



Ability, Foreknowledge, and Explanatory Dependence

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ABSTRACT

Many philosophers maintain that the ability to do otherwise is compatible with comprehensive divine foreknowledge but incompatible with the truth of causal determinism. But the Fixity of the Past principle underlying the rejection of compatibilism about the ability to do otherwise and determinism appears to generate an argument also for the incompatibility of the ability to do otherwise and divine foreknowledge. By developing an account of ability that appeals to the notion of *explanatory dependence*, we can replace the Fixity of the Past with a principle that does not generate this difficulty. I develop such an account and defend it from objections. I also explore some of the account's implications, including whether the account is consistent with presentism.

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1. The Problem

Many philosophers are attracted to both of the following views:

- (1) The ability to do otherwise is compatible with comprehensive divine foreknowledge. (I'll call this *foreknowledge compatibilism*.)
- (2) The ability to do otherwise is incompatible with causal determinism. (I'll call this *determinism incompatibilism*.)

I will call the conjunction of (1) and (2) *the Compatibility Asymmetry*. There is a significant tension internal to this conjunction. The very considerations usually appealed to in order to support (2) also appear to undermine (1). In particular, arguments for the truth of (2) usually appeal to something like the following principle:

Fixity of the Past (FP). An agent *S* can (at time *t* in world *w*) do *X* at *t* only if there is a possible world *w*^{*} with the same past up to *t* in which *S* does *X* at *t*.¹

Causal determinism guarantees that facts about the initial state of the universe, together with facts about the laws of nature, entail every fact about the future.² So FP, together with a similar Fixity of the Laws principle, can be used to generate an argument for *determinism incompatibilism*.

¹ See, for example, Fischer and Pendergraft [2013].

² Some philosophers simply define causal determinism in terms of this entailment.

The problem is that FP also appears to generate an argument against *foreknowledge compatibilism*. On the supposition that God is infallible, there is no world where he falsely believes that you perform a certain act. And since his beliefs (if they really constitute foreknowledge) are part of the past, there is no world with the same past in which you do otherwise than what God believed you would do. Thus, given FP, you cannot do otherwise. So, *the Compatibility Asymmetry's* problem is that FP is needed to provide an argument for (2), but FP also generates an argument against (1).

2. Possible Solutions

The traditional Ockhamist solution to this problem is to distinguish between 'hard' and 'soft' facts about the past, where soft facts about the past are in some sense temporally relational, and thus not strictly facts about the past. For example, the fact that John F. Kennedy was shot is a hard fact about the past. But the fact that Kennedy was shot 52 years before I wrote this paper is a soft fact about the past. With this distinction at hand, it is then claimed that facts involving God's beliefs about the future are soft facts and that only the hard facts about the past must be fixed.

One problem with this solution is that we lack a good account of the hard/soft fact distinction that clearly places God's beliefs in the soft category. In addition, there are plausible arguments that God's beliefs are hard facts about the past (or at least contain what John Fischer has called 'hard elements').³ At any rate, I will set aside Ockhamism and explore a distinct solution.

There is a prospect for a distinct solution. Trenton Merricks has recently defended (1) on the grounds that 'God's beliefs about what an agent will do in the future depend on what that agent will do in the future' [2011: 567]. And Michael Bergmann has suggested that the crucial difference between God's beliefs and causal determinism is that God's past beliefs are held '*because of what I'm doing now, not vice versa*'.⁴ These proposals suggest that the solution to *the Compatibility Asymmetry's* problem is to be found, not in the distinction between hard and soft facts, but rather by exploring the relationship between dependence and ability.

Let's call this approach to solving *the Compatibility Asymmetry's* problem the Dependence Solution.⁵ In order to assess the plausibility of the Dependence Solution, it will be helpful to answer several important questions. First: (a) precisely how do facts about dependence connect with facts about ability? Proponents of the Dependence Solution have yet to fully address that question. I will develop an account that analyses ability partially in terms of dependence. Providing such an account will put the Dependence Solution on firmer ground. Here are two additional points that need to be taken up: (b) which sort of dependence matters for ability? And which sort of dependence relation holds between God's past beliefs and our choices? (Proponents of the

³ See, for example, Fischer [1994] and Todd [2013a].

⁴ From Bergmann's correspondence with Fischer [2011: 222].

⁵ Other recent proponents of something like the Dependence Solution include McCall [2011] and Westphal [2011]. Of course, there is a natural way of interpreting Ockhamism on which it is a version of the Dependence Solution. Ockhamism relies on the view that at least some soft facts depend (in a certain sense) on our choices but that hard facts do not so depend. However, I am here interested only in non-Ockhamist versions of the Dependence Solution—that is, solutions that eschew worrying about whether particular facts are hard or soft and instead talk directly about dependence.

dependence solution have not yet provided an in-depth exploration of these questions.)
 (c) Why does my account of ability render *the Compatibility Asymmetry* plausible?

