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# DIVINE OMNISCIENCE AND THE FATALIST DILEMMA

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By
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DIVINE OMNISCIENCE AND THE FATALIST DILEMMA

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF PHILOSOPHY

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This work is dedicated to my mother

PRISCILLA JOHNSON.

It was only through her tireless proofreading efforts

that this dissertation was possible.

It was only with her unconditional love and unwavering encouragement

that my education was possible.

My main hope is that she is proud.

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# DISSERTATION ABSTRACT

## DIVINE OMNISCIENCE AND THE FATALIST DILEMMA

Arguments against our free will pose a serious problem. Although there are not very many philosophers who call themselves fatalists, quite a few are convinced that fatalism follows from common assumptions. Assuming that most believe themselves to be free, identifying ways to avoid the conclusion of such fatalist arguments is quite an important task. I begin by dealing specifically with theological fatalism. I present many versions of theological fatalism, but come to the conclusion that only one version constitutes a genuine problem. That version, I argue, is reducible to a deeper fatalist dilemma that follows from assumptions so common that it must be faced by even the atheist: the mutually incompatibility of human freedom, *the principle of alternate possibilities* and *bi-valance.* After considering other objections to my argument, I conclude that the only way to avoid the fatalist conclusion is to either deny *the principle of alternate possibilities* or deny *bi-valance.* I argue that, although each option is somewhat problematic, denying bivalence is the more defensible of the two options.

# Chapter 1

# My Method and Thesis

### 1:1 – Fatalism

If nothing else, persons believe themselves to be free. In fact, it might be impossible for a person to believe otherwise. As Van Inwagen (1998) suggests in his article "The Mystery of Metaphysical Freedom":

> "Whether we are free or not, we believe that we are—and I think we believe, too, that we know this. We believe that we know this even if … we also believe that we are not free, and, therefore, that we do not know that we are free." (p.73)

Each person also believes free will to be possessed by everyone else. Many, if not most, actions performed by persons are assumed to be the result of free decisions made by those persons.

Fatalist arguments, however, suggest otherwise.

The term "fate" is used in many different ways. Some might suggest that the Kennedy assassination was "fated." Two lovers might suggest that they were fated to meet. Therefore, "event X was fated" could mean many things—everything from "X was caused to occur by God" to "some human person arranged things to make sure that X would occur." But none of these are how philosophers use the term and none will be sufficient for our purposes.

"Fatalism is the thesis that whatever happens must happen; every event or state of affairs that occurs must occur, while the nonoccurrence of every event and state of affairs is likewise necessitated." (Bernstein (2002); p 65 in Kane (2002)). Specifically, I shall say, "event/state of affairs X is fated IFF X is an event/state of

affairs that occurs, and X's non-occurrence is impossible." Additionally, I shall label arguments with the fatalist thesis as a conclusion "fatalist arguments." Since it is generally accepted, and quite intuitive, that decisions cannot be necessitated if they are to be free, fatalist arguments threaten free will. If our unavoidable belief that we are free is to be justified, these arguments must be defeated.

Fatalist arguments come in many forms, but there are two basic types: logical/theological and physical (*i.e.,* physical deterministic arguments). The two types of arguments differ in the following way: Deterministic arguments suggest that, since the beginning of the universe, every event/state of affairs in the entire history of the universe[1] has been causally determined to occur. According to determinism, every momentary physical state of the universe is the immediate cause of the subsequent momentary physical state. In fact, according to the determinist, given the physical laws of the universe, any given physical state of the universe can and will cause only one physical state: the state that follows it. In this way, every event in the history of the universe is causally rooted in the first event of the universe and determinism offers a causal explanation for why every event is necessitated to occur as it does. Given the initial condition of the universe and the physical laws, it is physically impossible for things to turn out differently than they do. Conversely, logical/theological arguments do not offer a causal explanation for why the events that occur, occur necessarily. They simply maintain that uncontroversial logical/theological facts allow us to deduce this conclusion without offering up a causal explanation for this conclusion.

[1] except maybe the very first one—if there was a first one

Both logical/theological and deterministic arguments most commonly take, what I shall call, a "futuristic form." The futuristic forms of the arguments bypass the task of directly arguing for the necessity of all events (a task undertaken by comprehensive fatalist arguments), and simply conclude that all future events that will occur after the argument is tokened, will occur necessarily. Deterministic arguments suggest that present/past physical facts causally entail that there is only one possible future; logical/theological arguments suggest that present/past logical/theological facts entail that there is only one possible future.

The "futuristic form" is the most common form of fatalist argument and I will be dealing primarily with this form; but futuristic arguments can be easily converted into comprehensive ones. To do so, one need simply to add to them the assumption "for every given event, there was a time at which it was future" and the conclusion "therefore, every event that occurs, occurs necessarily." Clearly, if futuristic arguments do not work, one cannot prove that the future is fated and comprehensive fatalist arguments fail; additionally, if futuristic arguments do work, since every event was future at one time, a comprehensive argument and conclusion logically follows. This bi-conditional relationship between the success and failure of futuristic and comprehensive fatalist arguments allows us to not be limited by the fact that we will be dealing only with futuristic fatalist arguments; any conclusion about them can be cross-applied to comprehensive fatalist arguments as well.

Other than arguing for the compatibilism of determinism and free will or arguing against a deterministic picture of the universe itself, there is not much one can do to counter the determinist fatalist arguments. If the world is deterministic, and

the classic (non-compatibilist) definition of free will is correct, then we are not free—end of story. But arguments against logical/theological type fatalist arguments are much more varied and complicated. For this reason they are more interesting and in this work I will deal mainly with logical/theological fatalist arguments. (However compatibilist definitions of free-will, will be discussed in the last chapter, section 6:2.2.1.)

Since most philosophers believe that humans are free, and the fatalist conclusion would clearly seem to be false if we are free, there are not many fatalists in the philosophical community (or in any community for that matter). But what makes logical/theological fatalism so threatening is that there is agreement that the fatalist conclusion does seem to follow from seemingly uncontroversial logical/theological facts. Of course, since most are not fatalists, most believe that this "seeming" is illusory; there has to be *something* wrong with logical/fatalist arguments. What this "something" is remains unclear. But most still believe that it must be possible to find a way to avoid the fatalist conclusion of such arguments. The task of this dissertation is to do just this: to define exactly the logical/theological argument and specifically identify what one must do (believe/give up believing) if one is to reject the fatalist conclusion of logical/theological type arguments.

I begin this task by considering the most common and intuitive futuristic form of theological fatalism—the one that most convincingly deduces from theological facts that all future events will occur necessarily. I will then show that the only severe version of this argument is reducible to logical fatalism and this realization will reveal the deepest fatalist dilemma of all. We will then see how one can avoid

the fatalist conclusion. I will say more about how I will accomplish this below (section 1:5), but first we must discover exactly how fatalism threatens free-will.

### 1:2 – Free Will, PAP and Now-Necessity/Possibility

#### 1:2.1 – Free Will

I have so far assumed that the incompatibility of fatalism and free will is obvious. The fact that they do seem to be incompatible, coupled with the fact that most believe in their own free will, is why most reject fatalism. But, in order to accomplish our ultimate goal, we have to understand exactly why fatalism and free will are incompatible. To do so, an examination of a necessary condition of free-will is required.

#### 1:2.2 – PAP

The classic (and very intuitive) statement of a necessary condition for moral responsibility is the "principle of alternate possibilities" which states that *persons are morally responsible for what they have done only if they could have done otherwise* (Classic PAP). However, as Kane (2005) points out, "Many philosophers actually define free will as the kind of freedom that is necessary to confer moral responsibility…" (p. 80); consequently it is often assumed that *persons freely do what they do only if they could have done otherwise* (AP). As a result, even though the principle of alternate possibilities was first an articulation of a necessary condition for moral responsibility, Classic PAP and AP are often conflated and even confused. Since Kane's suggestion is right and there is a bi-conditional relationship between AP and Classic PAP, I take the effort to keep them distinct to be trivial. Consequently, in

this dissertation the term "PAP" will be utilized generally to refer to a statement of the necessary conditions of free will (instead of moral responsibility). More precise articulations of the principle will be given below, and throughout the dissertation.

For the purposes of this work, and for simplicity, reference to a hypothetical person named Joe shall be made. I shall speak of Joe's freedom, decisions, and actions, and assume that Joe will be alive, awake, and acting tomorrow. Since what actions Joe will perform tomorrow are unknown, but Joe will do something, let us take some action he will perform tomorrow and call it "X." With these assumptions in place I will precisely state PAP as the following:

> PAP: In order for Joe to freely decide to do X it must be possible for Joe to not decide to do X.

PAP is usually thought of as being in line with our intuitions. If it is impossible for Joe to do anything but decide to do X, it certainly does not seem that, when he decides to do X, he is doing so freely. Even though Joe decides to do X, it must at least be possible for Joe to not decide to do X, if he is to decide freely.

There are two things to note about this version of PAP before proceeding.

First, a number of readers at this point are probably wondering why I wish to utilize PAP at all because many assume that Frankfurt (1971) has already shown PAP to be false. But I have very carefully selected PAP's wording. Frankfurt counter examples supposedly show that Joe can be free even if Joe cannot "decide otherwise." But the above version of PAP does not suggest that being able to decide otherwise is

required for free will. Instead it suggests that the possibility of Joe not deciding as he will is required if Joe is to be free. Consequently, Frankfurt-style counter examples do not falsify the above principle. Even if Joe were implanted into a Frankfurt counter example, it would still be possible for Joe to not decide to do X, even though he could not decide to do otherwise. (This is because, in such an example, if "Black's device" activates Joe will not decide anything at all—and the possibility of Black's device activating is real in any Frankfurt-style example).

The reader may be unconvinced at this point and the unconvinced reader should know that I give a full explanation of the above argument in Chapter 6 (section 6:2.1); however, since a version of PAP is classically utilized in fatalistic arguments, it will be useful for all readers[2] to assume the truth of the above PAP for arguments sake and save the debate about its truth until chapter 6. Ultimately, giving up PAP will be an option for avoiding the fatalist conclusion, but doing so will have its consequences and I will argue that it is not the preferable option.

The second thing to note is this: PAP is (and in fact most versions of the principle of alternate possibilities are) ambiguous. It suggests that not deciding to do X must be "possible" but does not identify any particular kind/type of possibility. There are a number of different definitions for the word "possible" each coinciding with a different modality. Consequently, PAP as expressed above is ambiguous, and there are a number of different *possible* articulations of PAP (each using a different definition of "possible"). I will present a number of them before this work is done.

[2] Some readers may at this point be confused because they are unfamiliar with Frankfurt counter examples. Don't worry. I give a full explanation before I explain the above argument in chapter 6.

When I do not have a specific kind/type of modality in mind, I will notate the use of "possible" and "necessary" with an "*" (*e.g.,* possible*).

**1:2.3 – Now-Possible/Necessary**

I will avoid any articulation of the necessary conditions for free will that suggests that determinism is compatible with free will. Such articulations will suggest that Joe can still act freely, even if all of his actions (and his failure to not decide to act as he will) have been physically determined to occur since the creation of the universe. Of course this sounds perfectly acceptable to the compatibilist, but for anyone who is a compatibilist, fatalism presents no dilemma anyway. On such a view, all our actions could occur of necessity but still be free. But since (I assume) most of us are not compatibilist (we do not think a deterministic universe is one in which we are free) I will avoid such definitions.[3]

Given a "liberal" enough definition of "possible," one might be able to articulate a compatibilist version of PAP, but clearly I will want to avoid such articulations and thus avoid such definitions of "possible." To avoid such articulations, I suggest a revised PAP—what I shall call "PAP*."

> Where: "it is now-possible* that X" reads "it is possible*, compatible with the actual past, the laws of nature and the laws of logic, that X occur."

> PAP*: Joe freely decides to do X only if it is[4] now-possible* for Joe to not decide to do X.

[3] I will however consider compatibilist definitions of free will in chapter 6.
[4] It is important to note that the "is" here is in the present tense.

It should now be clear why fatalism is incompatible with free will. If fatalism is true, Joe deciding to do X necessarily* occurs, and thus it is not now-possible* for Joe to not decide to do X, and thus Joe is not free.

### 1:3 – Divine Omniscience and Theological Fatalism

The first focus of this dissertation will be theological fatalism. Simply put, theological fatalism argues that God's existence is incompatible with free will. More specifically, it suggests that divine infallible foreknowledge (a property that is seemingly necessarily possessed by God due to his omniscience) and human free will are logically incompatible.

#### 1:3.1 – Classical Divine Omniscience

Very simply put, the classical conception of divine omniscience suggests that "God knows everything." However, this classic conception might overstep its bounds. Omniscience, by the technical philosophical definition, is in fact defined in the following way: A being is omniscient IFF that being knows (justifiably believes) everything that is true and does not believe anything that is false. Those of us who are more philosophically minded realize that the classical definition and the technical philosophical definition are not equivalent. Believing everything that is true would not necessarily include having infallible beliefs about *everything.* There might be some things about which there is nothing true and if there is, an omniscient being could not be said to know them and thus could not be said to "know everything." But at any rate, the technical philosophical definition is not specific about what an omniscient being knows. One must make an argument with a definitive conclusion

regarding what is true and what is false—and perhaps what lacks truth value—before one would really be able to establish what an omniscient being could know or not know.

But regardless of the philosophical definition of the term "omniscient," classically conceived, the definition of *God's omniscience* is far more specific and inclusive. The classic inclination to attribute to God every possible perfection has made it seem that suggesting there is anything that is "unknowable by God" is nothing short of blasphemy; "*God knows everything about everything, pure and simple,"* the classic theologian might suggest, "*…if he did not, he would not be the greatest conceivable being!"* Certainly, classically conceived, God's omniscience includes complete and exhaustive knowledge of the past, present *and the future.* And in fact, the suggestion that God does have knowledge of the future is supported by popular readings[5] of "prophetic" biblical texts in the Old and New Testaments and also coincides with most people's beliefs about God's knowledge of how their life will turn out.[6] Most precisely articulated, classically conceived, God's omniscience includes, for every proposition about the past, present, or future, knowledge that it is true or knowledge that it is false. And it is for this reason that divine infallible foreknowledge is classically attributed to God: the classical conception of divine omniscience includes God's possession of infallible beliefs about the future.

I will rely on the classic conception of God's omniscience to generate the theological fatalist dilemma for two main reasons: (1) The classic conception of God's omniscience is what is generally accepted (that is why it is classic) and (2) it is

[5] I intend for the phrase "popular readings" to refer to how most people (including non-academics) read these texts.
[6] The open theist would challenge this claim. I will discuss open theism in chapter 6 (section 6:1.4).

traditionally what is used to generate the theological fatalist dilemma; God's foreknowledge of the future, which he is supposed to have because of his complete and exhaustive knowledge of the past, present, and future, is exactly what supposedly stands in contradiction with human free will.

**1:3.2 – The Problem of Ambiguity**

What has happened in the history of theological fatalism is that equivocation on "possibility/necessity" has produced debates on the topic that are useless. One philosopher will not bother to define the kind of possibility they use as they explicate the problem, another will do the same when responding to their argument but have a different modality in mind, leaving us with a debate full of equivocation and no conflict.

Alston (1985) points to a perfect example of this very phenomenon. He notes that Pike's original formulation of the argument only works given a "libertarian" definition of free will and possibility. Pike's argument concludes that it is impossible, given a libertarian definition of "possible," for one not to do X if God foreknows that one will do X. But Plantinga and Saunders, when responding to Pike's argument, "miss the mark" by assuming a "compatibilist" definition of possibility and thus a compatibilist notion of free will as they argue that it is still "*possible"* to not do X even given Pike's argument. According to Alston, Plantinga was suggesting that "X is possible" would be true even though the occurrence of X was incompatible with the actual past, (*e.g.,* even if X was determined to occur by past events); but Pike was suggesting that "X is possible" could not be true if it was incompatible with actual past facts.

Of course, I already modified PAP to discount compatibilist definitions, but what Alston teaches us is that, when dealing with theological fatalism, equivocating on "possible" is a detrimental but easy mistake to make. What we wish to discover is a severe version of theological fatalism, but since there are multiple definitions of "possible" and theological fatalism uses that term extensively, there are many different versions of theological fatalism, and we will have to consider many to reach our goal. But, for any given version that we consider, since equivocation is such a fatal mistake, if we do not want that version to be falsified before we even begin to consider it, we will have to be consistent in our use; *i.e.,* we will have to use the same definition of "possible" throughout the argument.

To accomplish this will require care. I shall consider different versions of the theological argument (one at a time) by considering one modality at a time. I will only use that modality's corresponding definition of "possible" as we articulate that version of the argument.

But before I move on to doing this, it will be required to examine the "standard" version of the problem. As I articulate the standard version of the argument, I will not have a particular modality in mind, thus (as suggested above) I will denote the use of the term possible with an "*."

**1:3.3 – The Theological Fatalist Argument**

Theological fatalism has a long history. In recent history it was re-popularized by Pike (1965). The clearest version of the problem and also the clearest consideration of its classic "solutions" is given by Zagzebski (1991). Consider a

slightly modified version of Zagzebski's rendition of the theological fatalism dilemma, with an explication of each premise.

Call some action that Joe will to decide to do tomorrow action X.

1) Joe freely decides to do X tomorrow only if it is now-possible* that Joe not decide to do X tomorrow.

This is motivated by, and in fact is just a restatement of the PAP*. The kind of non-compatibilist free-will articulated here is called "libertarian free will."

2) All past events are now-necessary*.

Of course, I do not have a specific modality in mind here, but the intuitiveness of this premise is supposed to be bolstered by our intuition that the past is necessary in some sense; that once an event has happened (and thus is part of the actual past) there is nothing one can "do about it." Clearly any modality that will produce a severe theological fatalist argument will have to suggest a definition of "necessary" that coincides with of our assumptions regarding the fixity of the past. (We will discuss many options for such modalities in length).

3) God believed yesterday: "Joe decides to do X tomorrow."

This follows from the classical conception of God's omniscience and the standard definition of knowledge. Simply put, since God knows everything, whatever it is that Joe will do tomorrow, God believed yesterday that he would do it.

4) It is now-necessary* that God believed yesterday: "Joe decides to do X tomorrow."

Since God's beliefs are past events, this follows from 2 and 3.

5) God can have no false beliefs; it is now-necessary* that "if God believes P, then P is true."

This follows from God's essential omniscience. God not only is all-knowing, but could not be otherwise. It is logically impossible that God have false beliefs, so clearly it is "now-necessary*" that if God believes something, that thing is true.

6) It is now-necessary* that that Joe decides to do X tomorrow.

This is deduced from 4 and 6. This deduction utilizes, what Zagzebski and others have called, a transfer of necessity principle (TNP). Formalized, TNP's look like this: $\Box P, \Box(P \supset Q) \therefore \Box Q$ In the case of the argument above, the utilized TNP would like this: $\Box^* P, \Box^*(P \supset Q) \therefore \Box^* Q$. I will discuss TNP's at length in chapter 3.

7) It is not now-possible* that Joe not decide to do X tomorrow.

If the occurrence of some action is now-necessary, then its non-occurrence must be now-impossible.

8) Joe cannot freely decide to do X tomorrow.

This follows from 1 and 7.[7]

At first glance, the argument above looks valid. But since "possible*" has no exact definition here, viewing the argument as valid would be inaccurate. The argument above is actually only a model for producing other versions of the argument. However, all of the standard moves made in this model argument are good ones; the validity of each version of the argument will actually turn on whether or not that version's kind of "necessity" transfers over entailment—*i.e.,* each version's validity will turn on whether or not that version's TNP is valid. I will wait until I axiomatize a kind of necessity that does transfer over entailment to demonstrate that every other move made in the argument is valid. I will do this by formalizing the argument into predicate logic and demonstrating its formal validity. (I will do this in chapter 2, section 2:3.3.2.) Once I have done so, it will be clear that whether or not any version of theological fatalism truly is valid will depend on what definition of

[7] To preserve validity, it will have to be assumed that the argument is never tokened close to midnight nor is it tokened as one approaches the International Date Line. Clearly, if this were the case, the referent of "tomorrow" and "yesterday" would shift, making the argument technically invalid. I assume that the reader can ignore such nuance for the sake of simplicity.

"necessity/possibility" we have in mind; if it actually transfers over entailment (i.e., if that version of the argument has a valid TNP) the argument will be valid, if it does not the argument will not be valid.

Of course, if a version has false premises, its validity will do it no good, and if we can discover a false premise first, it will eliminate the need to test for validity. This being the case, not until we have established the truth of each premise (at least up to the fifth premise, before TNP is utilized) will we even consider questioning that argument's version of TNP.

