therefore it seems we may conclude C is true at all worlds in W.

By switching contexts, it becomes clear just how troubling Brown's argument is. Consider a recently estranged couple. It may well be that the best explanation for my seeing them walking hand-in-hand is that they have reconciled. And it may well be that, having recognized this fact, I have license to *believe* that they have reconciled. But surely it would be extreme for me to conclude that they have reconciled *in all possible worlds like this one*. Indeed, this further conclusion seems not merely unjustified, but obviously false—after all, one of the defining features of abduction as a form of non-deductive reasoning is that its conclusions are not necessitated by its premises, that the couple's reconciliation is the *best* possible explanation of what I saw but not the *only* one.³ Yet unless Brown means to be picking out some special aspect of the error-theoretic case that I have overlooked, the stronger modal conclusion about the couple's reconciliation is no more nor less justified than his own modal conclusion about Mackie's error theory.

That Brown's argument can be extended as above to the case of the couple seems to me a sufficient *reductio* of that argument. Nevertheless, the argument deserves a closer look, I believe, because though clearly problematic, it is not immediately clear *what* is wrong with arguments of this form *aside* from the (obviously important) fact that they tend to generate false conclusions. Consider:

1. From the premise that C is the best explanation for F in W_A , one may conclude that C in W_A .
2. If C is the best explanation for F in W_A and each W-world is identical to W_A in all relevant⁴ respects, then C is the best explanation for F in each W-world.
3. Therefore, if C is the best explanation for F in W_A and each W-world is identical to W_A in all relevant respects, one may conclude that C at W_A and at each W-world.⁵

³ For discussion and references, see Douven (2011).

⁴ Again, this means each W-world must have all those features of W_A that make it the case that C is the best explanation for F in W_A . And, again, these features cannot include C itself lest the abductive argument be blatantly question-begging.

⁵ It is worth noting that this argument does not depend on the reasoning's being abductive. Indeed, it seems it can be generalized to apply to all forms of non-deductive reasoning and to a possibly broader range of possible worlds, roughly as follows:

I will simply assume that (1)—a general (though imprecise) statement of the justificatory force of abductive reasoning—is true.⁶ (2), if anything, is even more intuitive than (1). After all, whatever features of W_A make it the case that C is F 's best explanation at W_A , those features obtain at each W -world.

A more promising strategy, perhaps, would be to challenge the move to (3). But the only grounds for doing so, it seems, would be an insistence that abductive reasoning is somehow limited to the actual world, thus undermining (3) as a natural extension of (1).

One might propose that abduction can only reach conclusions *at* the actual world. But this is wholly unmotivated. Suppose you and I are discussing the recently estranged couple, and I tell you that I saw them holding hands. “I saw the same thing,” you reply, “they must have gotten back together.” I agree with your conclusion. But, I muse, should our doppelgangers in a world otherwise identical to this one reach the same conclusion if they’ve seen the two holding hands *and eating ice cream*? If we insist that abductive reasoning is limited to conclusions at the actual world, it seems you should reply that you have no idea what, if anything, our doppelgangers should conclude in that possible world. Yet assuming that their eating ice cream is irrelevant to our shared conclusion, this response seems patently bizarre. You *ought* to reply that *of course* our doppelgangers should reach the same conclusion we have, for they would have just the same evidence as we do that the (doppelganger) couple has gotten back together.

Alternatively, one might suggest that abduction can only employ premises or reach conclusions *about* the actual world? This is less clear. On the one hand, it seems right to say that because abductive inferences are non-necessary, precisely what I am doing is inferring one thing about the actual world from another, but denying that I know whether my conclusion holds in similar possible worlds. So given the discussion of doppelgangers above, we might say that abduction licenses the same conclusions *at* relevantly similar possible worlds, but not *about* them. On the other hand, it seems rather bizarre to say, “My doppelganger who saw the couple

1. From set of features S of W_A , one has license to conclude (through non-deductive reasoning) that C in W_A .

2. For any world W^* , if W^* has features S , one is warranted in concluding that C in W^* .

3. Therefore, if one is warranted in concluding that C in W_A on the basis of S , one is warranted in concluding that C is true in any world with features S .