3. To Which Sort of Dependence Should the Account Appeal?

In order to vindicate *the Compatibility Asymmetry*, our account of ability should appeal to a sort of dependence that yields a significant difference between God's past beliefs and determinism. Not just any sort of dependence will do. Fischer argues that counterfactual dependence is not well suited to play this role [2011: 223]:

On some views of the relevant counterfactuals, if causal determinism is true and I actually perform some action X, the following 'backtracker' is true: 'If I were to refrain from X, the past would have been different all the way back'. Thus, on this sort of view of counterfactuals, there would indeed be a counterfactual dependence of the past causal facts on the behavior in question, so it would not be obvious that the relevant notion of 'because of' would be asymmetric.

I think that this line of reasoning is correct. If determinism is true, facts about the initial state of the universe or the laws of nature depend counterfactually on our choices. But the Dependence Solution relies on the claim that, unlike God's beliefs, facts about the initial state of the universe and the laws do not depend on our choices. So, appealing to counterfactual dependence is not very promising.

Fortunately, a better option is available. I suggest that the Dependence Solution appeal to the notion of *explanatory dependence*. Although explanation has sometimes been thought of as a pragmatic notion, the recent literature on dependence and grounding has brought to light an objective notion of explanation. This provides an opportunity to develop the Dependence Solution in a plausible way.

Like necessity, explanatory dependence comes in different varieties [Correia 2008]. Just as we have logical, conceptual, metaphysical, and natural necessity, we also have corresponding types of explanatory dependence. Here are some examples from the literature (where 'A because B' means 'A explanatorily depends on B'):⁶

Logical: Sam is ill or $2+2 = 5$ because Sam is ill.

Conceptual: The vase is coloured because it is red.

Metaphysical: The set {Socrates} exists because Socrates does.

Natural: Sam died because John stabbed him in the heart.

Explanatory dependence is the broad or generic notion that captures what all of these different cases of dependence (and perhaps other types of cases) have in common. This is the notion of dependence to which I will appeal in developing the Dependence Solution.⁷

⁶ These examples come from Correia [2005, 2008] and Schnieder [2006].

⁷ Philosophers who reject the idea that there is an objective notion of 'explains' or 'because' may still be able to adopt an account similar to mine. My view is that some 'because'-claims capture the objective structure of the world and that as a result we can use the terminology of 'because'-claims to develop an objective account of ability. So long as one accepts that there is an objective structure of the world, it should be possible to develop an account similar to mine using whatever terminology captures this structure.

Some might be sceptical that there is a non-gerrymandered generic notion of explanatory dependence. One might say, ‘Sure, there’s causation and metaphysical dependence, and there’s the disjunctive property of being an instance of one or the other. But there’s no such thing as generic explanatory dependence if it’s supposed to be anything but a disjunctive property. And presumably a gerrymandered disjunctive property isn’t what we should appeal to in developing an account of ability.’ But I’m not convinced by this objection. In my view, there is a unified notion of generic explanatory dependence, a unified notion of ‘making so’, of which causation, metaphysical dependence, etc. are subtypes. Consider this example. Suppose A desires that more sets exist. B creates Socrates (a causal relation). The set {Socrates} then exists because Socrates exists (a metaphysical dependence or grounding relation). It seems clear that B’s actions explain the existence of the set {Socrates}. If you doubt this, consider how A should react to B. Doesn’t it make sense for A to give B credit for making it the case that {Socrates} exists—for being an explanation of the existence of {Socrates}? But it seems that the notion of explanation at play here is the generic notion of explanatory dependence. After all, neither the causal relation nor the metaphysical dependence relation appears to run all the way from B to the set {Socrates}. Only the generic notion of explanatory dependence does so—in virtue of the presence of causation or metaphysical dependence at each link in the chain from B to {Socrates}.

4. A Partial Account of ‘Can’

As David Lewis [1976] points out, an agent has the ability to perform an act only if her performing it is compatible with certain facts. Various accounts of ability require compatibility with different facts. For example, *determinism incompatibilists* require that facts about the past and the laws of nature be held fixed in evaluating ability claims. *Compatibilists*, by contrast, claim that not all such facts should be held fixed.