**1:3.4 – Clarification of the Theological Fatalist Argument**

In short, the theological argument suggests that for Joe to be free there must be more than one possible future. But if God has already had infallible beliefs about the future, there is only one possible future. Thus there is nothing else Joe could do but make the decisions that God has already believed that he will make. Consequently, when Joe makes the decision he will make tomorrow, it cannot be that he is making it freely.

It must be noted that the argument is not suggesting that Joe is not free because God's beliefs are the cause of Joe's decision. It is not suggesting that God or God's beliefs cause Joe's decisions or actions in any way. What it is suggesting is that Joe cannot be free because the future is fixed.

However, the argument does not explain the fixity of the future; it does not point to what makes the future fixed. It just points out that we are able to deduce, from the fact of God's unchangeable infallible fore-belief, that the future is fixed—that there is only one possible future. From this it deduces that free decision is

incompatible with God's unchangeable infallible fore-belief. (To get to the root of the problem, we will have to identify the explanation for the fixity of the future; I shall turn to this in chapter 5 (section 5:2).)

Obviously this version of the argument is incomplete. Until we place a specific definition of "possible*/necessary*" into the argument, we will not even be able to test the premises for truth, much less truly understand exactly that to which the argument amounts. However, it should be clear what task we must undertake if we are to find a severe version of the argument. We must "start down the list of modalities," articulating each modality and considering each one's definition of "possible/necessary," putting that definition into the argument (for "possible*/necessary*"), and then testing that "version" of the argument for intuitively true premises and validity. In short we will need to "test" each modality to see if it produces a severe version of the theological fatalist argument. And of course, as Alston taught us, if the argument is to be valid, we cannot equivocate; as we test different modalities, we must use that modality's definition in every premise of that particular version of the argument.

But doing all of this will not prove too difficult. Fortunately, we will not need to test every modality. We will be able to remove a few "all at once," and the failure of some modalities will give us clues regarding the kinds of characteristics the appropriate modality will have. This will help us in figuring out the "shortest path" to a severe version of the dilemma.

The testing of modalities will begin in the next chapter, but before I move on, as a road map to the rest of this work, I will explicate exactly what this "modality testing" will reveal.

**1:5 – What we will discover**

As I stated above, the goal of this dissertation is to define exactly the logical/theological argument and specifically identify what one must do (believe/give up believing) if one is to reject the fatalist conclusion of the logical/theological type arguments. As we "test modalities"—*i.e.,* plug in different definitions of the word "possible" and "necessary" into the theological fatalist argument—to accomplish this goal we will discover a number of things. First of all, none of the standard/axiomatic (alethic or non-alethic) modalities will work to produce a severe version of the argument (section 2:2). This will not be that surprising given that the classic ways of conceiving of theological fatalism do not use such modalities. But what will be surprising is that the classic ways of articulating the theological argument will not be severe either. Normally, people conceive of theological fatalism in terms of "changeability" (section 2:3) or "causability," (chapter 3) but such modalities will not work to produce a severe theological fatalist argument.

But this will not show the theological argument to be un-severe because (as we shall discover) the *modality of actualizability* <u>can</u> be used to produce a severe version of the theological fatalist argument (Chapter 4). And once this argument is examined, it will be clear why divine foreknowledge is incompatible with free will; we shall discover that divine foreknowledge is incompatible with free will because it

entails a temporal ontology that is incompatible with free will (*i.e.,* because it entails that the future is "already written").

But this temporal ontology will not be uniquely entailed by foreknowledge. The simple fact of prior truth—the fact that all propositions about the future are true or false—will entail this same temporal ontology. And thus, we shall discover, the same fatalist conclusion can be derived by a logical fatalist argument—one that assumes neither God's existence nor the necessity of the past. In other words, we shall discover that free will, as defined by PAP, is also incompatible with prior truth. And in fact, we shall discover that theological fatalism is actually reducible to logical fatalism; it is because classical omniscience (classically conceived) entails prior truth that it entails a temporal ontology that is incompatible with free will. (Section 5:2)

Since the fact of prior truth is entailed by the principle of bivalence (a fundamental axiom of logic), the fatalist conclusion will not be easy to avoid. To do so, one only has two options: either find an acceptable way to give up the principle of bivalence (section 6:1) or give up PAP (section 6:2). We will see that neither option is easy, but that the former is preferable and defendable.

In short, the thesis of this dissertation can be articulated as such: We have been thinking about theological fatalism "all wrong" for a very long time. Classic omniscience (and the foreknowledge that is entailed by it) is not incompatible with free will because God's past beliefs are unchangeable/un-causable. Classic omniscience/foreknowledge is incompatible with free will because such knowledge entails (in fact requires) that the future is already written—God can't have knowledge

of the future, if the future is not "there"[8] for God to know about it. Since prior truth also entails that the future is written—there can't be prior truth about a future that there is nothing true about—but the principle of bivalence commits us to prior truth, there are only two ways out of the fatalist conclusion: either accept that an already written future is compatible with free will (*i.e.,* deny PAP), or deny the principle of bivalence by denying prior truth to avoid an ontological commitment to an already written future.

Now that we know where we are going, let us begin the journey by testing modalities.

[8] if it does not have positive ontological status

# Chapter 2

# Axiomatic Modalities and Changeability

### 2:1 – The Roadmap

Given the revelations of the last chapter, to discover a severe version of the theological dilemma, we clearly need to begin by "testing modalities." Testing a modality will consist of defining it, discovering and understanding the appropriate definition of "possibility/necessity" given by that modality, plugging that definition into the theological argument, and testing that argument for soundness. To be extremely thorough, we would have to individually test each modality on the "modality list." Obviously such a task would be quite time consuming. Fortunately, extreme thoroughness is neither desirable nor required. We will be able to take a short cut through the modality list to discover the modality that produces a severe theological argument (although we shall not discover it until chapter 4). Our journey will look like this:

The place to begin is with standard axiomatic modalities. Such modalities are consistent and have valid TNP's so if using a particular axiomatic modality also produces an argument with true premises, our search for a severe version would be over. If they do not work to produce a severe version (which they do not) we will then be required to turn to "non-standard" modalities. Non-standard modalities will actually help us in articulating versions of the argument that are closer to capturing that to which the argument is commonly assumed to amount. But considering such

modalities will produce complications; we will have to axiomatize them ourselves, carefully examine their TNP, and also closely examine their consistency.

We will ask and answer the following two questions.

- Is there an already axiomatized (standard) modality that can generate a severe version the argument?
- Is there a non-standard modality that is consistent and can generate a severe version the argument?

The next section (2.2) will reveal that the answer to the former question is "no." No standard modality will produce a severe version of the theological fatalist argument because such arguments will have a false second premise. The effort to answer the second question will extend into the fourth chapter. (There we will discover that there is a nonstandard modality that is consistent and can generate a severe version of the argument.) This effort will begin in section 2:3, which reveals that the "common" non-standard modality used to generate the theological fatalist argument (the modality of changeability) actually generates an unsound version. It will be revealed that such an argument's first premise is false.

**2:2 – Axiomatic Modalities**

One might think that that kind of modality necessary to produce a severe version of the argument is one that is already axiomatized. However, no such modality will be sufficient to produce a severe version of the theological argument.

### 2:2.1 – Non-Alethic Modalities

Non-alethic modalities are among the axiomatized modalities, but they will not produce a severe argument. Non-alethic modalities are normally utilized to express statements about moral obligation and permissibility. Theological arguments utilizing such modalities would make strange claims about the past being morally obligatory (in their second premise) and are clearly useless; their second premise would be false.

### 2:2.2 – Alethic-Modalities

Alethic modalities are the modalities with which philosophers are usually concerned. Such modalities express the following kinds of necessity/possibility: logical, analytical, conceptual, metaphysical, physical, etc. I will assume that the reader has a basic understanding of these modalities. Whether or not a version of the theological argument that utilizes one of these modalities is severe turns on whether or not such an argument has true premises. An examination of the plausibility of the first and second premises of such an argument under such an understanding follows.

Recall that the first premise (as stated in the last chapter) is:

(1) Joe freely decides to do X tomorrow only if it is now-possible* that Joe not decide to do X tomorrow

On any such formulation, premise (1) will be quite plausible. If not deciding to do X is now-impossible, either logically, analytically, conceptually, metaphysically or physically (*i.e.,* if not deciding to do X is logically, analytically, conceptually,

metaphysically or physically incompatible with past facts, the laws of nature or logic), then clearly Joe cannot freely decide to do X. So…so far so good

The second premise does not show as much promise however. Recall the second premise:

(2) All past events are now-necessary*.

On any alethic formulation, premise 2 will be quite implausible. To see why, let us examine the result of premise 2 being expressed with a specific alethic modality: logical modality. "Event Y is now-logically-possible" means:

- *"It is logically possible, compatible with past facts, the laws of nature and logic, that Y occur."*

We could more accurately describe this as:

- *"Past facts, the laws of nature and logic entail that the occurrence of event Y is logically possible (they do not entail that Y is logically impossible)."*

Likewise, "Event Y is now-logically-necessary" means:

- *"It is <u>not</u> logically possible, compatible with (i.e. given the) past facts, the laws of nature and logic, that Y not occur."*

This could be more accurately restated as:

- *"Past facts, the law of nature and logic entail that the non-occurrence of Y is not logically possible (i.e., is logically necessary)."*

So the second premise of a "logical modality" version of the theological argument will read:

- *"For any given past event Y, past facts, the laws of nature and logic entail that the occurrence of Y is logically necessary."*

Clearly this is false. Even though some past events might be logically necessary all past events are not logically necessary. Even when it is a past fact that Y occurred, this fact does not entail that it is (or was) logically necessary that Y occur.

With this in mind, we can see that such a premise would be false on any alethic version of the argument. Past facts, the laws of nature and logic do not entail that all past events are analytically, conceptually, metaphysically or physically necessary. The past *is* fixed—but in some other way.

**2:2.3 – Where We Go From Here**

This teaches us a couple of things.

First, in very short order, we can see that all alethic modalities fail to produce a severe version of the theological argument because they will all have a false second premise. Thus the answer to the above first question is clearly "no." We must turn to more "unconventional" modalities if we are to have hope of producing a severe theological argument.

Second, we can see that any modality that even has a chance to produce a severe argument will need to be temporally asymmetrical. How we reach this second conclusion may not be straightforward, so let me explicate.

The reason that the alethic modalities fail is because there is no difference between the past and the future in regard to those modalities. For the argument to

work, we need a modality that defines "possible*/necessary*" in a way in which it is correct to say that "if Joe is to be free, it must be possible* for him to not decide as he will" which will get us a true first premise. Such a definition will suggest that (at least if we are free) there is more than one possible* future. But in order for the second premise to be true, by that same definition of "possible*/necessary*" all past events must be necessary*. Thus any modality that can even get the argument off the ground (by the first two premises of the argument being true), will have to suggest something different about the modal status of the past and the future; *i.e.,* it will have to be temporally asymmetrical.

Since none of the axiomatized modalities do this, we carefully must turn to non-standard non-axiomatized modalities. Two modalities that seem—on face—to be temporally asymmetrical are the modalities of "changeability" and "causability." Many people think that the past is not changeable, but the future is. It even seems to be entailed by a law of physics that the only things one can cause lie in the future. So it is to these modalities that I will first turn. But it will be necessary to answer the following three questions when dealing with these modalities:

(1) Does the modality's definition of possible*/necessary* generates a true first premise when plugged into the theological argument? (*i.e.,* is it correct to say that—by that modality's definition of possible*—it must be possible* for Joe to not decide to do X if Joe is to be free?)

(2) Is the past necessary* by that modality's definition of necessary*?

(3) Will the principle required to validate the argument (TNP) be valid under that modality?

In our search for a non-standard modality, we shall first turn our eyes to the most common way of understanding the theological argument: in terms of changeability. I will address the modality of causability in the next chapter.

### 2:3 – Changeability

This section will consider the (supposedly) temporally asymmetric modality of "changeability." It is this modality that most have in mind when they attempt to articulate the theological fatalist argument. "Now-changeable" will be substituted for "now-possible*" to see if this modality produces a severe theological argument. We will discover that it will not. Such an argument's first premise will be false because the suggestion that the future is now-changeable is logically incoherent and thus the ability to change the future is not required for free will.

#### 2:3.1 – Why Changeability?

As we saw above, the right strategy for finding a kind of modality which produces a serious version of the dilemma would be to find one which had a commonly held temporal asymmetry; one which captures our commonly held view that "the past is necessary, but the future is not." Such a modality should at least produce a dilemma in which the first two premises are true and thus avoid the objections of the last section.

The first modality that likely comes to mind is "the modality of changeability." That *the future is changeable but the past is not* is probably the most common notion regarding the asymmetry of the past and the future. Most suggest that once an event has happened it is unchangeable; you can not "undo" it. In fact,

this is why it is a truism that "there is no use crying over spilt milk" (Zagzebski (1991) p. 17). You can cry all day long, but this will never change the fact that the milk has been spilt; the best thing to do is move on and be more careful next time. And that is it exactly: unlike the past, the future supposedly *is* changeable; I can be careful next time!

It is in terms of changeability that the theological argument is most commonly conceptualized. If I cannot change God's past beliefs, but God's beliefs are infallible and about the future, then I cannot change the future either, and thus I am not free.

**2:3.2 – Defining Changeability**

"Change" itself is a common enough concept. We change light bulbs and baby's diapers. We might change our major in college or change our last name. Notice however that even though you could put a diaper on a diaper-less baby, you cannot change a diaper-less baby's diaper. You cannot change a light bulb in a lamp that has no light bulb and you cannot change your major unless you already have one. (If one does not have a major one declares their major). Certainly you cannot change the fact that John Kerry won the 2004 United States presidential election (since he lost). To change some fact, that fact must first be true.

The fact that the future is changeable is supposedly one of the reasons humans are able to be free. Supposedly, if the future were not changeable, then it would be "locked down" like the past and we would be able to do nothing but what the future held. This obviously motivates a "changeability" version of PAP. If Joe is to freely decide to do X, the fact that Joe will decide to do X must be now-changeable. Stated more precisely:

Changeability version of PAP: ($PAP_c$)

Joe freely decides to do X tomorrow only if the fact that Joe will decide to do X is now-changeable.

This will be the first premise in a "changeability" version of the theological fatalist argument

Before we look at this version of the problem, there are a few things to note about this modality. First we cannot use both the □ and ◊ operator to represent changeability and non-changeability. One might be tempted to suggest that we use □ and ◊ as such:

Where: $\Box_c\alpha$ reads: it is now-unchangeable that $\alpha$

$\Diamond_c\alpha$ reads: it is now-changeable that $\alpha$

However, this suggestion is unhelpful. Under such an interpretation, the following normal modal relations would not hold:

$\Box_c\alpha \supset \Diamond_c\alpha$ (*i.e.,* "If $\alpha$ is now-unchangeable then $\alpha$ is now-changeable")

$\alpha \supset \Diamond_c\alpha$ (*i.e.,* "If $\alpha$ is true, then $\alpha$ is now-changeable")

Both of these are clearly false.

Of course these relations not holding is not detrimental to all modal logics; there are certain non-alethic modalities where they do not hold. However, not even the equivalence relation common to all modalities holds:

$\Box_c\alpha \equiv \sim\Diamond_c\sim\alpha$

This would read "It is unchangeable that α IFF it is not changeable that ~α" and is clearly false. The former says "α is unchangeable" the latter says "~α is unchangeable." This is in fact a contradiction.

Defining the operators this way is clearly undesirable. But we can solve this problem by using just one modal operator ($\Box_c$) and defining it as such:

$\Box_c\alpha$ will read "it is now-unchangeable that α."

If I want to suggest that α is now-changeable, I will write: "$\sim\Box_c\alpha$ ." I will call this kind of modality S5C.[1]

All normal rules (proof rules, tree rules, etc.) for sentential, predicate, and modal S5 logic will hold in S5C. (We will still read $\Box\alpha$ as "it is <u>logically necessary</u> that α.") One additional rule should be included in S5C.

Axiom (0) $\sim\Box_c\alpha \supset \alpha$

[1] If we wished, we could avoid a "modal operator" and just use a "statement/predicate modifier" like "ℜ" where ℜP would read "it is changeable that P" or ℜRxy would read "it is changeable that x bears relation R to y." For our purposes the $\Box_c$ will work better, to remind us that we are using a kind of modality and to remind us that we are modifying entire statements.

Axiom (0) reads: "If it is now-changeable that α, then α must be true." As mentioned at the beginning of this section, to change some fact that fact must first be true. It follows that if some fact is now-changeable, then that fact must be true. In fact this rule will not be needed to form a valid theological fatalist argument, but it will be useful later.

Some other axioms can be formulated. Consider the following S5 axioms.

(1) $\Box\alpha\supset\alpha$,

(2) $[\Box(\alpha\supset\Gamma)\ \&\ \Box\alpha]\supset\Box\Gamma$

(3) if $\models\ \alpha$, then $\Box_c\alpha$.

Of course, in S5 those axioms hold, thus they also hold is S5C. Let us call them S5C's axioms (1) through (3). But we can slightly modify them (by replacing $\Box$ with $\Box_c$) to produce additional axioms for S5C.

S5C Axiom (4): $\Box_c\alpha \supset \alpha$ (*i.e.,* If α is now-unchangeable, α is true.)

S5C Axiom (5) $[\Box_c(\alpha\supset\Gamma)\ \&\ \Box_c\alpha]\supset\Box_c\Gamma$ (*i.e.,* If both $\alpha\supset\Gamma$ and α are now-unchangeable, then Γ must be now-unchangeable as well.)

S5C Axiom (5) is actually is the TNP that will be utilized by this version of the argument. Since "$\Box_c$" indicates, not only truth, but unchangeable truth, its validity seems quite uncontroversial (so it seems that we would have no problem with the validity of this version's TNP). I will also call S5C axiom (5) "$TNP_c$."

S5C Axiom (6) if $\models \alpha$, then $\Box_c\alpha$ (*i.e.,* If $\alpha$ is a theorem, then $\alpha$ is now unchangeable.

Notice that this holds for all axioms listed.[2]

Lastly we can also note the following principle that expresses the fact that logical truths are unchangeable.

Logical Truth Entails Unchangeably (LTEU)

$\Box\alpha \supset \Box_c\alpha$

### 2:3.3 – The Changeability Version of Theological Fatalism

I have thoroughly defined this non-axiomatized modality, so we can now consider it axiomatized. Since it also seems to be temporally asymmetrical, our hopes are high regarding this modality's ability to produce a severe theological fatalist argument. In this sub-section, I shall continue our test of this modality by substituting this modality's definition of "possible*/necessary*" into the original formulation of the argument. I will then make a small digression and fulfill my

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[2] I have left out one S5 axiom:

$\models \sim\Box\sim\Box\alpha \supset \Box\alpha$

This axioms could be altered in the same way to produce an additional S5C axiom:

S5C Axiom (7) $\models \sim\Box_c\sim\Box_c\alpha \supset \Box_c\alpha$

The antecedent would read: it is changeable that it is changeable that $\alpha$. The axiom is valid if the antecedent entails that $\alpha$ is unchangeable. But does it? You might understand "$\sim\Box_c\sim\Box_c\alpha$" as "$\alpha$'s status is changeable, but you could change that fact." Of course, if <u>you were</u> to change that fact, then $\alpha$ would be unchangeable and the consequent ($\Box_c\alpha$) would follow. But the mere fact that you could change that fact does not entail that its status has been changed (to unchangeable). Thus I do not think $\Box_c\alpha$ follows from $\sim\Box_c\sim\Box_c\alpha$, and thus I don't think that S5C axiom (7) should be included in the axiom set of S5C. Some of my colleagues' intuitive reaction to this axiom as been to the contrary. But, in the end, determining the truth of the matter will not be required because this axiom will not be used (nor will its S5 counterpart). But it is at least interesting to note that if the last axiom did hold, one would have a good case for suggesting that S5C is stronger than S5, especially since S5 contains no counterpart for S5C's axiom (0).

promise from chapter 1 to formally prove the arguments validity. (By doing so, I will show that all similar forms of the argument are valid if their TNP is valid.) But ultimately our high hopes will be dashed. What will be evident by the end of this sub-section is that this modality's suggestions about the modal status of the future is actually logically incoherent and thus this modality is useless in regard to producing a severe theological fatalist argument.

**2:3.3.1 – The Substitution (setting up the problem)**

I will now take the modality of changeability's definition of "possible*/necessary*" and plug it into the original formulation of the argument. In terms of changeability, the theological fatalist argument is as follows:

Call whatever action Joe will decide to do tomorrow "X."