⁶ This is in no way a careful statement of how abductive reasoning functions. Indeed, many would argue that abduction licenses something other than “pure” belief in C —perhaps an increase in credence, or a belief in C 's probability or approximate truth. While such adjustments would make matters more complicated, I do not believe they would have any significant impact on my conclusions. Indeed, I think that this argument applies to *any* plausible form of non-deductive reasoning, no matter how it is formulated. See note 5, above.

holding hands and eating ice cream should believe that they have reconciled; but I should believe no such thing.” Yet this is precisely what one *should* say if abduction were limited in this way. What’s more, it seems there may be cases in which we *do* want to use abductive arguments to draw conclusions about other possible worlds, such as in arguments for modal realism. It has even been argued that our epistemic access to modal facts is *centrally* abductive.⁷ So it is plausible that a general restriction against abductive arguments for conclusions *about* other possible worlds is unwarranted.⁸

I am genuinely uncertain what we should say about this restriction at the end of the day. In the interests of charity, then, I will assume that no such restriction exists. Of course, if it does, then Brown’s argument fails, just for different reasons than proposed below.

Here is where we stand: If we assume that abductive reasoning has justificatory force, it seems we may conclude from error theory’s being the best explanation for moral disagreement that error theory is true (in the actual world). And it seems that this bit of reasoning would work for any world that is not relevantly different from the actual world. Thus, there is a set of possible worlds—minimally, one that includes all worlds non-morally identical to our own—for which we may conclude, in each case, that error theory is true. But, of course, this is not the whole story. In order for Brown’s argument to go through, from (3) we must be able to infer:

4. Therefore, if C is the best explanation for F in W_A , one may conclude that C is necessarily true across set W_+ , which includes W_A and all worlds in set W .

At first glance, this inference seems unassailable. After all, according to (3) we have license to believe that error theory is true at each W -world. Given that what it is for a proposition to be necessary across a set of possible worlds is just for it to be true at each one, the move to (4) seems nearly trivial. But there is a suppressed premise. In order to conclude that error theory is necessary, we must conclude not only that it is true at *each* possible world, but that it is true at *all* of them. That is, from C at W_A , C at W_1 , C at W_2 , etc., we must conclude that $(C \text{ at } W_A \ \& \ W_1 \ \& \ W_2 \dots)$. In short, we must agglomerate our beliefs.

The most famous challenge to belief agglomeration is Henry Kyburg’s (1961) “lottery paradox.”⁹ Briefly: It seems that given the extraordinarily low probability of

⁷ See Biggs (2011).

⁸ My thanks to John Basl both for raising this issue and for helpful discussion on how to address it.

⁹ My thanks to Christian Coons for first noting the relevance of the lottery paradox.

any particular lottery ticket's winning, one may conclude of any particular ticket that it will not win. By agglomerating these beliefs, one would come to believe that all lottery tickets will not win, and thus that no ticket will. But, of course, one also believes (correctly) that one of the tickets *will* win. So it appears that agglomeration leads to belief in a contradiction. While there are other ways out, Kyburg rejects agglomeration, and further examples, such as Mackinson's (1965) "preface paradox," seem to vindicate this choice.

I submit that Brown has unwittingly provided us with a new and independently interesting demonstration of the problem with belief agglomeration—one that may in fact be more powerful than the lottery paradox itself. If (as suggested above) abductive arguments are not limited in any way to the actual world, then such arguments in the actual world can be applied to relevantly similar worlds. Thus, if I have license to believe that error theory is actually true on the basis of an abductive argument, it seems I have similar license to believe that it is true at any given possible world that is relevantly similar to our own (which will include, minimally, any world that is non-morally identical to this one).

All of this seems correct. And yet we do *not* have license to believe that the conclusions of abductive arguments are necessary across sets of possible worlds. The only plausible solution, I submit, is to admit that just as we may believe that each ticket will lose but not that all will, we may believe that error theory is true in each world like ours but not that it is true in all of them. This result is strange, and it is counterintuitive, but without it, Brown's argument could plausibly serve as a premise in a *reductio* of abduction itself, for abductive reasoning—indeed, I believe, non-deductive reasoning of any kind—would lead to contradiction.

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