My proposed account will run along the following lines. *When evaluating ability claims, we should hold fixed all facts that do not depend on the agent’s actions.* In order for it to be true that an agent can do A at t, her doing A must be compatible with all of the facts that do not depend on the act(s) she performs at t.⁸

So far, I have been using the term ‘ability’. However, talk of abilities is ambiguous between general abilities and ‘in the moment’ abilities. This is because the later notion involves opportunities as well as general abilities. The following case illustrates the distinction. Suppose that Bob is an excellent piano player who is currently tied to a chair far from any pianos. In this case, Bob has the general ability to play the piano but lacks the opportunity to play it. Following Christopher Franklin [2011], we can use the term ‘can’ so that it applies to an agent when and only when he has both the general ability and the opportunity to perform the act in question. Here is Franklin’s account of ‘can’ [ibid.: 695]:

An agent S can \emptyset at t in possible world W iff S has the [general] ability and opportunity to \emptyset at t in W.⁹

⁸ Thanks for to an anonymous referee for suggesting this way of presenting my account.

⁹ Franklin calls this account ‘semi-stipulative’, but my use of it is meant to capture a non-stipulative and pre-theoretical notion. Franklin’s formulation follows Austin [1956].

I shall presume that it is this sense of ‘can’ with which defenders of the Compatibility Asymmetry are concerned. They want to show that an agent can have both the general ability and opportunity to do otherwise despite God’s foreknowing what he will do, but that an agent cannot have both the ability and opportunity to do otherwise if his act is causally determined.

We can now give a partial account of ‘can’ that appeals to explanatory dependence. I will not attempt to give an account of general abilities. I think it should be granted that general abilities are compatible with both determinism and divine foreknowledge. Rather, I think it is promising to use our notion of dependence in order to analyse the opportunity condition. Here is my suggested account:

No Independence Account. S has the opportunity to do A at T in W iff there is a possible world in which all of the facts in W that do not explanatorily depend on S’s choice(s) at T still obtain and S does A. (Here and throughout, when I say ‘depends on’, I mean ‘at least partially depends on’.)

The **No Independence Account** arguably provides a deeper account of ability/opportunity than other accounts on offer. Incompatibilists insist that all of the facts about the past and the laws of nature need to be held fixed. Compatibilists demur. The **No Independence Account** provides a potential explanation, in terms of explanatory dependence, of why such facts should (or should not) be held fixed.¹⁰

5. Using the Account to Save the Compatibility Asymmetry

The **No Independence Account** leads to the following principle:

Fixity of the Independent Past (FIP). An agent S can (at time *t* in world *w*) do X at *t* only if there is a possible world *w** in which all of the facts in *w* up to *t* that do not explanatorily depend on S’s choice(s) at *t* hold and S does X at *t*.

In my view, the Dependence Solution can vindicate *the Compatibility Asymmetry* by endorsing the Fixity of the Independent Past and rejecting the original Fixity of the Past (FP) principle.

If we replace the original FP principle with FIP, we can avoid the problem that the Fixity of the Past created for *foreknowledge compatibilism*. So long as God’s beliefs explanatorily depend on our future choices, FIP does not yield the result that we cannot do otherwise than God believes that we will do. Furthermore, this dependence claim is plausible if we assume that causal determinism is false. Given the falsity of determinism, it appears that there are no present or past conditions sufficient to guarantee that certain future choices will be made. But, given God’s essential omniscience, it would appear that the full explanation of God’s beliefs must include something that does guarantee the truth of his beliefs. Thus, his beliefs must be explained by something located in the future, most plausibly by the choice itself.¹¹

Trenton Merricks [2009] has also suggested a line of thought which (when modified a bit) supports the conclusion that God’s beliefs depend on our future choices. Merricks endorses the two following theses [ibid.: 54–5]:¹²

¹⁰I owe this observation to an anonymous referee.

¹¹Of course, this argument will not persuade those who think that God lacks beliefs about future contingents.

¹²The designations (a), (b), and (c) are mine.

(a) God believed, a thousand years ago, *that Jones sits at t* because the proposition *that Jones sits at t* was true a thousand years ago.

(b) since truth depends on the world, *that Jones sits at t* was true a thousand years ago because Jones will sit at *t*.

From these claims, Merricks concludes this:

(c) God believed, a thousand years ago, *that Jones sits at t* because Jones will sit at *t*.

This is suggestive, but (c) does not obviously entail that God's belief depends on Jones's act of sitting. We would need to hear more about the relationship between 'Jones will sit at *t*' and Jones's act of sitting. At least for presentists like Merricks, there is a *prima facie* difficulty with claiming that 'Jones will sit at *t*' depends on Jones's future (and thus non-existent) act of sitting.