1) Joe freely decides to do X tomorrow only if the fact Joe will decide to do X is now-changeable.
2) All past events are now-unchangeable.
3) God believed yesterday: "Joe decides to do X tomorrow"
4) It is now-unchangeable that God believed yesterday: "Joe decides to do X tomorrow"
5) God can have no false beliefs (*i.e.,* it is now unchangeable that if God believes $\alpha$ then $\alpha$ is true)[3]
6) If $\Box_c\alpha$ & $\Box_c(\alpha \supset \Gamma)$ then $\Box_c\Gamma$ (by $TNP_c$)
7) It is now-unchangeable that Joe decide to do X tomorrow

[3] A quick note about the truth of this premise is required. It follows simply from LTEU and the logical necessity of God's omniscience. Since it is logically necessary that God have no false beliefs, it is unchangeable that God have no false beliefs.

8) Joe cannot freely do X tomorrow.

So far we have been assuming that this argument form is valid.[4] But we need merely assume it no longer. We now have a modality that has an intuitively plausible asymmetry that would allow us to construct a plausible version of the argument that we can test. We even have this modality formalized into an axiomatic system. Thus, to fulfill my promise from last chapter, I will formalize the argument to demonstrate validity. (If you are already convinced of validity, skip to the next section.)

**2:3.3.2 – Formalizing and Testing the Argument**

So far, we have been articulating the argument in terms of "Joe" and some action that Joe will do tomorrow. But this argument is supposed to show that no action that anyone does is free. So, to truly demonstrate validity, we want premise 1 (and all others, except 2) to be true for any given person's decision to do any given action. Such an argument can be formally expressed (with the justification for each premise following by an English explication of its content) as follows:

Where: $\Box_c Q$ reads: the fact that Q is true is unchangeable

[4] It must be noted that this argument's form is slightly different than the original version in chapter 1. This is simply because we do not need a move from "necessity" to "impossibility" since we are using only one operator with this form of modality ($\Box_c$). In the original version of the argument, we assumed that the modality would use both modal operators. We established in premise 7 that the decision was necessary, and then used premise 8 ($\Box^*\alpha \equiv \sim\Diamond^*\sim\alpha$) to establish (in premise 9) that not making the decision was impossible*. We then used this to show that the decision was not free, given that PAP suggested (in premise 1) that not making the decision must be possible if one is to be free. In this version of the argument we do not go from "necessity" to "possibility" because we do not have an operator for both (we do not have a $\Diamond_c$). Premise 7 states that the decision is now-unchangeable and premise 1 states that to be free the decision must be now-changeable. Thus the deductive move to 8 is already justified. But since the logical move "$\Box^*\alpha$, $\Box^*\alpha \equiv \sim\Diamond^*\sim\alpha$ $\therefore \sim\Diamond^*\sim\alpha$" is obviously valid, I will assume that it is equally obvious that a proof of the validity of the above argument will also show the original formulation of the argument (found in chapter 1) to be valid as well. Such a proof can be found in the next section (section 2:3.3.2).

Px reads: x is a person

Ax reads: x is an action

Dzxy reads: z is a decision made by x to do y

Fzxy reads: z is a free decision by x to do y

$\mathbb{P}$x reads: x is a past event

$Bx_1wzxy$ reads:$x_1$is the believing by w that z is a decision by x to do y.

g = God

Domain: all logically possible objects (*e.g.,* persons, God) and events (*e.g.,* decisions, actions, believing).

1) $\forall xyz\ [(Px \ \& \ Ay \ \& \ Dzxy) \supset (Fzxy \supset \sim\Box_c Dzxy)]$

   - For any person (x) and action (y) and decision (z) made by that person to do that action, that decision is free only if it is now-changeable that z is a decision made by x to do y. ($PAP_c$)

2) $\forall x\ [\mathbb{P}x \supset \forall X(Xx \supset \Box_c Xx)]$

   - For any event, if it is a past event then for any given property that past event has, it is now-unchangeable that it has that property (including the property of being past). (From the unchangeably of the past.)

3) $\forall xyz\ [(Px \ \& \ Ay \ \& \ Dzxy) \supset \ \exists x_1(\mathbb{P}x_1 \ \& \ Bx_1gzxy)]$

- For any person (x) and action (y) and decision (z) made by that person to do that action, there is a past event that has the property of being the believing by God that z is a decision made by x to do y. (From the classic conception of God's omniscience)

4) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \exists x_1\,(Bx_1gzxy \,\&\, \Box_c Bx_1gzxy)]$ (from 2 and 3)

- For any person (x) and action (y) and decision (z) made by that person to do that action, there is an ($x_1$) such that it has the property of being the believing of God that z is a decision made by x to do y and it is now unchangeable that $x_1$ has that property. (from 2&3)

5) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \Box(\forall x_1(Bx_1gzxy \supset Dzxy))]$

- For any person (x) and action (y) and decision (z) made by that person to do that action, it is logically necessary that: for any $x_1$ if $x_1$ has the property of being the believing of God that z is a decision made by x to do y then z is a decision made by x to do y. (From God's essential omniscience—it is logically impossible for God to have false beliefs.)

6) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \forall x_1\{[\Box_c Bx_1gzxy \,\&\, \Box(Bx_1gzxy \supset Dzxy)] \supset \Box_c Dzxy\}]$

- For any person (x) and action (y) and decision (z) made by that person to do that action, for any $x_1$ if (1) it is now-unchangeable that $x_1$ is the believing of God that z is a decision

made by x to do y, and (2) it is logically necessary that: if $x_1$ has the property of being the believing of God that z is a decision made by x to do y then z is a decision made by x to do y, then (3) it is now-unchangeable that z is a decision made by x to do y. (From $TNP_c$)

7) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \Box_c Dzxy]$

- For any person (x) and action (y) and decision (z) made by that person to do that action, it is now-unchangeable that z is a decision made by x to do y. (From 4 - 6)

8) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \sim Fzxy]$

- For any person (x) and action (y) and decision (z) made by that person to do that action, it is not the case that z is a free decision made by x to do y. (from 1 and 7)

When testing for validity, premise (4) is not needed since it follows from (2) and (3); and (7) is not needed since it follows from (4) and (6). Thus the following argument can be verified as valid in order to assure the validity of the previous argument.

1) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset (Fzxy \supset \sim\Box_c Dzxy)]$

2) $\forall x\,[\mathbb{P}x \supset \forall X(Xx \supset \Box_c Xx)]$

3) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \exists x_1(\mathbb{P}x_1 \,\&\, Bx_1gzxy)]$

4) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \Box(\forall x_1(Bx_1gzxy \supset Dzxy))]$

5) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \forall x_1\{[\Box_c Bx_1gzxy \,\&\, \Box(Bx_1gzxy \supset Dzxy)] \supset \Box_c Dzxy\}]$

Therefore:

6) $\forall xyz\,[(Px \,\&\, Ay \,\&\, Dzxy) \supset \sim Fzxy]$

See appendix 1 for a truth tree that conforms this arguments validity.

What this argument's validity clearly demonstrates is that all the "standard" logical moves of this version, and in fact any version of the argument (that follows this form), are good. The validity of any version will turn on the validity of the non-standard move that happens in TNP. Since this version has TNP as an axiom of its logic, the validity of this version is obvious and we must now question its soundness.

**2:3.4 – Temporal Asymmetry Regarding Changeability**

Since the argument is valid, at first glace the argument seems severe. But it is severe only if the first premise of the argument is true. But that is the case only if the ability to change the future is required for free will. But this is the case only if the notion of changing the future is logically coherent, which it is not. As we shall now see, the very notion of the future being changeable leads to logical contradiction.

We should have an intuitive idea regarding what it means for the past to be "now-unchangeable" but it can be expressed specifically as "Past facts, the laws of nature and logic are incompatible with the past changing." What would it mean for the past to change? Presumably it would be for some fact that is true about the past to become false; for some event that *occurred* to become an event that *did not occur*.

That such a thing could not happen seems to be exactly what past facts, the laws of nature and logic demand! Since the causal arrow only runs forward (which presumably is a law of nature)[5] we cannot causally affect the past, and it seems that doing so would be necessary if we were to change it. In fact, it seems clear that it is logically impossible for an event to "have occurred," but later "never occurred"; but this is exactly what changing the past would demand.

We can express the now-unchangeability of the past in this way: *for any given selected moment in time (call it $T_1$), there is a collection of events (call it set {E}) that is the actual past relative to $T_1$, and there never will be a future time ($T_{1+x}$) where it is the case that the actual past, relative to $T_1$, will not include set {E}.*

What would it mean then to suggest that the future is now-changeable? First, we must realize that there are many different "logically possible" futures. To suggest that the future is changeable is to suggest that "which logically possible future is the actual future" is changeable. Second, we must realize that, in order for some fact to be changeable, that fact must be true (by axiom (0)). I can only change the fact that there is a pencil on the table if there is a pencil on the table. I cannot change the fact that John Kerry won the 2004 election since he lost. So to suggest that "which logically possible future is the actual future is changeable" is to admit that it is true that there is a logically possible future that is the actual future, but claim that this logically possible future's status can be changed from actual to non-actual. Thus we could understand the claim that "the future is changeable" in the following way:

*For any given selected moment in time (call it $T_1$), there is a logically possible future E that is made up of some collection of events (call it set {E)) that is the*

[5] The causal arrow will be discussed in the next chapter.

*actual future relative to $T_1$. But it could be true that at some later time ($T_{1+x}$) some other logically possible future relative to $T_1$ (that consists of events that are mutually exclusive with members of {E}—i.e., events whose occurrence entails that some of the events that were once future events will not occur) is the actual future relative to $T_1$.*

Thus to suggest that the future changed (at $T_2$), with regard to some event e, would be to suggest: a*t some past time (call it $T_1$) it was true that logically possible future E (that contained event e) was the actual future relative to $T_1$, but that fact changed at $T_2$ when logically possible future F (that does not contain event e) became the actual future relative to $T_1$ and $T_2$.*

But such a suggestion is absurd! If it is true at $T_2$ that "*e <u>is not</u> part of the actual future relative to $T_1$*," it cannot have been true at $T_1$ that *"e <u>is</u> part of the actual future relative to $T_1$."* If e does not occur after $T_1$, then "*e <u>is not</u> a part of the actual future relative to $T_1$*" is true at $T_1$. To suggest otherwise is to suggest that e both is and is not a part of $T_1$'s actual future. Clearly this is a contradiction.

The logical jargon may have made the above obtuse. For clarity, consider an example of what would supposedly be a paradigm case of the "future changing."

Bob and Sue are planning to get married on Saturday the 13th. They are very much in love, and neither of them as any inclination to "back out." Everyone says "they are meant to be together and nothing could keep them apart." One might say on the Thursday before the wedding (the 11th):

(12) "Today it is true that "Bob and Sue will get married on Saturday the 13th"; *i.e.,* "The actual future relative to today (Thursday) contains the event of Bob and Sue marrying on Saturday the 13th."

However, suppose that on Friday a tornado destroys their church and they have to move the wedding to the Friday of the following week and in fact they do not marry that Saturday. One might say:

(13) "On the Friday before the wedding (the 12th), it is not true that "Bob and Sue will get married on Saturday" *i.e.,* the actual future relative to Friday does not contain the event of Bob and Sue marrying on Saturday the 13th (the next day)"

This would supposedly be a paradigm case of the *future changing*. But one who suggests that the future does change in this situation is committed to accepting both 12 and 13; that it was true on Thursday that they would get married on Saturday, but false on Friday that they would get married on Saturday. Such a person must accept both 13 and:

(14) "On the Friday before the wedding it is true that on the Thursday before the wedding, it was true that "Bob and Sue will get married on Saturday."

But since there can only be one actual future (two futures cannot both be actual), it must be that the Thursday's actual future must include the events of Friday's actual future, and if an event is included in Friday's actual future, it must also be included in Thursday's actual future. But if one must accept both (12) and (13) then one must accept that Friday's actual future both contains and does not contain the event of *Bob and Sue getting married on Saturday*. Clearly this is logically inconsistent.

So the suggestion that the future is changeable is actually logically inconsistent and so is the suggestion that the past and future is asymmetrical in this way. Consequently, the past and the future are not asymmetrical in this way; neither the past nor the future are changeable. Consequently, we can see that the first premise of the above argument (the "changeability version" of PAP) either 1) is ill-motivated by a non-existent asymmetry and should be rejected on those grounds, or 2) is plainly false and should be rejected on those grounds, or 3) demands that which is logically inconsistent as a necessary condition for free will and should be rejected on those grounds. In any event, $PAP_c$ must be rejected and consequently the first premise of the causability argument is false. The "changeability" version of the theological argument is unsound.

**2:3.5 – One last note**

It is worth noting that some use the language of changeability in a consistent way. On Sunday, someone might suggest that: *it is now true that "it was true on Thursday that 'X was going to happen on Saturday'" but it is also now true that "it was true on Friday that 'X was not going to happen on Saturday,'"* but only be

expressing something about the fact that plans changed between Thursday and Friday. Essentially, what such a person would mean is that on Thursday, X was planned for Saturday, but plans changed by Friday. This of course is a completely coherent notion, but not at all the one addressed above, and not the one that would be necessary to produce a severe version of the theological fatalist argument.

### 2:4 – Not Changeable vs. Unchangeable

You might be asking yourself, "Well if the future is not changeable, what hope can there be for free will? Isn't the argument you have just presented against this asymmetry and the notion that the future is changeable just another fatalist argument? If the future is not changeable, it must be unchangeable; and if it is unchangeable we cannot be free!" However, there is no reason to worry. The desire to not have the future be unchangeable is well motivated (by PAP no less), but something not being changeable does not entail unchangeability; the fact that the future is not changeable does not imply that it is unchangeable. On face this seems strange, but in fact it is quite straight forward.

I take the phrase "X is unchangeable" here to imply that X is true/false and that this fact cannot be changed; but the phrase "X is not changeable" does not imply this—something might not be changeable because it is not true or simply does not exist. For instance consider the college student who has not yet declared a major. He cannot change his major (thus we could change that his major is not changeable), but we would not say his major is unchangeable (*i.e.,* we would not say that "he has a

major and it cannot be changed.") His major is not changeable since he does not yet have one, but his major is not unchangeable.

The future may very well be unchangeable—in fact, whether or not it is, is the very issue at hand—and that the future is unchangeable may be established by an upcoming argument. But the fact that the future is not changeable does not imply that it is unchangeable—at least if the notion of unchangeability implies what I suggest it does. If the future is not changeable, it might be so because it does not exist, and if this is the case clearly the future is not "fixed and necessary" and no fatalist conclusion would follow. Thus, my argument that the notion of a changeable future is incoherent and my conclusion that the future is not changeable does not imply a fatalist conclusion. We will examine the suggestion that the future does not exist in chapters 5 and 6.[6]

### 2:5 – Conclusion

The answer to our first question ("is there a coherent non-standard modality?") is this: not so far. In the next chapter a non-standard modality that is consistent and that does have a true first and second premise will be presented. It is the answer to the third question that will be important in chapter three: is that modality's TNP valid?

[6] If "X is unchangeable" does not imply that "X is true and this fact cannot be changed" but instead implies exactly what "X is not changeable" implies, then this is a moot point and "X is not changeable" IFF "X is unchangeable." But if this is the case, the future being "unchangeable" would not threaten free-will and my argument that shows the future is not changeable could not be a fatalist one—even if it did imply that the future is unchangeable. Again, the future could be unchangeable simply because it does not exist to be changed; if this is the case, clearly the future is not necessary and it is still possible for Joe to not decide to do X.

# Chapter 3

# Causability

## 3:1 – Introduction

### 3:1.1 – Why Causability

In the last chapter (section 2:2.3) we discovered that a temporally asymmetrical modality is required to produce a severe theological fatalist argument. However, the temporal asymmetry of the first such modality (the modality of changeability) turned out to make logically incoherent suggestions about the future. Obviously what we need is a modality with a temporal asymmetry that does not do so; one that suggests that the past differs from the future but one that does not make incoherent suggestions about the modal status of the past or the future.

The modality of "causability" is a perfect candidate. Our intuition suggests that the causation arrow only runs one way: forward. Consequently, it seems that the past is not causable, but the future is. And it seems that such a notion is perfectly coherent, and in fact is backed up by (what some might call) a law of physics/nature: the "law of causation." We shall express this law as follows:

The Causal Law: Effects cannot precede their causes. [1]

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[1] One might be tempted to express this law as follows:

Causes must precede their effects.

However, in my opinion, this expression is not entirely accurate; there is an exception to this rule in "simultaneous causation." Consider the following situation. I place my hand on a fork placed on a table. I then move my arm, which moves the fork. As the movement of my arm stops, the movement of the fork stops. In this case, the immediate cause of the fork's movement is the movement of my arm; and yet the movement of my arm does not happen before the movement of the fork, but happens simultaneously. The cause is simultaneous with its effect and does not precede it.

We might also understand this as the suggestion that *the causal arrow cannot run backwards*.

The temporal asymmetry suggested by the causal law might seem obvious, but actually is a little tricky: The past is not now-causable, but *part of* the future is. We cannot generalize and suggest that all of the future is now-causable, since clearly parts of the future are not now-causable. Further, one event might be now-causable for one person, but not for another. We can best articulate the temporal asymmetry suggested here in terms of an individual person (our beloved Joe): No past event is now-causable by Joe, but some future events (like action X, or Joe's decision to do X) are now-causable by Joe.

According to Zagzebski (2004b) it is not just the pastness of an event that makes it not-now-causable; but it is its pastness in conjunction with the causal law that makes it not-now-causable. If it is true now that A is some past event, we could explain *A being <u>not</u>-now-causable by Joe* by pointing out it is not compatible with the actual past and the laws of nature and logic that Joe now play a causal role in bringing about A.[2]

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In correspondence, Jim Hawthorne has expressed something along the following: "It turns out that if the world is like we (the philosophers and modern scientists) think it is (*i.e.,* if general and special relativity is true), it is a matter of fact (at least in regard to causation between objects) that causes are never simultaneous with their effects. No causation on the mirco-level (where everything is interaction between electromagnetic fields) occurs simultaneously. However, this does not mean that our concept of causation does not include the possibility of simultaneous causation. If the world was Newtonian, it might make perfect sense to suggest that (on some level) simultaneous causation did occur." Since I wish to only capture our general concept of causation (and I wish to allow for non-physical causation), I will assume that my causal law is sufficient for our purposes. It certainly does not say anything false, and only if simultaneous causation is impossible does it fail to capture something about causation that a complete account would capture

[2] If we deny the causal law, the pastness of a past event would not put it outside the realm of causal influence. Dummett (1964) suggests that denying the causal law, although not common, is at least

This temporal asymmetry is quite hard to deny; and its suggestions about the "causability status" of the future and past are coherent and quite plausible. The hope for producing a severe theological argument again seems strong.

**3:1.2 – Road map**

There are two possible ways that a causability version of theological fatalism could suggest the non-freedom of Joe. One way is by attempting to show that Joe cannot cause his own future actions; the other way is by showing Joe cannot refrain from causing his own future actions. We will deal with the former first, and then turn to the latter. In both cases, we shall turn to our third question (from section 2:2.3): will the transfer principle required to validate the argument be valid under that modality? We will discover that, in both cases, it is invalid.

In section 3:2 we will deal with the former. In sub-section 3:2.1 I will articulate the way that Joe must be able to cause the future and articulate the argument in those terms. This will be "version 1.0" of the causation formulation of the theological fatalist argument. In sub-section 3:2.2 we will then turn to the transfer of necessity principle (TNP) utilized in version 1.0. We will see that the TNP needed to validate version 1.0 is actually invalid. I will then articulate its numerous flaws and construct a stronger transfer principle (with a new causal modal operator). In sub-section 3:2.3 I will then articulate the argument in those terms (version 1.1). In sub-section 3:2.4 I will then demonstrate that, despite all our efforts, this new transfer principle is still invalid, thus demonstrating the failure of version 1.1 of the theological fatalist argument.

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coherent and comprehensible. We will see however, in chapter 6, that even denying the causal law and granting backwards causation will not solve the most serious version of theological fatalism.

Section 3:3 will deal with the latter. Sub-section 3:3.1 will show that this version will be more in line in the original formulation of the argument in chapter one. I will define in what way Joe must be able to refrain if he is to be free. In sub-section 3:3.2 I will articulate a new PAP, a new modal operator, and a new TNP in terms of that operator. In sub-section 3:3.3 I will articulate two new rules that apply to this new operator. In sub-section 3:3.4 I will articulate the argument in terms of the new PAP, modal operator, and TNP. We shall call this version 2.0. In Sub-section 3:3.5 we will see that something similar to McKay and Johnson's agglomeration counter example (which they used to invalidate Van Inwagen's Beta-Principle—discussed below) can also be used invalidate version 2.0's transfer principle. In section 3:4 I will conclude that no causal version of the argument is severe.

### 3:2 – Causing the Future

#### 3:2.1 – The First Version of The Argument (Version 1.0)

##### 3:2.1.1 – Motivation for This Version of The Argument

The previous version of the argument, as well as the "model" version of the argument given in chapter 1, began with a version of PAP. In each case the first premise suggests that, to freely decide, it must be possible* (*i.e.,* possible in some sense) for Joe to <u>not</u> decide as he will. But the reader may have noticed something: this section's version will have a first premise that will not be a version of PAP*; it does not suggest that Joe's freedom is contingent upon the possibility of Joe not deciding as he will but suggests that Joe's freedom is contingent upon his ability to

cause the action (or cause the act of deciding to perform the action) he will perform. Thus it must here be explained why we are even dealing with this first version of the argument at all.

The reason is twofold.

(1) Even though its first premise is not a version of PAP*, it is still quite intuitive; it still articulates a necessary condition of Joe's freedom: to decide freely, Joe must be able to cause his future decisions/actions. If this argument concludes that (in light of God's past infallible beliefs about the future and that fact that Joe cannot cause them) Joe cannot cause this own future decisions/actions—and the argument seems intuitive and plausible—this argument clearly is a fatalist argument that needs to be dealt with. Regardless of the fact that it does not utilize a version of PAP, it still threatens free will.

(2) This version is quite relevant to the debate on agent causation. To circumvent the fatalist arguments that utilize PAP, some philosophers have suggested that PAP is false and have instead favored the following articulation of the necessary conditions for free decision: a decision is free IFF it is agent caused. Clearly, if an argument can establish that an agent cannot cause his own actions/decisions, as this former argument shall attempt to do, then the fatalist conclusion is still established, despite the agent causation defenders attempt to avoid it by circumventing PAP. Such arguments are not un-discussed; such argument's TNP's are discussed by Zagzebski (1991) and we will talk more about agent causation in chapter 6. But since we are dealing with causation now and can easily do so, it will benefit us to articulate, explore and defeat this argument now, so that we may refer it later.

### 3:2.1.2 – Why "Now-Intentional-Causability"

#### 3:2.1.2.1 – Intentional Causation

The first premise of our argument is supposed to capture "choice." Since we are trying to construct a version of the argument in terms of causation, the relevant question is: "What 'kind' of causation is relevant to (*i.e.,* necessary for) choice?"

There are a number of *kinds* of causation. For instance, there is remote causation and immediate causation; given some causal chain, where A causes B and B causes C; usually it is said that A is a remote cause of C and B is the immediate cause of C. There is also necessary and sufficient causation; D and E might be two events both of which are necessary to bring about F but neither of which are sufficient to bring about F.

These concepts are needed, but for our purposes the most relevant causal distinction is between accidental and intentional causation. Their distinction is fairly clear. I might intentionally cause my oven to heat up, but accidentally cause my apartment building to burn down (by accidentally forgetting to turn the oven off). The distinction's relevance to choice should be obvious. In such a circumstance it is clearly the case that I chose to turn on my oven, but did not choose to burn down my apartment building. Consequently, it seems that "choosing to do X" specifically implies that one is able to "intentionally cause X." Thus the notion "intentional causation" shall be utilized in this chapter.

#### 3:2.1.2.2 – PIC

To formulate the argument, we need a statement of a necessary condition for choice in terms of intentional causation; we need a first premise. We might think it

best to present a full definition of choice in terms of intentional causation and use such a definition as our first premise. However, as it is with everything in philosophy, there are a few counter examples that cause problems in this regard and for an exhaustive definition of choice, much precision would be required. Consider the following complications:

On face, one might suggest that free choice can be defined as follows: Joe freely chooses to do X IFF Joe intentionally causes himself to do X. However, clearly someone who is paralyzed can choose do to raise her arm (especially if she has not yet discovered she is paralyzed) without being able to intentionally cause her arm to rise. Generally speaking, she can choose to do X without being able to intentionally cause X. So the above definition will not do. However, in the example, the paralyzed person is clearly intentionally causing something, so our hope for a definition of choice in terms of intentional causation are not completely dashed—but what is she intentionally causing? One might suggest that the paralyzed person intentionally causes a brain event.[3] But what mental process, if any, supervenes on that brain event? Is the agent causing the brain event that gives rise to the mental event that is her decision to raise her arm? This would seem to be a coherent suggestion, for in normal circumstances it seems that decisions are what cause actions, and such a brain event would be what caused her arm to raise if she weren't paralyzed. But how can an agent cause her own decision? One might ask "Aren't decisions made and not caused by agents?" or "Isn't *deciding* just something the agent does… but not something an agent causes?" And the complications go on.

[3] For breakthrough discussion on an agent's ability to cause brain events, see Chisholm (1966).

Clearly, to fully articulate a definition of free-choice in terms of intentional causation, we would need to delve deep into the literature on agent causation. Such a task would be quite enlightening, but also quite cumbersome. Fortunately such an articulation will not be required since our first premise need not be a full account of choice, but (as does PAP) merely expresses a necessary condition for choice.

Since we have been implicitly assuming that Joe is "unimpaired" (he will be awake and functioning tomorrow) the following is clearly the case: Call some action Joe's body will perform tomorrow X, Joe freely decides to do X tomorrow only if Joe's body performing action X tomorrow is now-intentionally causable by Joe. In other words, since Joe is a "functioning person," if Joe cannot now-intentionally cause his own future actions, then he cannot freely decide to do them. Consequently, we shall use this statement of a necessary condition of free choice as our first premise:

> "The Principle of Intentional Causation" (PIC).
>
> Joe freely decides to do action X tomorrow only if Joe's body performing action X tomorrow is now-intentionally causable by Joe.[4]

**3:2.1.2.3 – The Modal Operators of Now-Intentional Causation**

[4] It is important to note: by the definition of "now-intentional causation," if "action X is now-intentionally causable by Joe" is true this moment, it does not follow that Joe can intentionally cause action X right this very moment. Clearly, if action X is "Joe's finger pulling the trigger at 8am tomorrow" but it is now *3pm today*, Joe cannot perform action X "right now." But that he can is not what the "now-intentional causability of action X" would suggest. By saying today, "action X is now-intentionally causable by Joe" one would only suggest that "it is compatible with the past, the laws of physics, and logic, that—when action X occurs—it is causable by Joe." Thus, PIC cannot be falsified by the suggestion that Joe cannot, this very instant, cause his non-immediate future actions.

As with changeability (and for similar reasons), intentional causability cannot be treated as a true modality; *i.e.,* as with changeability we will not be able to use two modal operators. Consequently, simply let

> "$\Box_{©}\Omega$" read: "Ω is not-now-intentionally-causable by Joe" (*i.e.,* it is not compatible with the actual past, laws of nature and logic that Joe intentionally cause Ω)

and let

> "$\sim\Box_{©}\Omega$" read "Ω is now-intentionally-causable by Joe."

Notice that (unlike "$\Box_{c}\beta$" and "$\sim\Box_{c}\beta$" from last chapter) "$\Box_{©}\Omega$" and "$\sim\Box_{©}\Omega$" do not entail that Ω is true. Ω's being not now-intentionally-causable by Joe does not entail that Ω is true, and Ω being now-intentionally-causable by Joe does not entail that Ω is true. Consequently, "$\Box_{©}\Omega \supset \Omega$" does not hold and "$\sim\Box_{©}\Omega \supset \Omega$" does not hold either.

Notice also this modal operator is slightly irregular. To see why, consider the following:

I will use "Ω" and "Γ" to represent any simple or complex logical proposition and "B" and "Q" to represent specific propositions. This version of the argument will obviously be speaking of Ω, Γ, B, and Q as being now-intentionally-causable by Joe, and in terms of Ω, Γ, B, and Q having causal influence themselves. But such

suggestions seem strange. We clearly do not think that Joe has any ***causal*** influence over propositions themselves. He certainly cannot cause propositions to exist and it would at least seem strange to suggest that Joe could "***cause*** a proposition's truth value" (although he is able to cause a state of affairs that would ***make*** a proposition true). Further, we do not think propositions themselves can have causal influence. Clearly the argument means to suggest something different; it means to suggest something about Joe's ability to cause a state of affairs that could, would or does make Ω, Γ, B, or Q true and to suggest something about such states of affair's causal influences. In other words, the argument is suggesting something about the causability/causal influence of those proposition's potential truth-makers (*i.e.,* it is suggesting something about the causability/causal influence of the states of affairs whose being actual could, would, or does make those propositions true). But, normally, modal operators do not modify states of affairs—they modify propositions—so it seems odd that a modal operator could accomplish this.

This is a way in which this modal operator is unconventional—but this is not an unmanageable obstacle. To solve this problem, we shall simply understand the causability modal operator in a certain way. When we see "$\Box_{©}\Omega$" and read it as "Ω is not-now-intentionally-causable by Joe" we shall simply understand that this means that "the state of affairs that is Ω's potential truth maker is not now-intentionally-causable by Joe." Further, when we see "$\sim\Box_{©}\Omega$" and read it as "Ω is now-intentionally-causable by Joe" we shall simply understand that this means that "the state of affairs that is Ω's potential truth-maker is now-intentionally-causable by Joe." Further, if it is ever suggested that Ω has causal influence, we shall understand this to

be the suggestion that the state of affairs that is Ω's potential truth-maker has causal influence. Perhaps further clarification can be made in this regard, but this understanding will be sufficient for our present purposes.

It must be noted that much more can be said about truth-makers and much more will be said about truth-makers in the next chapter. But I will assume that the reader now has a general conception of what truthmakers are, and this general conception will suffice for this chapter.

**3:2.1.3 – Version 1.0**

We are now prepared to lay out…

Causal Theological Fatalist Argument: Version 1.0

Where: "Q" reads: "Joe's body performs action X tomorrow"

"B" reads: "God's believed yesterday that 'Q'."

Call some action that Joe's body will perform tomorrow "X"

1) Joe freely decides to do X tomorrow only if $\sim\Box_{©}Q$.[5]
2) All past events are not now-intentionally causable[6]
3) B[7]
4) $\Box_{©}B$[8]
5) $\Box(B \supset Q)$[9]
6) $\Box_{©}(B \supset Q)$[10]

[5] *i.e.,* performing action X tomorrow is now-intentionally causable by Joe (by PIC).
[6] This follows by The Causal Law.
[7] *i.e.,* God believed yesterday "Joe's body performs action X tomorrow." (by God's omniscience)
[8] *i.e.,* it is not now-intentionally causable that God believed yesterday: "Joe's body performs action X tomorrow." (from 2 and 3)
[9] *i.e.,* God can have no false beliefs (*i.e.,* □(if God believes Q then Q is true) by God's essential omniscience)

7) If $\Box_{©}B$ & $\Box_{©}(B \supset Q)$ then $\Box_{©}Q$[11]

8) $\Box_{©}Q$[12]

9) It is false that Joe freely decides to do X tomorrow.[13]

We shall see in the next section that the transfer principle utilized in version 1.0 is invalid. However, our inquiry into this version will not end there. We will attempt to identify all of its obvious flaws and contrast a new stronger transfer principle that we can utilize to construct a stronger formulation of the argument.

**3:2.2 – Strengthening the Transfer Principle**

The transfer principle utilized in the problem above is as follows:

$TNP_{©}$

$\Box_{©}\Omega, \Box_{©}(\Omega \supset \Gamma) \therefore \Box_{©}\Gamma$

*i.e.,* if Joe cannot now-intentionally cause Ω, and Joe cannot now-intentionally cause $\Omega \supset \Gamma$, then Joe cannot now-intentionally cause Γ. Is such a principle valid?

**3:2.2.1 – Eliminating Tautologies**

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[10] This follows from 5. Generally I think it fairly intuitive to assert that if something is logical necessity it is not now-intentionally-causable. Perhaps there are exceptions—perhaps you can make a tautology true by creating a new object and thus creating new tautologies about that object—but I am not concerned with such exceptions here. Clearly, if it is logically necessary that "if God believes something then it is true," Joe does not, nor could he have, any causal influence over the state of affairs that makes this true; thus clearly "$\Box(\Omega \supset \Gamma) \supset \Box_{©}(\Omega \supset \Gamma)$" holds. This is similar to Van Inwagen's α Principle, which we shall discuss below, and justifies the move from 5 to 6.

[11] by $TNP_{©}$ - see below.

[12] *i.e.,* ,Joe's body performing action X tomorrow is not now-intentionally causable by Joe. (from 4,5 & 6)

[13] from 7 and 1

Notice that, if Γ is a tautology, since no one can intentionally cause tautologies to be true,[14] $\Box_{©}\Gamma$ is true. In fact, if Γ is a tautology, it is a tautology in every possible world thus $\Box_{©}\Gamma$ will be true in every possible world; *i.e.,* if Γ is a tautology, $\Box_{©}\Gamma$ will be a tautology as well. Since anything and everything entails that which is a tautology, $\Box_{©}\Omega$, $\Box_{©}(\Omega \supset \Gamma)$ will entail $\Box_{©}\Gamma$ (and will do so in every possible world). Thus, if Γ is a tautology, the inference suggested in $TNP_{©}$ is valid.

However, it is very clear that if an argument or principle is valid in this way, its validity is weak. Its validity is a sort of accidental validity—the kind possessed by arguments like "Kyle is a philosopher ∴ 1+1=2." This argument is valid, but not because "Kyle is a philosopher" is actually relevant to "1+1=2" in such a way that it guarantees the truth of "1+1=2"; it is valid simply because 1+1=2 is true in every analytically possible world and thus it will never be the case that "Kyle is a philosopher" is true, but 1+1=2 is false. In the same way, if Γ is a tautology, $\Box_{©}\Omega$, $\Box_{©}(\Omega \supset \Gamma)$ ∴ $\Box_{©}\Gamma$ is valid, but not because $\Box_{©}\Omega$, $\Box_{©}(\Omega \supset \Gamma)$ guarantees the truth of $\Box_{©}\Gamma$, but only because $\Box_{©}\Gamma$ is true in every possible world and thus it will never be the case that $\Box_{©}\Omega$, $\Box_{©}(\Omega \supset \Gamma)$ is true while $\Box_{©}\Gamma$ is false. Let us call such arguments and principles "merely analytic valid."

We certainly do not think that argument or principles that are "merely analytically valid" are good arguments or principles. Thus, the TNP that validates the logical moves of a severe theological fatalist argument cannot be merely

[14] As I mentioned above, it might be that one could create new objects and thus cause statements, including tautologies, about that new object to be true—and in this way it might be said that one could intentionally cause a tautology to be true. But once again, I am not concerned with such exceptions. I simply want to eliminate the possibility of $TNP_{©}$ being valid for trivial reason, and eliminating reference to tautologies in the above way will help in ensuring just that.

analytically valid. Clearly if they are, the argument is not severe at all. Thus, any demonstration that $TNP_{©}$ is valid will have to go beyond mere analytic validity. Further, we certainly do no want the proposition that is derived in the fatalist argument by using $TNP_{©}$ to be a tautology. If it were, accusations of the argument being merely analytic validity would abound.

Thus it is important to note, up front, that the validity of $TNP_{©}$ will not be defended in this way, nor will $TNP_{©}$ be used to derive a tautology in the fatalist argument. In this way, this version of the fatalist argument avoids the "mere analytic validity" objections.

**3:2.2.2 – Eliminating Contradictions**

$TNP_{©}$ can be shown to be invalid because of the fact that $\Box_{©}\Omega$ does not entail that $\Omega$ is true (*i.e.,* because $(\Box_{©}\Omega \supset \Omega)$ does not hold). Since $\Box_{©}\Omega$ does not entail that $\Omega$ is true, $\Omega$ in $TNP_{©}$ could be a contradiction. Thus consider the following counter example, which I shall call "the contradiction counter example":

"G&~G" is a contradiction. Clearly, since $\Omega$ does not have to be true in order for $\Box_{©}\Omega$ to be true, the following can, and in fact does hold:

$\Box_{©}(G\&\sim G)$

Since G&~G cannot be true, no state of affairs that would make G&~G true could be intentionally caused by Joe. Now, recall that, in first order logic, anything follows from a contradiction. In any formal proof, if one provisionally assumes a contradiction, one can simply provisionally assume the opposite of any statement ones wishes to show follows from that contradiction (call any such statement "Y"),

restate the contradiction, derive Y, and conclude that the contradiction entails Y.[15] But certainly Joe cannot cause the fact that this can be done in first order logic, so for any given statement Y, the following also holds:

$\Box_{©}[(G\&\sim G)\supset Y]$

And thus, if TNP$\Box_{©}$ is valid, then for any given Y, "$\Box_{©}$Y" holds.

This counter example allows us to object to TNP$_{©}$ in the following way. Since Y could be a statement about anything, the validity of TNP$_{©}$ would allow us to derive that Joe cannot intentionally cause anything simply from the fact that he cannot intentionally cause contradictions to be true. And, even though it might be true that Joe cannot intentionally cause anything (which would be the case if the revised version of this fatalist argument turns out to be valid), if it is true, we certainly do not think it is true because Joe cannot cause contradictions to be true. But if TNP$_{©}$ is valid, this would be exactly what we could derive. So clearly, the validity of TNP$_{©}$ must be rejected.

If we want a valid TNP, we will need to use an operator that is defined in such a way that it entails the truth of what it modified, so that it rules out the possibility of contradictions standing in for Ω (and thus avoids the contradiction counter example). What we shall call the "N'" operator will do this, and we will make this refinement in the next section.

### 3:2.2.3 – The Beta-Principle (TNPβ) and The Beta*-Principle (TNPβ*)

[15] For example, the following could appear in any proof:

| | | | |
|---|---|---|---|
| n) | G&~G | | PA |
| n+1) | | ~Y | PA |
| n+2) | | G&~G | n – restatement |
| n+3) | Y | | n+1, n+2 by ~ elimination |
| n+4) | (G&~G) ⊃ Y | | n – n+3 by ⊃ introduction |

To avoid the contradiction counter example, what we need is a modal operator that captures choice in terms of intentional causation that has truth built into it. Although it does not capture choice in terms of intentional causation, "the N operator" suggested by Van Inwagen (1975), is just such a modal operator. The N operator is defined as follows:

"N(Ω)" reads: "Ω is true, and no one has, or ever had, a choice about Ω."

In fact, the N operator even comes with its own transfer principle, one that (in 1975) van Inwagen said his intuitions suggested was valid: "The Beta Principle."

Beta-Principle (TNPβ):

N(Ω), N(Ω⊃Γ) ∴ (N)Γ

In our effort to find a new modal operator and TNP, the N operator and the Beta-Principle are a good starting place, but we cannot end our search here. Since 1975, van Inwagen himself has admitted that this principle is invalid, at the prompting of McKay and Johnson (1996) and their agglomeration counter example. Revisions to the N operator have been suggested by Van Inwagen, McKay and Johnson (which we will consider in detail later, along with the agglomeration counter example) but they are not in terms of intentional causation and will thus not be useful here. However, with their suggestions in mind, I will develop and offer my own

alternative modal operator which I consider to be the "strongest" now-intentional-causability modal operator.

In offering such an alternative, since we need to build truth into our operator to avoid the contradiction counter example and we already have a modal operator that defines choice in terms of intentional causation ($\Box_{©}$), we might be tempted to just "throw a truth condition" into the $\Box_{©}$ operator, and offer a re-definition of $\Box_{©}(\Omega)$ where "$\Box_{©}*(\Omega)$" reads: "Ω is true and Joe cannot now-intentionally cause Ω." However, we can do better than this. The notion utilized by the N operator is much stronger; $\Box_{©}*(\Omega)$ only suggests that Ω is <u>now</u> beyond of Joe's control but N(Ω) would suggest that Ω is <u>now, always has been, and always will</u> be outside of Joe's control. Clearly, we want some version of the N operator, if we want a stronger modal operator and transfer principle.

As McKay and Johnson point out, the word "choice" utilized in the definition of van Inwagen's N operator is ambiguous. But to get our desired result—a version of the N operator in terms of intentional causation (specifically Joe's intentional causal abilities)—we need only to define the word "choice" in the definition of the N operator in terms of Joes' intentional causal abilities. Thus, I suggest we utilize the N' operator.[16]

> "N'(Ω)" reads: "Ω is true and Ω's being true is not, will not and never has been intentionally causable by Joe."

[16] pronounced "N prime"

For shorthand, we might occasionally express "N'(Ω)" as: "Ω is true and Ω is never-intentionally causable by Joe").