We can reformulate the argument in a way that avoids this issue. It is true *that Jones sits at t* because of Jones's act of sitting at *t*. Furthermore, God believes *that Jones sits at t* because it is true *that Jones sits at t*. (This second claim is quite plausible, given God's essential omniscience.) So, assuming that the relevant notion of dependence is transitive, God's belief does depend on Jones's act.

So, we have good reason to think that the FIP will not generate the same problem for *foreknowledge compatibilism* that FP did. Furthermore, FIP can still be used to generate an argument for *determinism incompatibilism*. This is because it is not plausible that the initial conditions of the universe explanatorily depend on our choices. Rather, it is plausible that our choices depend (at least partially) on the initial conditions of the universe. So, FIP and the No Independence Account vindicate *the Compatibility Asymmetry's* claims concerning freedom and determinism. (In order to establish *determinism incompatibilism*, I also need the claim that the laws of nature do not explanatorily depend on our choices.)

6. What Sort of Explanatory Dependence Connects God's Beliefs to Future Choices?

One might wonder what type of explanatory dependence holds between our choices and God's past beliefs. Those who accept the possibility of backward causation might endorse the view that our choices cause God's past beliefs. But I would prefer that the success of the Dependence Solution not rely on the possibility of backward causation. On my view, God's past beliefs depend metaphysically (and non-causally) on our choices.

One way to motivate the view that God's beliefs about our choices metaphysically depend on our choices is to pursue an analogy with God's beliefs in other domains. Consider God's knowledge of the existence of abstract objects. Presumably, God believes that the number 2 exists because of the existence of the number 2. However, this need not commit us to the claim that the number 2 or 'the existence of the number 2' causes God's belief. Similarly, moral realists should say that God believes that lying is wrong because lying is wrong. But they need not say that the fact that lying is wrong causes God's belief.¹³

¹³I owe this point to conversation with Trenton Merricks.

These cases suggest that there is a non-causal metaphysical explanatory relation that can hold between a particular fact and God's corresponding belief. Perhaps the most promising candidate for this particular relation is grounding. On this model, God's belief that the number 2 exists is grounded by the fact that the number 2 exists. Similarly, the proponent of the Dependence Solution should say that God's belief that I will run tomorrow is grounded by my running tomorrow.

A natural worry here is that these cases are quite different from the cases normally appealed to in order to elucidate the notion of metaphysical dependence (for example, the singleton set containing Socrates is grounded in Socrates.) Even if we accept that the notion of grounding is applicable in other cases, why should we grant that God's beliefs can be grounded by facts or events?

Here is a reply to this worry. It seems plausible that (1) God believes that the number 2 exists because the number 2 exists and (2) that this 'because' is non-causal. Given this, identifying this 'because' as an instance of the grounding relation allows us to avoid positing a new sort of non-causal explanatory relation. Of course, if some prefer to identify a distinct explanatory relation to account for this case, we could apply it to the foreknowledge case as well. The important claim here is that there is some non-causal explanatory relation that holds between God's past beliefs and future free choices.

7. Why FIP Rather than FP?

We have seen that it is useful for defenders of the Compatibility Asymmetry to replace FP with FIP. But is this enough to justify rejecting FP? After all, it is intuitive that the past is fixed. Furthermore, Fischer [2011] has argued that FP can be motivated by the claim that hard facts about the past are 'over-and-done-with'. And if FP is true, then, even if God's beliefs explanatorily depend on our future choices, we still have not solved *the Compatibility Asymmetry's* problem. In short, those who are inclined to accept the Dependence Solution need to deal with the plausibility of FP. Fischer and Tognazzini [2014: 22] press the worry in this way:

But how exactly does the dependence point in any way vitiate—or even address—the point about the fixity of the past? That is, if a hard fact about the past is now fixed and out of our control precisely because it is 'over-and-done-with', why is the dependence in question relevant? If fixity stems from over-and-done-with-ness, and over-and-done-with-ness is a function of temporal intrinsicity, both of which seem plausible, then it would seem more reasonable to conclude that even the dependent hard facts are fixed.

My view is that FP and the 'over-and-done-with-ness' claim (in so far as it is interpreted to support FP) are both intuitive because we tend to assume that the hard past is explanatorily independent of future events. Once we drop that assumption, the intuitive plausibility of FP is greatly reduced.

Imagine that you have come to believe that you are sitting in a working time machine. (Set aside the issue of whether time travel is genuinely metaphysically possible.) You believe that the machine is programmed so that, if you push the button in front of you, then you will travel to the year 1492. Furthermore, you believe that the past and the laws entail that you will travel to 1492 if and only if you push the button. Note that, by accepting the possibility of time travel, you have dropped the assumption that the past must be explanatorily independent of the future.