We can now construct the following transfer principle:

The Beta* Principle (TNPβ*)

N'(Ω), N'(Ω⊃Γ) ∴ N'(Γ)

And at first glace, it might seem that we have all we need. Certainly, the N operator seems to be strong enough. If Γ is not, will not, and never has been intentionally causable by Joe, Γ certainly is not *now-intentionally causable* by Joe (we will introduce a rule for this in section 3:2.2.5). So, if we can establish that God's past beliefs and essential omniscience are, were, and always will be outside of Joe's causal influence (which they certainly seem to be) and TNPβ* is valid, we clearly can develop the severe fatalist argument we have been looking for. And TNPβ* certainly seems valid; if Ω and Ω⊃Γ are both true but completely outside of Joe's intentional causal influence, it certainly seems that Γ would be as well.

But looks can be deceiving. We will not have to do any more tinkering with N', but TNPβ* still needs to undergo one more refinement.

**3:2.2.4 – Temporal Sensitivity**

Zagzebski (1991) and O'Connor (2000) point out that if Γ refers to (is about) an event before Ω, TNPβ* is invalid. To avoid this, we will need to make the principle temporally sensitive. Let us first turn to a counter example that

demonstrates this to be the case, and then we shall revise TNPβ* to be temporally sensitive.

Simple "backward tracking" counter examples can be used to invalidate TNPβ*. Consider a situation where Joe is beside a single radium atom, and Joe is aware of the radium and has a radium destroying machine (and knows how to use it). Let us call the time at which this is true, T1. Let us assume if left alone, the radium will decay at T2. Let us also assume that that Joe refrains from destroying the radium, and it is now T3. There are some things that are not, never have been and never will be intentionally causable by Joe in this instance. For instance, he cannot (and never could) intentionally cause the radium to decay at T2.[17] Let us call the proposition that expresses the radium decay at T2 "R." Consequently, N'(R) holds. Second, he cannot intentionally cause this fact: the radium must exist to decay. Consequently, he cannot (and never could) intentionally cause the fact that "If the radium decays at T2 then the radium is not destroyed at T1." Let "E" express "the radium is not destroyed at T1" and this conditional fact "R⊃E." Consequently, N'(R⊃E) holds. Thus, the following holds:

N'(R) & N'(R⊃E)

If TNPβ* is valid, N'(E) should hold. But clearly it does not. N'(E) reads: "E is true; and E's being true is not, will not and never has been intentionally causable by Joe." In other words, that the radium was not destroyed at T1 is true, and this fact is not,

[17] In fact, what makes quantum mechanics so strange is that this seems to be an uncaused event.

will not and never has been intentionally causable by Joe. But clearly, Joe could have destroyed the radium at T1 and consequently could have, and in fact did, intentionally cause the radium (*i.e.,* choose for the radium) not to be destroyed at T1. Clearly ~N'(E), is compatible with N'(R) & N'(R⊃E). Thus TNPβ* is invalid.

However, notice that the counter example works because of the temporal direction of the entailment in "R⊃E." What makes R true is an event at T2, but what makes E true is an event at T1. If we revise TNPβ* to be sensitive to temporal order such that what makes (or would make) Γ true cannot occur prior to what makes (or would make) Ω true, we can avoid such counter examples. To that end, I suggest the adoption the following convention and transfer principle:

Where: "Ω⊒Γ" reads: Ω⊃Γ, and the (potential) truth-maker for Γ is not temporally prior to the (potential) truth-maker for Ω.

The Beta-Prime Principle (TNPβ')

N'(Ω), N'(Ω⊒Γ) ∴ N'Γ

We might think that using such a convention will produce undesirable results. For example, since "Ω ⊃ Γ" can be true while both Ω and Γ are false, "Ω ⊒ Γ" might be trivially true in some circumstances and such circumstances might produce counter examples. Similarly, since contradictions entail anything, but are never true (and thus

never made true) statements like "G&~G ⊇ A&~A" might be considered true[18] and might be used to produce counterexamples.

But since we are only concerned with the validity of TNPβ', and since TNPβ' already contains N'(Ω), which guarantees the truth of Ω, the above circumstances are ruled out as possibilities. If N'(Ω) & N'(Ω⊇Γ) is true, then both Ω and Γ are true, and thus neither Ω nor Γ could be contradictions nor could "Ω⊇Γ" be true due to the fact that Ω and Γ are both false. In this way, such counter examples are avoided.

Additionally, since the N' operator has truth built into it, and thus in TNPβ' both Ω and Γ are true and thus have truthmakers, unless we are dealing with a Ω⊇Γ statement outside of the content of TNPβ', we can eliminate the word "potential" from the above definition of "Ω⊇Γ." Since both Ω and Γ have truthmakers that are not only potential, but actual, we can now simply say:

> "Ω⊇Γ" reads: Ω⊃Γ, and the truth-maker for Γ is not temporally prior to the truth-maker for Ω.[19]

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[18] Although it would be debatable.

[19] Some readers may find the following clarification unnecessary, but I feel it necessary to ensure that "all bases are covered." I now offer a clarification of what N'(Ω⊇Γ) means.

N'(Ω⊇Γ) reads: "Ω ⊃ Γ, and the truth-maker for Γ does not occur prior to the truth-maker for Ω, and this fact (the conjunction of these two previous facts) being true is not, will not and never has been intentionally causable by Joe."

But consider two events F and G. Suppose we think that F⊇G is true because F causes Joe's action which in turn causes G. In this situation, on a certain "weak" understanding, "N'(F⊇G)" could be considered false. One might say that Joe did cause "F⊃G" to be true in virtue of the fact that Joe's action "made the link" between F and G; further since Joe caused G after F occurred, Joe did cause G's truth-maker not to occur prior to F's truth-maker. In either case, (on this understanding) N'(F⊇G) would be false because Joe does intentionally cause some "aspect" of what makes F⊇G true.

Notice however that this weak understanding is undesirable; if we use this weak understanding, no non-question begging formulation of theological fatalism would be possible. For N'(B⊇Q) to be true, B, B⊃Q and Q would <u>all</u> have to be never-intentionally causable by Joe (*i.e.,* N'(B), N'(B⊃Q), N'(Q) would all have to be true); if Joe could (at any time) intentionally cause any of them, then (on this weak understanding) N'(B⊇Q) would be false because Joe would be able to intentionally cause some "aspect" of what makes B⊇Q to be true. Thus to assert N'(B⊇Q), one would already have to assume (among other things) that N'(Q) was true. Thus, if using TNPβ' and this weak

### 3:2.2.5 – The αN'-Principle and The N'-Rule

Before we move on, two more principles must be noted. Van Inwagen suggests the very useful and uncontroversial α-Principle which suggests: $\Box\Omega \supset N(\Omega)$. Likewise, we will utilize a similar principle for the N' operator (and all others operators like it).

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understanding, a severe formulation of theological fatalism will have to assume "N'(Q)" is true (it will have to do so to assume that N'(B⊇Q) is true). But this is exactly what (this section's version of) theological fatalism is supposed to establish! Thus any sound formulation (on this weak understanding) will beg the question.

To make this clear, let me be specific. On this weak understanding, N'(B⊇Q) would be true just when Joe could not now-intentionally cause any of the following: (1) God's past belief, (2) Joe's action tomorrow and (3) God's essential omniscience. But that Joe cannot cause (2) is exactly what the chapter's version of theological fatalism is supposed to establish! Such a formulation clearly begs the question.

Fortunately, I do not have this "weak" understanding in mind. First I assume that if Joe is to be the intentional cause of "G's truth maker not occurring before F's truth-maker" (*i.e.,* if Joe is to be the cause of their temporal order), Joe must intentionally cause both F and G's truth-maker and also intentionally cause them to occur when they do. Clearly this is not true in the first example, nor in the theological fatalist argument. Further if Joe is to be the cause of "F⊃G" then Joe must cause *whatever is true of F* that makes F entail G. If (as in the first example) F⊃G because F causes Joe's action which in turn causes G, then Joe's action must cause *F to be such that it causes Joe's action* (which clearly Joe cannot do). This is also false of Joe and proposition B as used in the argument since Joe cannot cause God's essential omniscience.

Generally, we might say, for N'(Ω⊇Γ) to be false, Joe must be able to cause every "aspect" that makes Ω⊇Γ true. Put precisely, we can say (using our statement letters) that "N'(Ω⊇Γ)" reads: "(1) Ω ⊃ Γ, Γ's truth maker does not occur prior to Ω's truth-maker, and (2) either (a) Ω is not intentionally causable by Joe, (b) Γ is not intentionally causable by Joe or (c) "the content" of Ω is not intentionally causable by Joe (*i.e.,* Joe cannot cause whatever is true of Ω that makes Ω entail Γ, to be true of Ω. Notice that (a) or (b) being true would prevent Joe from intentionally causing their temporal order (Joe has got to cause them both to be responsible for their temporal order) and (c) being true would prevent Joe from intentionally causing Ω⊃Γ. Any one of these being true is enough to make N'(Ω⊇Γ) true.

Notice that, if (1) is met, as long as Joe's action occurs after Ω, N'(Ω⊇Γ) will be true because Joe will not be able to intentionally cause Ω (since Ω is prior to Joe's action), which will fulfill criteria (a).

To be sure this is clear, let us plug in the statements from the theological fatalist argument so we can clearly see why N'(B⊇Q) (in the upcoming formulations of theological fatalism) holds given this non-weak understanding. N'(B⊇Q) IFF (1) God's belief does entail that Joe's body will perform action X, and God does believe such and Joe's body performing action X does not occur prior to God's belief and (2) either (a) Joe can never-intentionally cause God's past belief or (b) Joe can never-intentionally cause his own action or (c) Joe can never-intentionally cause God's omniscience (God's omniscience being that which makes B⊃Q true). Even though they are both true, the truth of either (a) or (c) is enough to make N'(B⊇Q) true!

Notice that the truth of (b), while sufficient for the truth of N'(B⊇Q), is not required for the truth of N'(B⊇Q). This is fortunate since the truth of (b) is exactly what this version will try to establish. It not being required is what prevents the upcoming formulation from begging the question.

The N'α-Principle.

$\Box\Omega \supset N'\Omega$

Likewise, if Ω is true; and Ω's being true is not, will not and never has been intentionally causable by Joe; clearly Ω is not now-intentionally-causable by Joe. Thus, we can establish:

The N'-Rule

$N'(\Omega) \supset \Box_{©}(\Omega)$

Let us now examine how we can utilize TNPβ' to construct a new "more severe" theological fatalist argument.

**3:2.3 – The First Causal Version Revised: (Version 1.1)**

The newly formed causation version of the theological argument can be stated as:

Where: "Q" reads: "Joe's body performs action X tomorrow"

"B" reads: "God's believed yesterday that 'Q'."

Call some action Joe's body will perform tomorrow action X

1) Joe freely decides to do action X tomorrow only if $\sim\Box_{©}Q$[20]

2) $N'(B)$[21]

[20] PIC

3) $N'(B \supseteq Q)$[22]

4) If $N'(B)$ & $N'(B \supseteq Q)$ then $N'(Q)$[23]

5) $N'(Q)$[24]

6) $\Box_{©}Q$[25]

7) Therefore, it is false that Joe freely decides to do action X tomorrow.[26]

The work of the argument is mainly done in (2) through (5); and the move to (5) from (2),(3), and (4) is justified by TNPβ'. Consequently, the validity of the argument turns on the validity of TNPβ'. We will now see that TNPβ' is not valid.

### 3:2.4 – The Invalidity of TNPβ'

In this section we will see version 1.1 to be non-threatening since its transfer principle (TNPβ') is invalid.

#### 3:2.4.1 – Why TNPβ' is Invalid

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[21] *i.e.,* God believed yesterday "Joe's body will perform action X tomorrow" and this being true is not, will not and never has been intentionally causable by Joe. Presumably, if Joe could cause such a thing, it would be by performing action X tomorrow, but since the performance of X will occur tomorrow, but God's belief occurred yesterday, and backwards causation is impossible, Joe cannot and never could intentionally cause God's past belief. Of course, to attempt to fix this problem, one could simply deny the impossibility of backwards causation. But, in addition to the controversial metaphysical implications this raises, as we shall see in the next chapter, whereas this might undercut this version of the problem, this suggestion will not serve to solve other causal versions of the problem. We will turn to this at the end of chapter 4.

[22] *i.e.,* It is the case that *if God believed yesterday* "Joe's body will perform action X tomorrow" *then "Joe's body will perform action X tomorrow" is true, and the truth-maker for the latter is not prior to the truth-maker of the former;* and this being true is not, will not and never has been intentionally causable by Joe.

[23] By TNPβ'

[24] *i.e.,* Joe's body will perform action X and this being true is not, will not and never has been intentionally causable by Joe. (from 2,3 and 4)

[25] Joe's body performing action X tomorrow is not now-intentionally causable by Joe. (from 5 by the N'-rule)

[26] From 1 and 6

We shall turn to a specific counter example that falsifies TNPβ' in a moment, but before we do it will be helpful to examine why we should suspect TNPβ' to be invalid in the first place. Recall that TNPβ' suggests that "N'(Ω) and N'(Ω⊇Γ)" entails "N'(Γ)"; *i.e.,* it suggests that the fact that Ω has always been (and always will be) outside Joe's intentional causal influence, and the fact that Ω⊇Γ has always been (and always will be) outside of Joe's intentional causal influence, entails that Γ has always been (and always will be) outside of Joe's intentional causal influence. One might think this sounds right, because one might understand (Ω⊇Γ) to suggest that Ω plays a causal role in bringing about Γ, and conclude that since Joe cannot intentionally cause Ω, he cannot intentionally cause Γ. But Ω⊇Γ tells us nothing of the kind; it just tells us that Ω is prior to Γ and <u>logically</u> entails Ω; logical entailment and "priority in time" does not allow us to derive causation and thus Ω⊇Γ tells us nothing about the cause of Γ. Consequently, it does not tell us anything about Joe's causal relationship to Γ; it does not tell us that he is the intentional cause of Γ, but it certainly does not tell us that he is not. Since Ω and Ω⊇Γ do not tell us about the cause of Γ, Joe being the cause of Γ is not ruled out by him being unable to have any causal influence over Ω and Ω⊇Γ.

Rice (2005) captures this quite well. As he wonders about revising a principle quite similar to TNPβ' [*i.e.,* (TNCP) Not Causable p, Nec (p⊃q) ∴ Not Causable q) to make it valid, he says:

> Is there…a plausible revision…? I doubt it. As it stands it is totally implausible. For suppose that p is true, and is a statement of a set of sufficient conditions in the past for q, and that q is about the future. Then although p may be uncausable now, we shall expect q to be causable now, since we shall expect p to be setoff sufficient condition for some proposition r which is true of the present, and is capable of causing q. This will indeed always be the case

> if causal chains are continuous in time. Again, suppose that p is a statement about the past which is false. Then, the fact that its truth would have necessitated the truth of q, will hardly mean that q is not causable. Why should there not be other ways of causing q which do not rely on the truth of p? (p. 366)

In short, even though N'(Ω) and N'(Ω⊃Γ) allow us to deduce that Γ will be caused, they do not entail that Joe cannot "go around" Ω and find some other way of brining it about. But I do not want to rely just on intuition and doubts; I want to be certain. Let us turn to a counter example which shows TNPβ' to be invalid.

#### 3:2.4.2 – The Car Lock Counter Example

Here we will see an example of a case where N'(Ω) and N'(Ω⊇Γ) are both true, but Joe can still intentionally cause Γ and thus N'(Γ) is false.

Usually when counter examples are presented by philosophers, there are numerous "small defects" in the example that interfere with the argument. I have taken great pains to anticipate such objections so I can clearly show a situation where N'(Ω) and N'(Ω⊇Γ) is true but N'(Γ) is false. As a result, the counter example is a bit complex.

##### 3:2.4.2.1 – The Example

The internal workings of my car are wired in such a way that the following is true: after you turn off the ignition and open one (or all) of the doors—once the last door is closed, the doors will automatically lock after five seconds. This gave me an idea; consider this "over-determination" counter example:

> *Joe is innocently walking thru a parking lot, where some technicians are constructing a car on a portable trailer. Unknown to Joe, they are designing the car to lock its door automatically, five seconds after one shuts the last*

*door—even if you open one of the doors again.*[27] *Also, unknown to Joe, they want to give him the opportunity to lock its doors for the first time, once they have constructed it. As a result, they have taken steps to ensure that Joe is nearby when they complete it. Joe is a good distance away from the car, but still in the parking lot, when they complete the construction of the car. All of them leave but one. He is a large man, who can easily make sure Joe is at whatever distance from the car he desires that Joe be. He shuts the doors, and then runs toward Joe saying "You can lock the doors for the first time, if you hurry!" 3.1 seconds after he has shut the door, he shoves a remote to the car into Joe's hand that only has one button: "Lock."*

To make clear what I have in mind here, let me explicate the following assumptions:

- Joe has in his hand, a hand held remote to the car that will lock (but not unlock) the car's doors
- The car's computer, remote and remote sensors are working properly.
- Joe is close enough to lock the door with the remote but too far away from the car to prevent it from locking. (And this would have been true regardless of Joe's past actions; the technicians would have made sure to complete the car with Joe nearby, and would have dragged Joe away from the car if Joe had been close enough, when they completed it, to prevent the doors from locking.[28] )
- The car's computer is set up in the following way: when the last door is shut, it is programmed to lock in 5 seconds, unless it receives an input from the remote sensor.

[27] This is not like most cars (like mine). If you open the doors before the 5 seconds is up, the doors will not lock. I am leaving this out to simplify the counter example.

[28] I assume that someone could think of some way that Joe could prevent the car from not locking in the 1.9 seconds left, if Joe was just close enough to the car. That is why I have stipulated that the technician will prevent Joe from being close enough to do so.

One more clarification is needed: A very accurate description of the way the computer is programmed. When you shut the door, the computer starts a timer. Let us call the moment in time exactly one second after the door is shut "t1." At t1, the computer simultaneously performs two checks; a timer check and a remote input check. The "timer check" command is defined as follows: *if the computer reads "5 seconds has passed" on the timer it locks the doors, if it reads anything else, it does nothing.* The "input check" command is defined as follows: *if the computer recognizes that it has received an input from the remote sensor, it does nothing in that second, but exactly one second later it locks the doors (instead of performing a timer and input check); if it recognizes no input, it does nothing.* It performs these checks at t1, t2, t3, and t4, but only performs the timer check at T5. (Of course, the computer is programmed to perform no more checks at all, once the doors are locked.)

Let us call the moment Joe is handed the remote, t3.1. In this situation, the following is the case:

(a) At t3.1 the car is wired in a particular way (such that, given the state of the world at t.31, it will perform a timer check at t5 and lock the doors, unless Joe presses the remote button before it performs its checks at t4.) Let us call the proposition that expresses this fact "W".

(b) It is also true that Joe never has and never will have intentional causal power over W (since the car was just constructed, and Joe never could have had a causal influence on it).

(c) At t3.1 it is also the case that Joe could not prevent the doors from locking, since Joe has a remote that only locks the doors and Joe is too far

away from the car to prevent it from locking. Let us call the proposition that expresses this fact "F".

(d) It is also the case that Joe never has and never will have any intentional causal power over F (the technicians would have made sure that Joe had the remote, was close enough to lock it with the remote, but far enough to not be able to prevent it from locking).

(e) It is also the case the conjunction "W and F" entails that the doors will lock at T5 (either Joe will press the remote before t4, or he won't. If he does, the computer will recognize the remote input at t4 and lock at t5. If he does not the computer will perform a timer check at t5 and lock the door at t5. Let us call the proposition that expresses the fact that the doors will lock at T5 "L".

(f) And again, Joe never has and never will have any causal power over the fact that "W and F" entails "L."

Given these facts, it is clear that the following is true:

(1) W is true, and F is true, Joe never had and never will have any causal power over these facts.

(2) It is also true that: the truth of conjunction "W & F" entails the truth of L; and Joe never has and never will have any causal power over the fact that this entailment relation is true.

We can symbolize our statements like this:

$N'(W\&F), N'[(W\&F)\supseteq L]$

If the TNPβ' is valid, the following would be the case: N'(L). That is, it would be true that the doors would lock at t5, and that Joe could play no intentional causal role in the doors locking at t5. However, it seems clear that this is not the case. If Joe presses the button on the remote before t4, the computer would recognize this and lock the doors at t5; Joe would be intentionally causing the doors to lock at t5. And it is clear that Joe does have the ability to press the button, if Joe chooses to do so. So Joe does have causal power over L, and therefore N'(L) is false.

This counter example makes it clear that TNPβ' is not valid: Since "N'(W&P) and N'[(W&P)⊇L]" does not guarantee the truth of "N'(L)", it is possible that N'(Ω) and N'(Ω⊇Γ) can both be true while N'(Γ) is false and thus TNPβ' is invalid.