I claim that, once you believe that facts about 1492 depend on your choices, FP would no longer seem intuitive. If you accept FP, then you should accept that either you cannot push the button or you cannot refrain from pushing the button. After all, it is either a fact about the past that you appeared in 1492 or it is a fact that you did not. And you believe that there is no world with the same past and laws in which you push the button and do not travel back, or vice versa. (Here, I assume that you accept the *fixity of the laws* principle.) However, I do not think that this claim about your lack of options would seem true to you. Surely it would seem that you have the option to push the button and the option to refrain from pushing the button. It would not seem that the past was ‘over-and-done-with’ in any sense inconsistent with your freedom.

This case suggests that FP is intuitive only *because* we assume that the past is explanatorily independent of future events. If you came to believe that the past depends on your choices, FP would not seem true. Note that the case works even if time travel is impossible. I am relying on your mere *belief* (in the case) that the past depends on the future to establish that your *inclination* to accept FP depends on the assumption that the past is explanatorily independent of the future. No assumptions about the possibility of time travel are required.

Of course, such intuitions are not infallible and I have not established that FP is false. But I do think that reflection on such cases reveals that what may look like intuitive support for FP is really only support for FIP. Once we drop the assumption of independence, FP is not so intuitive.

One might worry that intuitions concerning ability and time travel are unreliable in general. Consider the notorious case in which Bob travels back in time with the intent of killing his own grandfather (prior to the conception of his father or mother). If Bob finds himself standing in front of his grandfather holding a gun, it will surely seem to him that he could kill his grandfather. However, it is not clear that Bob’s seeming is correct. Since there is no possible world where Bob causes his grandfather to permanently cease to exist prior to the conception of Bob’s father or mother, it is plausible that Bob cannot kill his grandfather.

Should consideration of such cases lead us to be sceptical of intuitions concerning ability and time travel in general? I don’t think so. We are tempted to reject Bob’s intuition that he can kill his grandfather because accepting it generates special difficulties. The fact that some intuitions in a domain generate difficulties is not normally a good reason to be sceptical of all intuitions within that domain. We should not reject all intuitions about value because some intuitions about value lead to the Repugnant Conclusion.¹⁴

There are two further reasons to reject the view that FP is true even if the past depends on the future. First, it seems that something that depends on my choice is not the sort of thing that can limit my options in making the choice. If FP holds and facts about the past (such as God’s beliefs) depend on my choices, then these dependent facts constrain my behaviour. But facts that depend on my choices are derivative; they are not the sort of things that can constrain my choice.

Second, and relatedly, this sort of view risks endorsing explanatory circles. In many cases, if something limits my options it thereby (partially) explains why I choose as I do.

¹⁴Recall that the Repugnant Conclusion is, roughly, that *for any population with a uniformly very high level of well-being, it would be better for some much larger population, all of whose lives are barely worth living, to exist instead*. The trouble is that this conclusion follows from very intuitive premises. See Parfit [1984].

But if we say that my choices explain God's beliefs *and* that God's beliefs explain my choices, we are left with a rather unpleasant circularity. In order to avoid this, defenders of FP would need to provide a plausible account of how God's beliefs constrain my behaviour without explaining my behaviour. It is not clear to me that such an account can be given.

Of course, cases involving counterfactual interveners (such as the Frankfurt [1969] cases) show that it is possible to limit an agent's options without actually explaining his behaviour. However, I do not think that the Frankfurt cases provide a good model for Divine Foreknowledge. The counterfactual intervener limits opportunities because he stands ready to intervene if necessary. But it is not clear why God's foreknowledge should be conceived as standing ready to prevent an agent from acting in a manner contrary to God's beliefs. Furthermore, since counterfactual interveners do explain the agent's behaviour in some other possible world, claiming that God's foreknowledge functions like a counterfactual intervener risks positing an explanatory circle in the world where God's foreknowledge does explain the agent's choice.¹⁵

Overall, I conclude that if the past can depend on the future then FP should be rejected. Thus, I think that the prospects for the Dependence Solution look promising indeed.

8. Presentism and the Dependence Solution

I endorse an eternalist theory of time. The Dependence Solution clearly fits well with eternalism. On eternalism, future choices exist and thus can (at least potentially) stand in explanatory relations with God's past beliefs. Presentists say that only present things exist. None of our future choices are part of reality. So, if God believes at t that I will choose to do x at t_2 , my choice is not around at t to explain God's belief. Given this, can presentists also endorse the Dependence Solution?