**3:2.4.2.2 – The "Event Individuation Reply"**

I will now consider an objection to my counter example that I call the "event individuation argument." It actually can take two forms; a weak and a strong. I will consider the weak form first.

**3:2.4.2.2.1 – The Weak Objection**

The weaker objection proclaims that I have failed to recognize that there are actually two separate events that can possibly take place in the counter example. Roughly put, one event is the door locking automatically, the other is the door locking via the remote. And neglecting to recognize this supposedly invalidates my counter example.

Since it is not straightforwardly clear why this invalidates the counter example, let me clarify. My counter example could be expressed as such:

(1) N'(W & F),

(2) N'[(W & F) ⊇ "the car doors will lock at t5"]

but it is not the case that: (3) N'("the car doors will lock at t5")

However, (2) is ambiguous. "W & F" are supposed to entail that some individual event will happen. However, "The car doors will lock at T5" is not specific enough to really count as an individual event. Events are individuated by their causal factors; thus "the doors locking automatically at t5", and "Joe's locking of the doors by the remote at t5" are actually separate events. So (2) really is not a "proper proposition" because its consequent is not one of these events. To be a proper proposition, (2) would have to be something like:

(2*) N'[(W&F) ⊇ "the car doors will lock at t5 automatically"]

or

(2') N'[(W&F) ⊇ "Joe will cause the doors to lock at t5 by pressing the remote button"]

But of course, both (2*) and (2') are both false (because Joe can either use or not use the remote). Thus, in suggesting that (W&F) entails something that is not a specific individual event, the counter example has done something improper, and thus does not demonstrate the invalidity of TNPβ'.

There are two things to say about this objection.

The first is regarding whether or not there really are two separate possible events. If Joe does press the remote button, the computer will lock the doors at t5. If

Joe does not press the remote, the computer will lock the doors at t5. The closest difference between the events is the reason why the computer is locking at t5 (one is the result of doing a remote check at t4, the other is a result of doing a timer check at t5).[29] However, it is unclear that such a slight difference could individuate the events. We do think that my walking into class at 3:00pm (on a certain day) is the same event, regardless of whether or not I rode my bike or drove to class. In the same way, we should think that the event of the computer locking the doors at t5 is the same event, regardless of why the computer is locking them.

Secondly it is not clear, even if they are separate events, that (2) is an improper proposition. Why must "W&F" entail a specific individual event, in order for (2) to be "proper"? Entailment relations exist between propositions. Propositions do not have to express events, they can express facts or states of the world too (*e.g.,* "There is a car in the lot"). And it certainly is the case that propositions about facts can entail other propositions about facts (*e.g.*, "Joe is in the lot" entails that "there is a person in the lot"). It also seems clear that "W and F" and "the car doors will lock at t5" are both propositions that express facts. So it seems clear that, unless one is willing to redefine what a proposition is or what constitutes entailment, W&F could entail L.

Further, it seems clear that W&F does entail L. Let us call the proposition "The car doors will lock at t5 automatically" "E1" and let us call the proposition "Joe will cause the doors to lock at t5 by pressing the remote button" "E2." The following is obviously true:

[29] The only physical difference in the car between the two events would be some slight circuitry deviations.

(W&F) ⊇ (E1 v E2)

Further, "Joe will lock the doors or they will lock automatically" entails that "the doors will lock." That is:

(E1 v E2) ⊇ L

So unless one wants to deny some other (even more basic) "transitivity truth transfer principle," it seems that one would have to admit that "(W&F)⊇L" is not only proper, but also true.

Put simply, in order for a proposition that takes this form "(X&Y)⊇Z" to be proper (and true), Z does not have to be a proposition that expresses the occurrence of a specific event. It can express a more general fact, like "the doors will lock at t5." This is what (2) does. Thus (2) is proper, and the counter example sticks!

**3:2.4.2.2.2 – The Strong Objection**

The stronger objection is similar. It relies on its own counter example to accuse me of pulling a "trick" in my counter example. Presumably this counter example would not invalidate TNPβ'.

(4) N'(W&F)

(5) N'[(W&F) ⊇ "something will happen in the parking lot at t5"]

it is false that:

(6) N'(" something will happen in the parking lot at t5")

This counter example follows the same form, but it seems that something has gone wrong. (5) is true—and it is so for similar reasons that (2) is true.[30] Since W&F entail that the car door will lock at t5, and since the car is in the parking lot, it does

[30] "Something will happen in the parking lot at t5" is a proposition expressing a fact that is entailed by the proposition "W and F".

also entail that something will happen in the parking lot at t5. And it is also clear that (6) is false, for Joe can play a causal role in making many different kinds of things happen in the parking lot at t5, *e.g.* Joe can scream, jump up and down, pick a fight with the technician, etc.

However, it seems this counter example has "cheated" somehow. The consequent of the entailment in (5) does not specify a particular event. What it suggests is that (W&F) entails something that could be made true by the happening of many different events. It "paints with such a broad stoke" that is seems to make (6) trivially false.

So one might object: "Of course you have control over *something* happening in the parking lot. But we really do not care about these 'cheating' cases of yours where you can make the consequent true by doing a wide variety of actions. We want to know about cases where the consequent of the entailment is a specific event![31] Your counter example is not like this. The 'L' in N'[(W&F)⊇L] is not a specific event—you cheated!"

There are a few replies to this stronger response:

First, it is not clear that it is even possible to cheat. It seems that a truly valid principle would hold up to even these crazy "cheating" counter examples. Consider a potential Nec-Principle counter example:

Nec(W&F)

Nec[(W&F) ⊇ "something will happen at t5"]

[31] *i.e.,* where the "Γ" in N'(Ω⊇Γ) is something that can only have one causal history.

It does not follow that Nec "something will happen at t5"

Obviously, this counter example fails. No matter how "broad" the consequent of the second premise is, the conclusion will always follow. And it seems that this fact is a consequence of the principle's validity. So isn't it the case that if TNPβ' is valid, it would stand up to even the broad counter examples? It seems so.

Second, there are consequences that this position is forced to, that seem plainly false. The way I have supposedly "cheated" is by making (2)'s consequent something that can be made true by more than one individual event. However, if I cannot do such a thing in my counter example, it would seem that any similar proposition would be equally "improper." But this would mean that there are a number of instances of "valid every-day reasoning" that would in fact be invalid. For example, the following line of reasoning would be improper.

Steve reasons:

*"Either Bob or Nancy was the last one who left the room. Both Bob and Nancy would have turned off the light on their way out. So I do not need to go see if the light is on, because I know it was turned off."*

But in the same way that I apparently did, Steve has cheated. He assumes that "either Bob or Sue left the room" entails that "the light is turned off." But "the light is turned off" is not an individual event—it has more than one possible causal history—it could be caused by Bob or Nancy. But the difference between the possible causal histories of E1 and E2, that supposedly individuates them, is even

slighter. Thus if I am not allowed (2), Steve should not be allowed his entailment either; and thus Steve should have to get up and see if the light is on.

Third, this stronger position would also entail that a number of "valid philosophical arguments" would be "improper." Consider a simple "first cause" argument where:

E = "Every event has a cause"

I = "There can be an infinite chain of causation"

C = "There must be a first event that is the first cause."

A premise in such an argument would be:

(7) (E&~I)⊃C

Even though "C" is a proposition about the first cause, "C" could be made true by the happening of any number of events; God could create in a number of ways, the big bang could happen in a number of ways, etc. This being the case, it would seem that if I am not allowed (2), (7) should not be allowed either. But, even though the whole first cause argument itself might not be severe, at the least it is clear that the entailment move in (7) is not an instance of "cheating."

So it seems that unless we are willing to redefine entailment, and consequently throw away a lot of "reasoning" and arguments that in that past have been thought to be plainly "proper," we must accept the counter example, and conclude that TNPβ' is invalid.

Consequently, we can conclusion that version 1.1 of the theological fatalist argument is not severe.

### 3:3 – Can Joe Refrain?

#### 3:3.1 – The Motivation for a New Version (Version 2.0)

That Joe can still cause his future actions even though he cannot cause the prior event of God having infallible beliefs about his future actions should not be too surprising. After all, given how God's omniscience is classically conceived, I might have just as easily begun the argument by suggesting that "God infallibly believed yesterday that Joe would intentionally cause his body to perform action X tomorrow."[32] If so, it might have been obvious that Joe's inability to have causal influence on past divine belief and essential omniscience does not keep him from intentionally causing his body to perform the action it will perform. God's past belief itself would have entailed that Joe was going to intentionally cause his future action.

In fact, if I would have begun the argument like this, we might have been inclined to draw a different conclusion. Joe's inability to ever have any causal influence on God's past beliefs indicates, not that Joe cannot intentionally cause his own future actions, but that he cannot refrain from intentionally causing the future actions that he will intentionally cause. Thus, it is to the causal version of the argument formulated in terms of "Joe's inability to refrain" that we now turn.

---

[32] Of course, my suggestion here might be on par with starting the argument by suggesting that "God knew yesterday that Joe would freely decide to do X tomorrow" and trying to show that the argument does not allow us to draw a fatalist conclusion in this way. This move clearly begs the question, by assuming that God could foreknow that Joe is free. That foreknowledge is compatible with free will is exactly what the argument is attempting to show, thus assuming it in a premise clearly begs the question. But, since "intentionally causing X" is only a necessary condition for free will, assuming that God believes that Joe intentionally causes X does not assume that Joe is free and thus does not assume that foreknowledge is compatible with free will in this way. Thus I suggest that my move here does not make the same mistake and these two arguments are not on par. But even if one does think the arguments are on par, this does not matter. I have clearly shown that TNPβ' is invalid, and it is time to move on to the suggestions of this section.

Van Inwagen would probably argue that TNPβ' is not an accurate representation of what he intended with his original Beta Principle. As McKay and Johnson argue, as they point out that "choice" is ambiguous in Van Inwagen's Beta principle, Van Inwagen really intends for N(A) to read "A is true and no one can or could choose to make it the case that ~A." "…that is the interpretation that captures the motivating concept 'could have done otherwise' or 'could have chosen to do otherwise'." (McKay and Johnson, p. 116). Let us call this revised van Inwagen operator " N''[33] " and the corresponding Principle "The Beta''-Principle."

Keeping in line with the suggestions of PAP, and the topic of this chapter (intentional causability), we need to construct a version of the argument that (roughly put) suggests that it is not now-intentionally causable for Joe to not decide to do X. To do so, we will need a new modal operator and a new TNP.

For the latter two tasks, one might think that N'' and The Beta''-Principle would suffice—but they will not. There are two reasons why. First, N'' is not in terms of intentional causation, so it will not be useful for this chapter. Second McKay and Johnson show (and van Inwagen later agrees) that The Beta''-Principle is invalid.

But all is not lost; the word "choose" in the definition of the N'' operator is still ambiguous. By un-ambiguating the word "choose" and defining it in terms of Joe's intentional causal ability, we can get exactly what we need: an intentional causation modal operator that we can use to create a new TNP—a TNP that has not yet been shown to be invalid.

[33] pronounced "N double prime"

### 3:3.2 – A New PAP and TNP: PAP$_{©}$ and TNP$\beta_{©}$

But before we turn to defining a new modal operator and a new TNP, we will need a new PAP. McKay and Johnson suggest that "choosing to make it the case that ~A" captures what it is to "be able to (choose/decide to) do otherwise"—and they seem to be right. But recall that our original version of PAP suggests that freedom requires, not that it must be possible* for Joe to decide not to do X (*i.e.,* to decide otherwise), but that it must be possible* for Joe to not decide to do X. If articulated in terms of intentional causation, PAP would suggest that to freely decide to do action X, it must be compatible with the laws of nature, logic and the past that Joe refrain from intentionally-causing action X.

But notice that he could refrain in two possible ways. Suppose that Joe will freely decide to kill Jane tomorrow and thus will intentionally cause her death. Supposing he is free, he is able to refrain from intentionally causing her death in that he could decide to not kill Jane and thus intentionally cause it to be the case that Jane is not killed by him. But he would also refrain from intentionally causing her death if he does not complete the decision process; *i.e.,* by not making a decision at all regarding whether or not to kill Jane, Joe could refrain from deciding to kill Jane. In this way he does not intentionally cause her death, but also does not form the intention of not killing Jane and thus does not intentionally not kill her (*i.e.,* he does not decide not to kill Jane).

Alternately, suppose that Joe will freely decide not to kill Jane tomorrow and thus will intentionally cause it to be the case that Jane is not killed by him. If he is free, he is able to refrain from doing so by deciding to kill Jane and thus intentionally

causing her death. But he is also able to refrain from doing so by not completing the decision process—by not deciding at all. In this way he forms no intention about causing her death and thus does not intentionally cause it to be the case that Jane is not killed by him. In such a circumstance, even though he does something that leads to her not being killed by him—he does not complete the decision process—he does not specifically form any intention regarding whether or not to kill her and in this way Joe does not decide not to kill Jane.

Clearly, the ability to refrain requires to ability to do at least one of these things: either deciding to do otherwise or not deciding at all. In terms of intentional causability, to have the ability to refrain, one must have either the ability to intentionally cause ~X or the ability to neither intentionally cause X nor ~X.

Notice however that, even when Joe refrains from making a decision regarding X, there is still decision making being done by Joe; he is deciding to suspend or avoid a final decision regarding X. Since making a decision implies intentional causation, he must be intentionally causing something. And what he is intentionally causing when he makes no decision regarding X should be clear: **he is intentionally causing it to be the case that "Joe does not decide to do (*i.e.*, intentionally cause) X** and Joe does not decide to do (*i.e.,* intentionally cause) ~X." However, notice also that, if Joe were to intentionally cause ~X, he would again be **intentionally causing it to be the case that "Joe does not decide to do (*i.e.*, intentionally cause) X**." Thus, when Joe "refrains," either by a decision to do otherwise or by suspending decision, he is *intentionally causing it to be the case that "Joe does not decide to do X*." Thus we can conclude the following: only if Joe can

intentionally cause "Joe decides to do X" to be false, is Joe able to either decide to do otherwise or not decide at all—*i.e.,* only in that circumstance is he able to refrain.

Thus, we can now articulate the PAP that will be useful for this version of the argument:

> PAP$_{©}$: Joe freely decides to do X only if *"Joe decides to do X" being false* is now-intentionally causable by Joe. [34]

We can restate PAP$_{©}$ with some of our old operators. Recall:

> $\Box_{©}(\Omega)$ reads: "Ω being true is not now-intentionally causable by Joe"
>
> $\sim\Box_{©}(\Omega)$ reads: "Ω being true is now-intentionally causable by Joe"
>
> D reads: "Joe decides to do X"

> PAP$_{©}$: Joe freely decides to do X only if $\sim\Box_{©}(\sim D)$

We can now turn to defining our new operator, and new TNP. Recall:

[34] For those familiar with Frankfurt counter examples, it is important to note that, in this section, I am ignoring the possibility of a Frankfurt type machine that "kicks in" before any decision is made. I do this for the following reason: It is controversial whether or not any such machine could exist. Some argue that a Frankfurt machine could not know it needed to be activated until after Joe has preformed some mental action equivalent to a decision that would indicate that he was not going to kill Jane. Thus it might be that, even in Frankfurt counter examples, Joe is still able to refrain from killing Jane by doing something (equivalent to a decision) that would make the machine kick in. If this is the case, Joe would still be intentionally causing it to be the case that "Joe killed Jane" was false and thus, even in a Frankfurt counter example, he would still have the abilities described here by PAP$_{©}$. Examining this issue fully here in the body of the text would complicate things needlessly. In chapter 6, we will consider the possibility of this version of PAP actually being false by examining this "highly controversial" type of Frankfurt counter example.

N’(Ω) reads: “Ω is true and Ω’s being true is not, will not and never has been intentionally causable by Joe.”

We shall now also suggest:

$N_{©}$(Ω): “Ω is true and Ω’s <u>being false</u> is not, will not, and never has been intentionally causable by Joe. (*i.e.,* Ω & N’(~Ω)).

TNP$\beta_{©}$:

$N_{©}$ (Ω), $N_{©}$ (Ω⊒Γ) ∴ $N_{©}$ (Γ)

**3:3.3 – Two New Rules**

We need to introduce and remind ourselves of a few rules before we continue. These will help us to formulate our new version, and also help us formulate a counter example. First, recall the N’-Rule:

N’-Rule

N’Ω ⊃ □$_{©}$Ω

*i.e.,* if Ω being true is not, will not, and never has been intentionally causable by Joe, then Ω being true is not now-intentionally causable by Joe.

Since, as we saw in the last section, $N_{©}$(Ω) is equivalent to “Ω & N’(~Ω),” we can also formulate the following rule:

$N_{©}$- rule:

$N_{©}(\Omega) \equiv (\Omega \ \& \ N'(\sim\Omega))$

*i.e.,* $N_{©}(\Omega)$ IFF $\Omega$ is true, $\sim\Omega$'s being true is not, will not, and never has been intentionally causable by Joe. We can also introduce an $\alpha$-principle for the $N_{©}$ operator.

$N_{©}\alpha$-Principle:

$\Box\Omega \supset N_{©}(\Omega)$[35]

If $\Omega$ is logically necessary, then $\Omega$ is true and Joe cannot intentionally cause $\Omega$ to be false.

### 3:3.4 – The "Refraining" Formulation of the Causal Argument (Version 2.0)

We are now prepared to formulate our new version of the argument. We can do so in almost pure symbolization:

Where: "D" reads: "Joe decides to do X"

"B" reads: "God's believed yesterday that 'D'."

[35] Once again, the reader may object to this rule, thinking that when one creates a new object, one creates new logical truths about that object, and thus even though something is a logical truth, Joe might be able to intentionally cause that logical truth. Again, I find this dubious, but it should be irrelevant. In the cases that I apply this rule, it shall be applied to logical truths over which Joe clearly does, will, and has no intentional causal influence.

Call some action Joe will decide to do tomorrow X

1) Joe freely decides to do X tomorrow only if $\sim\Box_{©}\sim D$[36]

2) $N_{©}(B)$[37]

3) $N_{©}(B \supset D)$[38]

4) $N_{©}(D)$[39]

5) D & N'~D[40]

6) N'~D[41]

7) $\Box_{©}\sim D$ [42]

8) Therefore it is false that Joe freely decides to do X tomorrow[43]

The argument clearly hinges on the validity of $TNP\beta_{©}$, which justifies the move from 2 and 3 to 4. We will now see that $TNP\beta_{©}$ is invalid.

### 3:3.5 – The Invalidity of $TNP\beta_{©}$; The Agglomeration Counter Example

#### 3:3.5.1 – The Set Up

McKay and Johnson's agglomeration counterexample invalidates (what I called above) van Inwagen's N''-Principle. A similar counter example will serve to invalidate the $TNP\beta_{©}$.

Assume that there is a coin, call it C, that Joe could have tossed but did not, and that now is destroyed. The following is true:

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[36] $PAP_{©}$
[37] From the non-causability of the past along with God's omniscience
[38] From God's essential omniscience
[39] from $TNP\beta_{©}$ and 2 and 3
[40] from 4 and $N_{©}$-Rule
[41] From 5 by & elimination
[42] From 6 by the N'-Rule
[43] From 1 and 7 by C≡D,~D ∴~C

Where: "H" reads: "C came up heads"

$N_{©}$~H

Recall, $N_{©}$~H would be symbolized: "~H & N'(H)". In English, "It is true that C did not come up heads, and "C came up heads" being true is not, will not, and never has been intentionally causable by Joe. This is the case because Joe can intentionally flip the coin, but cannot intentionally cause (choose for) the coin to come up heads. For similar reasons, the following is also true:

Where: "T" reads: "C came up tails."

$N_{©}$~T

These two statements shall be the first two premises of our agglomeration counter example.