Perhaps Trenton Merricks has provided us with a presentist-friendly Dependence Solution. Recall his claim [2009: 54–5]:¹⁶

(c) God believed, a thousand years ago, *that Jones sits at t* because Jones will sit at t .

(c) has God's belief depending on 'Jones will sit at t ' rather than on *Jones's sitting* itself. So, (c) avoids commitment to the existence of Jones's future choices. However, (c) does not suffice for a Dependence Solution.

Does 'Jones will sit at t ' depend on Jones's act itself?¹⁷ If it does not, then 'Jones will sit at t ' is explanatorily independent of Jones's act. And, presumably, there are no worlds where 'Jones will sit at t ' was true and Jones does not end up sitting at t . Thus, by the Fixity of the Independent Past, it appears that Jones cannot refrain from sitting at t .

¹⁵Cases involving counterfactual interveners also show that my two points are not independent of each other. If explanatory circles are possible, then it will probably be possible for facts that depend on my choice to nonetheless constrain my behaviour. Imagine travelling back in time and becoming your own counterfactual intervener. (I owe both the point and the example to Chris Tweedt.) In my view, this gives us a further reason to reject the possibility of explanatory circles. It shouldn't turn out that derivative facts can constrain my choices. (Note that time travel might be possible even if explanatory circles are not. See Monton [2009].)

¹⁶The designation (c) is mine.

¹⁷This may seem like a strange question. One might wonder what sort of entity 'Jones will sit at t ' is and whether it is the sort of thing that could depend on a Jones's act. I need not answer these questions here. My only claim is that the dependence claim must hold in order for Merricks's account to provide a presentist-friendly Dependence Solution.

Alternatively, if ‘Jones will sit at t ’ does depend on *Jones’s sitting* then the worry for presentism returns. *Jones’s sitting* is not around 1000 years ago to explain ‘Jones will sit at t .’¹⁸ (Note that Merricks also claims [ibid.: 54] that ‘God’s having—even a thousand years ago—the belief *that Jones sits at t* depended on Jones’s sitting at t .’ This does posit an explanatory link between Jones’s act and God’s belief, but it is not clearly presentist-friendly.)

Explanatory connections between God’s beliefs and temporally distant choices may not pose any greater problem for presentists than do relations between temporally distant events in general. Some presentists (non-serious presentists) endorse the obtaining of relations between present objects and merely past, and thus non-existent, objects. Presumably such presentists could also say that merely future, and thus non-existent, choices stand in relations.¹⁹

Presentists who deny that non-existent entities can stand in relations have other strategies available. Presentists can deny that claims of the form ‘A explanatorily depends on B’ (where B is a future object or event) should be understood as positing that a relation holds between A and B. Rather, the claim should be interpreted as positing a relational property of A’s such as *depending on B*. Of course, B isn’t around to be the constituent of a relational property either. But proponents of this view could say that it is B’s essence, rather than B, that is a constituent of the property.²⁰

Or perhaps ‘A explanatorily depends on B’ (where B is a future object or event) should be interpreted as positing a relation between propositions or between properties. Proponents of this view should then interpret the Fixity of the Independent Past as requiring, not that S’s choice stands in an explanatory relation, but rather that some relevant proposition or property does so.²¹ (This sort of view might vindicate the usefulness of Merricks’s claim (c) in providing a presentist-friendly Dependence Solution.)

I do not find these presentist options appealing. I say that if a proposition or property (rather than Jones’s choice) is the bearer of the explanatory relation, then this removes Jones’s control over the situation and undermines his freedom. Similarly, if *depending on Jones* turns out to be a relational property of which Jones is not even a constituent, then it seems that he is no longer in control of the things that depend on him. Of course, presentists who are attracted to such views are unlikely to share my concerns. So, these views do appear to be live options for those attracted to both presentism and the Dependence Solution.

The forgoing has proceeded on the assumption that, if God believed ‘Jones will freely sit at $t3$ ’ at t , then (given FIP) it must have been true at t (and all times between t and $t3$) that God’s belief is explained by *Jones’s sitting*. However, the presentist could reject this assumption. The presentist could say that what matters is the explanatory relations that hold at the moment of choice. The fact that *God believed at t that ‘Jones will freely sit at $t3$ ’* may have been explanatorily independent of *Jones’s sitting* at $t2$. But that does not matter. So long as the fact *is* explained by *Jones’s sitting* at $t3$, Jones’s freedom is not threatened.

¹⁸ Alicia Finch and Michael Rea [2008] raise this sort of worry for presentists in the context of Ockhamism. See also Rea [2006].

¹⁹ For defences of non-serious presentism, see Hinchliff [1988] and Inman [2012].

²⁰ See Davidson [2003] for a presentation and critique of a parallel presentist response to the problem of relations.

²¹ See Bigelow’s [1996] parallel suggestions about causation.

This solution commits the presentist to saying that facts like *God believed at t that Jones will freely sit at t3* are explained or grounded by one sort of thing at t_2 (perhaps ungrounded propositions or brute properties of the world), and then explained or grounded by another sort of thing at t_3 (Jones's sitting). I find this 'grounding switching' claim implausible. However, some presentists may already be inclined to endorse parallel claims about other facts. For example, it is plausible that at t_3 the fact that *Jones sits at t3* is explained by Jones's sitting. But presentists may want to say that at t_4 *Jones sits at t3* is no longer explained by Jones's sitting. So, 'grounding switching' provides another live option for presentists who wish to endorse the Dependence Solution.²²

9. Todd's Objection to the Dependence Solution

Patrick Todd [2013a] has attempted to show that views similar to my Dependence Solution are implausible. He appeals to an analogy between foreknowledge and divine prepunishment. He argues that a move parallel to the Dependence Solution is implausible with regard to divine prepunishment, and that the implausibility carries over to the case of foreknowledge. (Note that Todd does not assume that divine prepunishment is in fact metaphysically possible.) He imagines that God has prepunished Jones for sitting at t by having him spend 10 hours in prison. Todd then asks how one could explain the situation to Jones. Todd considers the following answer [2013b: 628]:

Whereas you underwent certain activities ten days ago—in particular, whereas you spent ten hours in jail ten days ago—well, you have a choice about that. You have a choice about whether you spent ten hours in jail ten days ago. For, if you underwent such activities, your having undergone them depends on what you do at t . In particular, if you underwent them, you did so because you will sit at t . So don't sit at t , and then you will have never spent those ten hours in jail. Whether you spent those ten hours in jail is strictly up to you, inasmuch as it is strictly up to you whether to sit at t .

Offering this answer to Jones doesn't seem sensible. Todd claims that, if this speech is no good, then a parallel speech concerning God's past beliefs is also no good. But much of the implausibility of this speech is explained by claims that proponents of the Dependence Solution need not endorse.

First, note that a natural way for Jones to take this advice is 'I didn't like spending time in jail, so for that reason I should refrain from sitting at t .' And, of course, it is impossible for Jones's punishment (or mental states caused by his punishment) to be a reason he acts on in successfully avoiding the punishment. There is no possible world where your undergoing A explains your avoiding A. Todd notes a similar concern, and he claims that 'it would be unacceptably *ad hoc* [given the answer above] to prohibit this fact from being used by Jones in his practical reasoning about what to do' [ibid.: 629 n.7].²³ But if there is no world in which Jones performs a particular act for a particular reason, then it does not seem *ad hoc* to say that he cannot perform that act for that reason. Just as I'm inclined to say that one cannot travel back in time and kill one's own grandfather even if time travel is possible, I also say that Jones's punishment cannot be a reason he acts on in successfully avoiding the punishment.

²²Thanks to Andrew Moon and Kenny Boyce for helpful discussion here. See Moon [2008] for a discussion of related issues.

²³The worry to which Todd is responding may be a slightly different worry than the one I raise here.

Second, if Jones's prepunishment depends on his future act of sitting we might find ourselves with an explanatory circle. Events like spending 10 days in jail tend to have a significant causal impact on the course of a person's life. It is hard to see how Jones's choice to sit at t could happen after his time in jail without being causally dependent on it. This may well be impossible. So (given that explanatory circles are impossible), the case may be impossible.

Third, the answer puts Jones in a (further) puzzling state. If he accepts the answer, he knows (or at least believes) that (a) he was in jail and that (b) if he was in jail then he will sit. So he must now deliberate about whether to sit while already knowing that he will in fact sit. Deliberating about whether to \emptyset while already having occurrent knowledge that one will \emptyset is plausibly thought to be impossible.²⁴ If such deliberation is impossible, then informing Jones of his circumstances renders him unable to deliberate about whether to sit.

With these three worries in mind, consider the analogous speech (concerning foreknowledge) that Todd offers us [ibid.: 635]:

Whereas God was in a given mental state MS one hundred years ago—well, you have a choice about that. You have a choice about whether God was in that mental state ... For, if God was in that mental state, God's having been in it depends on what you do at t . In particular, if God was in MS, God was in it because you will sit at t . So don't sit at t , and then God will never have been in MS, and so never believed that you would sit at t . Whether God had that belief is strictly up to you, inasmuch as it is strictly up to you whether to sit at t .