**3:3.5.2 – The ⊇ Rules**

I shall assume that it is uncontroversial to suggest the following: If a statement such as "Ω⊃Γ" is true, if both Ω and Γ only involve statements regarding coin C not being flipped, Ω⊇Γ will also be true because Γ's truth-maker will not precede Ω's truth-maker. For instance, take the statement "~H⊃[~T⊃(~H&~T)]" It would seem straight forwardly false to suggest that the truth maker for "~T⊃(~H&~T)" occurred before the truth-maker for "~H." Since they both involve statements regarding coin C, it would seem clearly to be the case that their truthmakers are going to at least be simultaneous. Our conclusion here can be

bolstered by simply examining the statement itself. The truth of "If no tails, then neither heads nor tails" couldn't be true unless "no heads" was also true—the occurrence of ~H's truthmaker would seems to at least be simultaneous, if not precede, the truth of ~T⊃(~H&~T). Thus clearly, if "~H⊃[~T⊃(~H&~T)]" holds, so too does "~H⊇[~T⊃(~H&~T)]." Let us call this:

⊇ Rule 1

~H⊃[~T⊃(~H&~T)] ∴ ~H⊇[~T⊃(~H&~T)]

Additionally, take the statement "~T⊃(~H&~T)." If this statement is true, since both the antecedent and concequent involve statements regarding coin C, "~T⊇(~H&~T)" would seem to be true as well. Again, let us bolster our conclusion by looking at the statement specifically. The truth of "neither heads nor tails" would require the truth of "no tails," thus the occurrence of ~T's truth maker would seem to at least be simultaneous, if not precede, the truth of truth-maker of (~H&~T). Thus clearly, if "[~T⊃(~H&~T)]" holds, so too does "[~T⊇(~H&~T)]." Let us call this:

⊇ Rule 2

[~T⊃(~H&~T)]" ∴ "[~T⊇(~H&~T)]"

### 3:3.5.3 – The Agglomeration Counter Example

We can now construct the following counter example:

1) $N_{©}{\sim}H$

2) $N_{©}{\sim}T$

3) $\Box\{{\sim}H\supset[{\sim}T\supset({\sim}H\&{\sim}T)]\}$ A logical truth

4) $N_{©}\{{\sim}H\supset[{\sim}T\supset({\sim}H\&{\sim}T)]\}$[44] from 3 by the $N_{©}\alpha$-Principle

5) $N_{©}\{{\sim}H\supseteq[{\sim}T\supset({\sim}H\&{\sim}T)]\}$ from 4 by $\supseteq$ rule 1

6) $N_{©}\ [{\sim}T\supset({\sim}H\&{\sim}T)]\}$ from 1 and 5 by $TNP\beta_{©}$

7) $N_{©}\ [{\sim}T\supseteq({\sim}H\&{\sim}T)]\}$ from 6 by $\supseteq$ rule 2

8) $N_{©}\ ({\sim}H\&{\sim}T)$ from 2 and 7 by $TNP\beta_{©}$

Notice what 8 amounts to: " ~H&~T and N'~(~H&~T)." Equivalently, "~H&~T and N'(HvT)" *i.e.,* the coin did not come up heads or tails, and it is not, will not, and never has been intentionally causable by Joe that "either the coin came up heads or tails." But clearly the latter is false. By tossing the coin one time, Joe could intentionally cause "HvT" to be true, since once it is tossed, when it lands it must come up either Heads or Tails. Clearly, we have been lead to a false conclusion! But since 1,2 and 3 are all undeniable, and so is the $N_{©}\alpha$-Principle and the $\supseteq$ rules, the only thing left to challenge is $TNP\beta_{©}$. Thus $TNP\beta_{©}$ must be invalid![45]

### 3:4 – Conclusion

[44] Again, the reader may object by suggesting that if Joe created coin C he could intentionally cause "$\Box\{{\sim}H\supset[{\sim}T\supset({\sim}H\&{\sim}T)]\}$" to be true. But I find this to be highly dubious. Whoever creates coin C does not cause it to be true of that coin that "if it does not come up heads, then if it also does not come up tails, it doesn't come up either heads or tails." Thus fact is true due to the laws of logic, and cannot be intentionally caused by anyone.

[45] As mentioned before, for more on such counter examples, see McKay and Johnson (1996). Please note that I use different notions for my operators than they do.

Van Inwagen himself has admitted that this type of counter example invalidates his Beta principle (what I called the N'' Principle). I believe that McKay, Johnson and van Inwagen would all agree that TNP$\beta_{©}$ has been invalidated as well. Both McKay and Johnson and van Inwagen have offered new principles; but they do not utilize a notion of causation so they will not be useful for this chapter. However, they will be of great use in the next chapter.

For now we can realize that TNP$\beta_{©}$ is invalid, and thus formulation 2.0 of the causability version of theological fatalist argument is invalid as well. Since both causal versions have failed, it certainly seems that this modality fails to produce a severe theological fatalist argument. We will have to turn to yet another modality to formulate a severe theological fatalist argument: the modality of actualizability.

# Chapter 4

# Correspondence, Actualizability, and the Severe Theological Argument

### 4:1 – Introduction

#### 4:1.1 – General Introduction

In the last two chapters we have considered different forms of theological fatalism by considering different kinds of modality. We saw that none of these modalities succeeded in producing a severe theological fatalist argument. In this chapter, we will consider one last kind of modality, and see that it generates the most severe version of the argument. The modality we shall consider in this chapter I will call "the modality of actualizability."

In short, the "actualizability" version of theological fatalism will suggest that the future must be "open" if we are to be free but God's foreknowledge forces us to view it as closed. More precisely, the argument will suggest that the future cannot be "already actual" before it occurs if we are to be free and that God's foreknowledge entails that the future is "already actual" before it occurs. But put most precisely (and in terms of Joe), the argument shall suggest (1) only things that do not stand in contradiction to what is "now-actual" are "now-actualizable" (2) if God has already had infallible fore-belief about Joe's future actions, those actions are now-actual and thus (3) Joe not deciding as he will is not "now-actualizable" by Joe and thus he is not free. I shall argue that this version of theological fatalism is severe; it is valid (all of

its "logical moves," including its TNP, are valid) and, given what we have so far assumed (about free-will and logic), its premises are true.

**4:1.2 – Road Map**

But course, in order for the argument to be understood, this notion of "now-actual" that I have in mind must be defined. However, there is one assumption that I will hold while making this argument that must be articulated before anything else; it will be a basic assumption about truth. I will assume that ordinary propositions about the world (such as those that are utilized in this version of theological fatalism) are true in virtue of correspondence with the world and (thus) have truthmakers; any successful theory of truth must suggest that this is the case. I take this assumption to be very intuitive and accepted by almost all readers, but since it is contestable it will be necessary to examine this assumption, its defense, and its implications before we move on. To this I shall first turn (in section 4.2). (Later, in chapter 6, I will explore the implications of this assumption being false.) In the process of examining this assumption, the notion "actual" will also be defined. In section 4.3, I will present further clarifications necessary to articulate the "actualizability" version of the problem. I will define the concept "obtain," defend the notion of God as a truthmaker, motivate and clarify time-indexed propositions and states of affairs, and the notion of potential truthmakers. Once this is completed, in section 4.4, I will clearly articulate this chapter's modality (now-actualizability), and define its PAP (PAPΛ), its operator (Λ) and transfer principle (TNPΛ). In section 4.5 I will lay out the actualizability version of theological fatalism, and we shall see that its severity

turns on the validity of TNPΛ. In section 4.6, I will show that TNPΛ is valid. Section 4.7 will be my concluding remarks.

## 4:2 – The Assumption of Correspondence; Truthmakers, the Actual, and Pastism

In this section I shall articulate a basic assumption about truth and what any successful theory of truth should include. It will be helpful to begin with a conceptual outline of the debate about truth.

### 4:2.1 – The History of the Debate Regarding Theories of Truth

*Theories of truth* are theories that make suggestions regarding that to which truth amounts. Propositions are usually said to be the bearers of truth,[1] and a theory of truth will be a definition of truth—a theory regarding how a proposition comes to bear truth. Most specifically, theories of truth are thought to answer this question: "In virtue of what do certain propositions bear truth and others do not?"

There are three major kinds of theories of truth: Correspondence[2], Coherence and Pragmatic[3]. The first correspondence theories, introduced by Russell (1918) and Wittgenstein (1922) and developed by Austin (1950), suggest that propositions are true in virtue of bearing a certain relationship to the world. Russell and Wittgenstein

[1] Armstrong (2004) argues for this in his first chapter. Essentially, he suggests that, even though something like a statement or belief can be said to "be true," if one is true, it is true in virtue of the fact that the proposition it expresses/captures is true. Thus, it should be said that it is the proposition that is the bearer of the truth property. I will here assume that his argument is sound. However, not much rides on its soundness except for my terminology. If the reader is convinced that something else besides propositions are the bearers of truth, then in what follows simply assume I am talking about that which you believe bears truth, and my argument will still be understood.

[2] I am grouping Tarski's semantic theory with correspondence theory—I will talk about it below.

[3] For simplicity, I will forgo including and addressing deflationism and Ramsey's attempt to rid us of the term "truth." But as Newhard (2005) points out, even Ramsey accepted the correspondence intuition; and what I want to argue for here is that all theories of truth accept the correspondence intuition. Thus, I take my omission of deflationism to be of no consequence.

speak of structural isomorphism, and Austin speaks of "correlation," but the basic intuition is the same: how a proposition comes to bear truth is by accurately describing the way *the world* is. We shall call this basic intuition, "the correspondence intuition." Correspondence theory was deeply rooted in the logical atomism of Russell and Wittgenstein, and, under their influence, the logical positivists quickly applied correspondence theory to epistemology and developed a verificationist test for truth; one that suggested that a verification of a belief's correspondence with the world is necessary if one is to verify its truth. (This doctrine was later taken a step farther by the suggestion that to be meaningful, a statement had to be verifiable and, in fact, meaning was identified with verification.)

Those who doubted our ability to perform such verification suggested that it is the relationship a belief bears to other beliefs (not reality) that can verify its truth, and thus "The coherence theory of truth" was born. In the vein of Bradley (1914) and Neurath (1932), coherence theory can be said to suggest that a consistent and comprehensive belief set[4] is a true belief set. However, the clear possibility of "implausible" (*i.e.,* crazy or clearly false) consistent and comprehensive beliefs sets (what Russell called "fairytales"), as well as the possibility of two contradictory (and thus not both true) consistent and comprehensive beliefs sets, make coherence theory fall short as a sufficient condition for a belief set's truth.[5] (However, coherence is clearly necessary for any true belief set.)

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[4] Such a belief set is one in which there is no contradictions, but is so "complete" that to add any other belief to the set would be to make it inconsistent (*i.e.,* it would be to add a belief that is the negation of a belief that is already a member of the set).

[5] Of course, the philosophical debate on this topic is much more involved. For more on this, see my paper "Religious Relativism: An Exploration of Justification in Regard to Religious Belief." If truth is defined in terms of coherence, or perhaps "meaningful" or "true to life" (as Narrative theologians might suggest, at the prompting of the latter Wittgenstein), then clearly non-contradiction (if expressed

Pragmatic theories of truth, developed by the pragmatists Peirce, James, and Dewey suggested that "truth is the end of inquiry, the opinion on which those who use the scientific method will, or perhaps would if they persisted long enough, agree." (Haack, 1978,p 97). And although this might give us a criteria that eliminates fairytales, the fact that science may never agree on certain things (even in the hypothetical infinite long run) and the fact that our agreement on something is the result of it being true (and is not what *makes* something true) seems to clearly show that pragmatism falls short as a *theory of truth* (as defined above).

**4:2.2 – The Correspondence Intuition**

Above we have a quick history of the "theory of truth" debate. But notice how, in the history of the debate, the debate quickly shifts (almost at "the get go") from the question of definition ("In virtue of what is a proposition true?") to the question of criterion ("How can we tell if propositions/our beliefs are true?"). There is definitely disagreement about the latter and both coherence and pragmatism are more concerned with answering the latter, but the only theory to really deal with the question of definition is correspondence theory. And in fact, all of the above theories admit that what correspondence theory says about the definition of truth is basically right. As Haack points out, Bradley himself conceded something to the idea of truth as *correspondence to reality*, and in fact it seems that coherentists think that coherence is necessary for truth because the world is coherent. As Haack summarizes Bradley, "the explanation of the success of coherence as the test [of truth] derives

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in such terms) does not hold. Additionally, if "truth" is a term that can only be applied within a certain belief system or cultural structure (or "framework" as Rorty might call it), it would be improper to even ask questions about the mutual truth of beliefs that originate from such systems or structures. I argue against such moves, in the paper mentioned above.

from an account of reality as itself essentially coherent." (Haack, p 95). And so too with the pragmatists, who seem to realize that our scientific inquiry will ideally agree on that which is true because our scientific inquiry is regarding the world and science will eventually agree on what is true by discovering the way the world is. The intuition that the question of truth's definition is best answered in terms of correspondence—what I called above the correspondence intuition—seems to be quite strong.

The strength of this intuition is clear in Tarski's semantic version of the correspondence theory of truth. This theory, according to Popper, "supplied just what was lacking with traditional correspondence theory—a precise sense of 'corresponds'" (Haack, 112). The fact that this theory is "…the most influential and widely accepted theory of truth[6]" (Haack, p. 99) shows that the correspondence intuition is quite strong in all of us. In fact, Newhard (2005) argues that the correspondence intuition has been prominent throughout the history of western philosophy, is "nearly unanimously accepted," and is even stronger than our intuitions regarding the truth of non-contradiction and excluded middle. As he points out at the beginning of his essay, Ramsey, Quine, and Horwich—philosophers who rejected a correspondence theory of truth—all accepted the correspondence intuition.

Now, I do not wish to get bogged down in the nuances of defining and defending a universal theory of truth—doing so is unnecessary for our present purposes—but what I do want to point out here is the fairly uncontroversial nature of the correspondence intuition: The suggestion that how a proposition comes to bear truth is by accurately describing the way *the world* is.

[6] At least as of 1978

The above stated agreement between the major theories of truth, and the major philosophers who defended them, is nearly conclusive evidence for the universal acceptance of the correspondence intuition. And we can bolster the intuition by looking at what our intuition tells us about a very simple example. What makes

[A] "There are words on this piece of paper"[7]

true? Is it not the world containing a piece of paper on which [A] is written responsible for the truth of [A]? It certainly seems so. The world containing this piece of paper (as it is) is exactly what makes [A] true.

**4:2.3 – Correspondence Theory and Truthmaking**

Although I will not defend it, the theory of truth which suggests that the correspondence intuition is undeniable, in the case of all propositions, would be expressed as follows:

"Universal Correspondence Theory of Truth" (UCTT)

"For any proposition P, proposition P is true IFF it corresponds to the way the world is.

.

One of the consequences of UCTT is the doctrine, introduced by Bigelow (Armstrong, 2005 p. 7), that "truth supervenes on being" (where "being" essentially means "how the world is"). What this means is that there can be no change in "what is true" without a change in "what is"; and there can be no change in "what is"

[7] If you are reading this on a computer screen, substitute the proposition "There are words on this screen."

without a change in "what is true." Additionally, if two things (*e.g.,* two worlds) are ontologically identical, the same truths will supervene on both.

The pieces of the world (often called "facts"), to which propositions correspond when they are true, are called "truthmakers." The notions of truthmakers and truthmaking go hand in hand with UCTT. If every true proposition is true in virtue of corresponding to some fact in the world, then every true proposition has a truthmaker. Additionally, if a proposition has a truthmaker, that truthmaker makes the proposition true in virtue of the fact that the truthmaker is a part of the world; *i.e.,* in virtue of the fact that the truthmaker is something to which the proposition corresponds.[8]

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[8] In correspondence, two objections have been raised by Dr. Ray Elugardo, on this point. He suggests that the connection between UCTT and Truthmaking is "tenuous at best" for the following reasons.

First, he suggests that truthmaking does not entail UCTT. He argues that some propositions, like

> [1] "The chair of the OU Philosophy Department once published a paper on Aristotle."

could be made true by different states of affairs; for example, (a) *Linda's being head and publishing on Aristotle* or (b) *Hugh's being head and publishing on Aristotle* could both make [1] true. Thus "it cannot be that what makes a proposition true is always the thing to which the proposition corresponds" thus truthmaking doesn't entail correspondence. I fail to see how this conclusion follows, however. As we shall see below UCTT merely suggests that all true proposition correspond to the way the world is; UCTT does not suggest that the piece of the world that happens to make some proposition P true is the one and only thing that could do so. For many propositions (like [1]) there are many possible states of affairs that would make that proposition true, if they were actual. But in every case, whatever it is that make a proposition true, it does so in virtue of correspondence. Regardless of whether it is (a) or (b) that makes (1) true, which ever one does make [1] true will do so in virtue of the fact that it is a state of the affairs with which [1] corresponds.

Secondly, he argues that correspondence does not entail truthmaking. He argues along the following line: suppose that

> [2] Every true proposition corresponds to some fact or other.

is true. If it is, it must correspond to some general fact. Call its *fact-correlate* "F." Dr. Elugardo argues: "Must F be [2]'s truth-maker? I don't see why it must. What makes [2] true is not F but the totality of each true proposition-fact correlation plus the fact that those are all the correlations there are.

It should be pointed out that, on correspondence theory and truthmaking, there is not a 1-1 correspondence between truthmakers and true propositions. Some truthmakers will make more than one proposition true (*e.g.,* whatever makes P true, would also make "P or anything" true). Some propositions could also have more than

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However, [2] doesn't correspond to the fact designated by 'that those are all the correlations there are' or to any fact that has it as a constituent." Thus, what [2] corresponds to is not what makes [2] true.

I counter with the following argument; Dr. Elugardo's argument either contains a redundancy that makes it invalid, or simply asserts something false. Whatever is the case depends on what fact [A] *the totality of each true proposition-fact correlation* is.

[2] must have a fact-correlate and it is clear that Dr. Elugardo thinks that [A] is [2]'s fact-correlate. That being the case, I first assumed that [A] must be this fact: [B] *the set of all correlations that are true propositions corresponding to fact.* But if this is the case, the set of facts that Dr. Elugardo suggests is the truthmaker for [2] (the totality of each true proposition-fact correlation plus the fact that those are all the correlations there are) is a redundant fact. If we substitute [B] for [A] Dr. Elugarod's truthmaker for [2] would be: *the set of all correlations that are true propositions corresponding to fact plus the fact that that set is the set of all such correlations.* The latter fact is clearly a part of the former fact, thus what makes [2] true is that to which [2] corresponds, and Dr. Elugardo's conclusion is denied.

To avoid the redundancy, I attempted to formulate another way to understand what fact [A] is. First I just took the word "all" out of [B] and got [C]: *the set of correlations that are true propositions corresponding to fact.* But then I realized that this would not work because [C] is equivalent to [B]. If it is the set of correlations that are true propositions corresponding to facts, then it is the only such set and thus is clearly the set of all such correlations. So I replaced the "the" with an "a" and got [D] a *set of correlations that is true propositions corresponding to fact.* [D] is not equivalent to [B] and if [D] is what [A] is, clearly we would avoid redundancy. Dr. Elugardo's truthmaker for [2] would be: *a set of correlations that is true propositions corresponding to fact plus the fact of these are all the correlations there are.*

But notice that [D] is not that to which [2] corresponds. Take some set of three propositions that correlate to facts, and call that set of correlations [D']. What is [D']? It would be the set that consists of those three propositions, those facts, and the correspondence relationship between them. Is [D'] that to which "Every true proposition corresponds to some fact or other" corresponds? Of course not! But, let us suppose that [D'] actually happens to pick out, not just three, but the set of all true propositions, their facts, and their correspondence relationship. Would [D'] be that to which [2] corresponds now? I don't see why. Granted the set that is [D'], since it is the set of all propositions, is a part of what [2] corresponds to. But since the fact that it is the set of all propositions is not a part of the fact that is [D'], [D'] is not that to which [2] corresponds. [2] corresponds to the "the way the world is" and the fact of the world to which [2] corresponds is the fact that all propositions correspond to facts. You could also express this fact as "[D'] plus the fact that [D'] happens to consist of all the correlations there are" but what this allows us to realize is this: the very thing that Dr. Elugardo suggested was the truthmaker for [2] is also the very thing to which it corresponds.

The relationship between UCTT and truthmaking is not tenuous at best, but quite solid and I would suggest, bi-conditional.

one truthmaker (*e.g.,* "there is someone in the lounge" could be made true by many different states of affairs). There are even minimal and maximal truthmakers. The state of affairs of Joe deciding to do X would be a minimal truthmaker for "Joe decided to do X."[9] The state of affairs consisting of every fact (*i.e.,* the world) would be the maximal truthmaker for "Joe decided to do X." In fact, every true proposition has "the world" as its one and only maximal truthmaker.

In my argument I will be speaking of "the truthmaker" or "the potential truthmaker" for propositions such as "Joe decides to do X", "God believed D" and so froth. When I do so, I mean to refer to those proposition's minimal truthmakers; *e.g., the truthmaker* for "God believes D" will be the state of affairs of God believing D (even though "the world" or many other "larger" states of affairs (that also included God believing D) could also make it true.)

Of course, it makes sense to speak of some *non-part of the world* "fact" and suggest that, if it had been a part of the world, it would have made some proposition (which is false) true. For clarity, we shall call a fact, to which a proposition would correspond if it were true, a "potential truthmaker" of that proposition. If a proposition is true, and thus a potential truthmaker for that proposition is a "fact in the world," we shall say that a potential truthmaker for that proposition is "a part of the world." I shall say more about potential truthmakers later, in section 4:3.4.