Todd says, of that speech [ibid.: 628],

But surely this is implausible. Just as it is highly implausible that one could have a choice about whether one was in the local jail ten days ago, so it is highly implausible that one could have a choice about whether someone's mind was in a certain (nonrelationally determined) mental state one hundred years ago

I agree that the speech seems a bit strange (although it doesn't seem as metaphysically fishy as the previous one). Let's consider how the three concerns that I raised about the prepunishment answer apply here.

The *acting on an impossible reason* worry still arises (although perhaps in diminished capacity). One could still take the advice to Jones as 'You don't like it that God was in MS? Then don't sit at t and God won't have been in MS.' But since God's having been being in MS is not clearly bad (unlike spending time in jail), it is not so clear that Jones will be looking to avoid God's having been in MS. So, this way of taking the advice is less obvious.

The *explanatory circularity* worry is also present, albeit less pressing. If we presume that God's being in MS has not causally affected Jones's life in any problematic way, then the only threat of circularity arises because Jones is told that he is in MS. If he were told that God is in MS because God is in MS, and he sits at t because he was told that God is in MS, then we would have an explanatory circle. But if Jones does not sit at t because he is told that God is in MS, then a circle is avoided.

The *deliberating about \emptyset -ing while knowing that you will \emptyset* worry is just as pressing here as it was in the prepunishment case. After hearing the speech, Jones knows that God was in MS and that God's having been in MS depends on Jones's sitting. So, he

²⁴Philosophers who have rejected the possibility of such deliberation include Ginet [1962], Goldman [1970], and Kapitan [1986].

knows that he will sit at t . It is plausible that Jones's knowledge renders him unable to deliberate about whether to sit.

So, proponents of the Dependence Solution can explain the lingering implausibility of the second speech by appealing to the same three factors that explain the implausibility of the first speech. Both speeches suggest or endorse problematic assumptions that the proponent of the Dependence Solution need not endorse. Here is the sort of speech that proponents of the Dependence Solution must endorse (spoken to someone other than Jones):

God was in MS one hundred years ago. God was in MS because of Jones's sitting at t . At t Jones will be able to refrain from sitting, so Jones can perform an act such that, if he were to perform it, God would not have been in MS. But, of course, we know that Jones will not perform that act. We know that Jones will sit at t because we know that God was in MS.

This speech does not strike me as being nearly as implausible as are the answers offered to Jones above. Perhaps there is still something strange about it. But then metaphysics often calls for a little strangeness.

One might worry that I avoided including in the above speech the claim 'Jones has a choice about whether God was in MS'—and that this claim sounds quite strange. I did not include this claim in my speech because I am unsure of the truth conditions for 'X has a choice about whether p.' But suppose that 'X has a choice about whether p' is true just in case (1) X can perform an action a_1 such that, if X did a_1 , p would have been true, and (2) X can perform an action a_2 such that, if X did a_2 , p would have been false.²⁵ If something like this is right, the proponents of the Dependence Solution will have to endorse claims like 'Jones has a choice about whether God was in MS.'

But I don't think that this is so bad. Consider again the case in which you believe yourself to be sitting in a working time machine. Assuming that you accept that (1) and (2) provide the correct account of *having a choice about*, would it be implausible to say that you have a choice about whether you appeared in 1492? I don't think so. Once we make the assumption that backward dependence is possible, such claims seem rather plausible. Similarly, it does not seem crazy to accept that Jones has a choice about whether God was in MS (once we build in the relevant dependence claim and the relevant account of *having a choice about*).

So, I conclude that the implausibility of Todd's imagined speeches to Jones is primarily explained by features that do not carry over to the claims that Dependence Solution proponents must endorse. The Dependence Solution survives as a plausible option for philosophers attracted to *the Compatibility Asymmetry*.²⁶

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²⁵I have my doubts concerning this way of understanding 'X has a choice about whether p.' In particular, it seems that there may be an epistemic component to the notion.

²⁶Thanks to Ben Arbour, Justin Coates, Jimmy Doyle, Chris Franklin, Ross Inman, Jonah Nagashima, Michael Nelson, Garrett Pendergraft, John Perry, Michael Rea, Bradley Rettler, Daniel Rubio, Amy Seymour, Chris Tweedt, Dean Zimmerman, two anonymous referees for this journal and two editors for this journal. Thanks also to audiences at the Minds: Human and Divine Munich Summer School, the SCP, the Pacific APA, the UC Riverside agency writing workshop, the Notre Dame CPR discussion group, and the Rutgers philosophy of religion reading group. Extra-special thanks to Kenneth Boyce, John Martin Fischer, Andrew Moon, and Patrick Todd.

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