**4:2.4 - A Limited Correspondence Theory of Truth**

Although quite intuitive, UCTT and the notion of truthmakers, has not gone unchallenged. UCTT suggests that <u>every</u> true proposition is true in virtue of

[9] S is a minimal truthmaker for P IFF S is a fact such that, if anything were subtracted from S, it would no longer make P true.

corresponding to some fact about the world; however, there are some cases where it is not so clear that a proposition's truth is due to correspondence. Logical truths for example, such as "~(A&~A)," might seem to be true for other reasons besides corresponding to the way the world is. Counterfactual truths—such as "If I hadn't hit the brakes, we would have hit that car"—are other candidates for "non-corresponding true propositions." Modal truths, such as "I could have written a better paper," might also cause a problem; it is unclear what such proposition's truthmakers would be.

D. M. Armstrong (2004) argues convincingly for a universal Correspondence Theory and truthmakers, showing that all of the above *problematic propositions* actually are true in virtue of correspondence with the world; he argues that every type of proposition has a truthmaker. But of course, the reader may or may not be convinced by Armstrong type arguments and thus I will not rely on them to make my argument; I will concede the point that there perhaps may be true propositions that do not correspond with the world, and perhaps, in some cases, there is truth without truthmakers. But, what I will not concede is this: truth is never in virtue of correspondence.

Certainly a rejection of UCTT does not force one to abandon correspondence and truthmaking altogether. If one admits that there are cases of truth without correspondence, what this forces one to accept is that the correspondence intuition is not without exception; *i.e.,* that UCTT (which states that the correspondence intuition is without exception) is wrong. But this does not force one to conclude that truth is never in virtue of correspondence—just that it is not always so; there being exceptions to a rule does not entail that the rule never applies. Thus, even if UCTT is

false, we are not justified in giving up on truthmaking and correspondence in the cases of ordinary (non-tautological, non-modal, non-counterfactual) propositions. If you observe Joe doing X, you can not justifiably reason "Tautologies do not have truthmakers, so 'Joe did X' does not either." Clearly Joe doing X is the truthmaker for "Joe is doing X" and the above counterexamples to UCTT are irrelevant in this case.

In addition to not being forced to abandon correspondence (by conceding the possibility of the falsity of UCTT), I simply find the case for "correspondence" as an explanation for truth persuasive in ordinary cases. Thus, what I find highly intuitive—and what I will assume to make the argument of this and the next chapter—is a limited correspondence theory of truth regarding ordinary (non tautological,[10] non modal, non-counterfactual[11]) truths. In short, I shall assume that ordinary propositions—like propositions about Joe's decisions and actions and God (*i.e.,* the kinds of propositions I will use to produce this chapter's version of theological fatalism)—are true in virtue of correspondence with the world; they are true because they accurately describe the world (e.g., Joe or God). I shall call this:

> The Limited Correspondence Theory of Truth (LCTT)
>
> For every ordinary proposition P, P is true IFF P corresponds to the way the world is.

[10] There is one exception. It is a necessary truth that if God believes something, it is true. I will take the truthmaker for this to be God's possession of the property of infallibility, and thus assume that this truth is true in virtue of correspondence. I take this to be fairly uncontroversial, but I will argue for it in section 4:3.2.

[11] I will not offer a full definition of "ordinary" here, but again it will not be required. What I will assume is that all the propositions which I claim have truthmakers (*i.e.,* that I claim are true in virtue of correspondence) as I spell out this chapter's version of theological fatalism will be "ordinary" at least in the sense that they clearly have truthmakers.

LCTT is not a complete theory of truth, but any correct complete theory of truth will have to incorporate LCTT into it. Further, I shall also assume that it is clear, given LCTT, that truth supervenes on being when it comes to the truth of such propositions. There can be no change in ordinary truth without a change in the way the world is, and there can be no change in the way the world is without a change in ordinary truth. Additionally, there can be no truth if there is *no way the world is*.[12]

For simplicity, I shall refer to the part of the world to which an ordinary proposition corresponds when true as a "state of affairs." I certainly do not want to get bogged down in giving a full definition of "state of affairs"; but again, fortunately, one will not be required. The states of affairs to which we shall be referring are straightforward: Joe taking actions and making decisions, God having certain beliefs, God being infallible (see section 4:3.2), etc. Certainly my definition of "state of affairs" is not limited to physical states of affairs—I will be speaking of God's beliefs, decisions, actions, and infallibility—but I trust that such a notion of "state of affairs" is understandable. When I refer to a "state of affairs" as a truthmaker, I shall simply be referring to the piece of the world in virtue of which some proposition is true. I shall further define states of affairs in an upcoming section (4:3.3.2).

### 4:2.5 – The Ontological Commitments of LCTT

Here I shall define "the actual" in terms of ontological commitments and show what kind of ontology one is committed to by LCTT.

#### 4:2.5.1 – Ontology and "The Now-Actual"

[12] I will not defend this assumption further, but I will address the possibility of truth without correspondences in the case of the propositions I suggest require correspondence in chapter 6.

In 4:2, I spoke of propositions being true by corresponding to "the way the world is." But it must be noted that, when I and other philosophers speak of "the world" in the way I have above, they do not mean to merely suggest something about the planet earth. In fact, they do not even mean to merely suggest something about the physical universe per se. They mean to say something about that which they believe should be included in one's list of "everything that is." Such a list is called one's "ontology," and thus to speak of "the world," as I have above, is to speak of what one believes to have positive ontological status (*i.e.,* to speak of what one believes should be included in one's ontology).

For convenience, what I shall say is, that which one believes to have positive ontological status, is that which one believes to be "actual." Thus debates regarding ontology are debates about what is actual, and a person's *ontology* is an *exhaustive list* of what that person believes to be actual. Consequently, we can restate our previous doctrine of supervenience as: "*in regard to ordinary truths, truth supervenes on that which is actual."*

Some of what is actual is clear: we think that the physical objects that constitute the present moment are actual: the paper you are holding is actual, you are actual. One would probably want to say that all the elements that presently make up the physical universe are actual. But there are many prime candidates for things that are actual but not physical. God, numbers, properties (*e.g.,* charge, mass), and minds/souls are all examples of non-physical things that people might still include in their exhaustive list of things that are actual.

But, one's ontology might change over time; it might be the case that things come into, and go out of, existence. Thus, the question "what has positive ontological status" is a bit ambiguous.[13] For clarity we should not ask "what is in your ontology" but "what is now in your ontology." Of course, the answer will depend upon what one believes to now have positive ontological status; *i.e.,* what one believes is "now-actual." But at any rate, because of this ambiguity, I shall from here on out, speak in terms of the "now-actual." (For similar reasons, which I trust are clear, I will also speak in terms of what is "now-true" when I speak of truth.)

It should be clear what "now-actual" means—what is now-actual is what now has positive ontological status—but what should be included in one's list of what is now-actual? Although there are many issues to consider when forming a complete ontology, there is one question that is very relevant to our present purposes: Should one's ontology change over time?

There are a few questions one must address to answer that question. For instance, one must answer "once something is in your ontology (now-actual), should it always be?" There are a couple of ways to answer this. One might think that only that which is present is actual, and nothing else is. Consequently, since in the "present" objects are constantly going in and out of existence, what is "now-actual" is always changing. (This view is called *presentism*.) However, one might think that, once something exists, it always will; if it ceases to exist in the present, it does not fall off the ontological map, but instead it falls into the past and remains actual. On

[13] It is ambiguous in the following way: one's answer to the question will depend on how one understands the term "has." Understood one way, in answering the above question, one might include things that are not currently in their ontology but will be; if understood another way, one would only include that which is now in their ontology. I am only interested in the latter question, and it is for this reason I clarify as I do above.

this view, one's ontology does grow as the world progresses—new things are being added all the time—but once something is now-actual, since the past is unchangeable, it always will be now-actual. (This view is called *pastism*.)

[It is worth noting that, if one also includes the future in one's ontology, one's list of what is now-actual will never change. Since neither the past nor the future is changeable, if the totality of the past, present, and future were on the ontological list—even though something's status might shift from future, to present, to past—nothing's ontological status would ever change, and the ontological list would never grow. (This view is called *omnitemporalism*). Of course, whether or not we should (or are forced to) include the future in our ontology is a matter of debate. I will address this issue next chapter.]

The relevant question for our present purposes is this: once something (event or object) no longer "presently obtains," and *falls into the past*, should it be tossed out of one's ontology? It is to this question that we now turn.

**4:2.5.2 – LCTT's Ontological Commitments: Presentism vs. Pastism**

It is my position that LCTT commits us to including the past in our ontology.

As mentioned above, the suggestion that neither the past nor the future should be included in our ontology is called "presentism." (It is called such because it suggests that only the present exists.) A. N. Prior is considered the philosophical founder of presentism (Smith (2003)) but presentism may have simply been the generally accepted view (accepted by even the non-philosopher) until the 20th century when newly accepted scientific theories (such as special relativity) seemed to suggest that it was false (See Dainton, 2001). The suggestion that the past (but not the future)

should be included in one's ontology is called pastism. Defenders of pastism include Michael Tooley (1997) and C.D. Broad (see Armstrong (2004), p. 149.) I shall here argue—much in the same way that Smith (2003) does—that LCTT commits us to favoring pastism over presentism.

Presentism is a sort of "ultra-nominalism." Their line of reasoning is fueled by their nominalism: we should not bloat our ontology with unneeded objects, and there is no reason to include things of the past (or the future) in our ontology because they simply do not exist. They used to exist (or they will exist) but they do not now, and thus they should not now be included in our ontology. The pastist, on the other hand, suggests that the past must also be included in one's ontology.

The most convincing argument for favoring pastism over presentism is along the following lines: It seems very straightforwardly to be the case that

[E] "Dinosaurs once roamed the earth"

is in fact true right now, at this present moment. But [E] is a straight forward ordinary (as defined above) truth; according to LCTT it must be true in virtue of correspondence and have a truthmaker.[14] But what could possibly be the truthmaker for [E] if it is not the (now-actual) past state of affairs of dinosaurs roaming the earth? The answer: nothing! The presentist, who suggests that only present states of affairs are actual, has nothing in her ontology to serve as a truthmaker for [E][15]—but the

[14] The assumption that 'tensed proposition' (*i.e.,* propositions about the past—like [E]—and propositions about the future) are ordinary and thus require truthmakers is essential. I will present an argument for this assumption below. However, as I stated above: "I will address the possibility of truth without correspondence in the case of the propositions I suggest require correspondence in chapter 6." When I do so, I will consider the possibility that tensed propositions do not require truthmakers.

[15] Attempts to suggest that present dinosaur bones are the truthmakers for [E] are clearly unsatisfactory. First, the presence of such bones does not make it true that dinosaurs roamed the earth (as many six day creationists point out, God could have simply planted them there to "test our faith.")

pastist does. The past state of affairs of dinosaurs roaming the earth is now a part of the pastist's ontology, and that past state of affairs being now-actual is the truthmaker for [E].[16] So, on the assumption that LCTT is true, and thus ordinary propositions are true in virtue of correspondence and have truthmakers, pastism is very clearly the preferable theory.

We can seal the deal in favor of pastism, with the following reductio. Suppose that presentism is right and that in our world, as events happen and objects obtain and then are no longer present, they fall off of the ontological map and are no longer actual. And let us assume that, somehow, to avoid the above objections, the presentist can find in our *presentist world*, a presently existing truthmaker for [E]. Now compare our world, with a Russailian fantasy world that just "pops" into existence and whose first moment is exactly like our present moment. Notice the fantasy world is completely identical with our world on the ontological level; the ontology of the two worlds are identical since (1) all that is included in our ontology (on the presentist theory) is that which is present, (2) all that is in the other world's ontology is that which is present and (3) their present moments are identical. But recall that, on LCTT, truth supervenes on being—or put more accurately: *in regard to ordinary truths, truth supervenes on that which is actual.* It follows that the same ordinary truths will supervene on these two ontologically identical worlds. Consequently, on the presentist theory, it must be that [E] is true in the Russalian

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Secondly, even if the dinosaurs had been incinerated and thus left no traces of themselves behind, it would still be true that they once roamed the earth.

[16] To be more specific, one would have to say that 'the state of affairs *dinosaurs roam the earth* being a now-actual piece of the past" is the truth maker for [E], but for simplicity I shall refer to "the now-actual past state of affairs of dinosaurs roaming the earth" as [E]'s truthmakers, and the same shall be true for other similar propositions.

world as well as ours, since it is ontologically identical to ours. However, very clearly, [E] is not true in that world: that world, just this second, began to exist and it is not true in that world that dinosaurs once roamed the earth in that world.[17] Thus, presentism must be faulty.

Additionally, this reductio gets pastism another mark in its favor; pastism nicely accounts for our intuition regarding why *[E] is true in our world but not the in the Russialian fantasy world*. It seems to me that, the intuitive thing to say about why [E] is true here but not in the Russalian fantasy world is this: it is true here and not there because we "have" a past but the other world does not. But, what could "our world has a past" mean other than "our world's ontology includes a past"? Thus again, presentism falls short, and pastism comes up on top.

Like Smith, both Armstrong (2005) and Parsons (2004) favor pastism over presentism and do so by essentially the same kind of arguments. In fact, they take the argument a step farther, but to discuss this now would be to jump ahead of ourselves. We will discuss their arguments more in the next chapter.

**4:2.6 - Identifying the Basic Assumptions Before We Move On**

Most presentists take LCTT (and even UCTT) seriously, recognize this difficulty, and try to develop candidates for presently existing truthmakers for past propositions. It is my take on this that these efforts fail, but an exploration of this debate here will take us too far off track. I will here, to push the argument forward, assume that no presentist theory can give truthmakers for past truths, and that past states of affairs are clearly the best candidates for truthmakers for true propositions

[17] Of course, by "the earth" here I mean to refer to the earth of that new Russalian world. It is still true in that world that "they roamed the earth in our world" – but that is beside the point.

about the past. I will assume that presentism cannot answer this objection until I return to the debate on presentism, in chapter 6 (section 6:3). Thus, the existence of presently existing truthmakers for past/future tensed truths will not be considered as an option for a way out of the fatalist arguments that we are about to encounter until we consider presentism in chapter 6.

I will also assume that LCTT is true. Newhard (2005) argues that the correspondence intuition is even more basic than excluded middle and non-contradiction. Since LCTT is even more limited, I take it to be even more intuitive than the correspondence intuition. For this reason, I will assume its truth and not consider its denial as an option for avoiding the fatalist arguments that we are about to consider. However, I will consider the possibility of its falsity as I consider presentism in chapter 6.

So in short, I can state the assumptions that I hold to make the argument of this chapter (and next) as follows: (1) LCTT is true; ordinary true propositions (such as the ones I will use in this chapters version of theological fatalism), both about the present and the past, require truthmakers. (2) It is clearly the case that propositions about the present (like [A]) and the past (like [E]) are now true, and that (by the lights of LCTT) the propositions about the past and the present that are now true are the ones that accurately describe the way the world is. (Notice I do not assume the truth of propositions about the future.) (3) Presentism cannot provide truthmakers for such propositions.

There are three major consequences of these assumptions. First, presentism is false and pastism is preferable (by the argument in section 4:2.5.2), and thus past

events (such as the past event of God believing "Joe will do X") are now-actual. Second, once something is now-actual, it always will be; further, anything that is mutually exclusive with something that is now-actual never will be. As I mentioned above, the pastist's ontology changes over time: it grows. But once something is included in it, it always will be; it will either be present, or a member of the unchanging past.

[It is also worth noting that, if some future state of affairs is now-actual, it always will be and anything mutually exclusive with it never will be actual. If something mutually exclusive became actual, either the future changed (something that we know—by the lights of chapter two—cannot happen) or the future that is actual did not occur (which seems to be contrary to the definition of "the actual future"). Thus, given the assumptions, once something is now-actual, it always will be.]

### 4:3 – Definitions and Clarifications

We are now prepared to define our terms, and further define the concepts necessary to set up the most severe version of theological fatalism.

#### 4:3.1 – Obtaining

The presentist position does seem to coincide with common intuitions in one way: that which is present does seem to have a status that, that which is not present, lacks. To that end, let us say that *anything* that now has positive ontological status is "now-actual," but that present objects, events and properties are not only now-actual

but also "obtain." (To remind us what "obtain" means, I will occasionally preface it with "presently" *i.e.,* I will write "(presently) obtains.")

### 4:3.2 – The Exception of Divine Tautologies

I maintain that, unlike other tautologies, divine tautologies (logically necessary statements about God) have truthmakers. In short, the way God is, is what makes propositions about God (even necessary ones) true. This is probably obvious to most, but—even though the actualizability version of the theological argument can still be made without this assumption[18]—this assumption makes the argument "a lot smoother" and it is thus worth taking the time to defend.

Above I mentioned the fact that finding truthmakers for tautologies is problematic. For example, take the tautology

[T] "All bachelors are unmarried."

One might think that the state of affairs of all bachelors being unmarried could serve as a truthmaker for [T]; however identifying that state of affairs in the world might be problematic. It certainly would consist of the set of all unmarried males; but one would have to somehow combine that state of affairs with *the fact* that the set contains all the unmarried males there are in order to actually find [T]'s truthmaker—but it is hard to figure our where exactly that "fact" might be. Further, one might think that [T] is true because of the "definition of 'bachelor'." However, it will be hard to find that definition "in the world" as well.[19] I do actually think that these problems can be solved (Armstrong 2005), but this is why I am willing to concede (for the purpose of argument) that tautologies may not have truthmakers.

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[18] See footnote 32.

[19] Although an attempt to reduce it to the physical facts about how the word is used might be successful.

However, there is a certain set of tautologies that has a special status; tautologies in this set do have truthmakers: tautologies about God. "If God believes X, X is true," "If God does X, X is good," and "If X is true, God knows X" are all traditionally viewed as tautologies; they are "logically" true. Traditionally, God is said to be, by definition, (ala Anselm,) the Greatest Conceivable Being (GCB) and is thus said to possess the above properties by definition since, without them, he would fail to be the GCB. Those who suggest that such statements are true by definition suggest that anything that fails to do good, or know/believe something that is true, is not God because God is defined as a being that does only and all good and knows only and all truths.

If this is taken to mean that such proposition are true of God in virtue of God's definition,[20] then clearly there is going to be a problem suggesting that divine tautologies have truthmakers. Finding such a definition in the world will prove to be just as problematic as finding [T]'s definition in the world. But I suggest that such propositions are not true in virtue of God's definition; such propositions are true in virtue of accurately describing the way God is, and thus God is their truthmaker. I argue to this conclusion in the following way:

Assuming that propositions about God are true "by definition" lands one into the following referential problem: Suppose person 1 says: "God exists and has the property X" and person 1 believes that this is true because having the property X is part of God's definition. Suppose person 2 says "God exists but he does not have the property X." According to person 1, person 2 is speaking a contradiction and is actually an atheist; according to person 1, person 2 does not believe in God because

[20] I am assuming here that this is the meaning of "true by definition."

by definition God has the property X. In fact, according to person 1, when person 2 uses the world "God," person 2 is not even referring to God and at best merely believes in the existence of some other being that, although similar to God, is not God because it lacks the property X. And of course, person 2 will say the same thing about person 1, because person 2 has a different definition of God than person 1.

And not only will they say those things about each other, but from a third person point of view, one is forced to conclude that person 1 and person 2 are not even talking about the same being. For instance, since I do not believe that God is simple (indivisible), omnipresent, and knows nothing but himself but Aquinas does (Summa Theologica, part I, question 14, article 5), by this reasoning, Aquinas and I do not even refer to the same being when we use the name "God."

But from a common sense point of view, this is ludicrous. Person 1 and Person 2 (and I and Aquinas) are not referring to a different being, and neither one is an atheist. We all believe in and are referring to God, we simply disagree on what God is like. Further, our disagreement is not fundamentally about *the definition* of God; we disagree about what God is like. Even further, whichever one of us right, will not be right because they landed on "the right definition"; he will be right because he accurately described God. Person 1 is right if God really is X; person 2 is right if God is not (and similarly with Aquinas and me). And God *being that way* (and not God *being defined that way*), is what makes whoever is right, right.[21] Thus I

[21] And the same is true throughout the history of religion: If what is true of God is true of him by definition, the ancient Jews, the early church, the Catholic church, the Muslims, Augustine, Aquinas, Calvin, and Wesley would all have been talking about a different being since they all had a different definition of God. But very clearly, they are talking about the same being, they simply disagree on what he is like. And, very clearly, whoever is right (if anyone) will be right because they have accurately described God.

suggest that, when some proposition is true of God, it is not true of him in virtue of his "definition" but true of him because it accurately describes him.

This is not to say that there is not a correct definition of God; clearly whoever "gets God right" will have the correct definition of God. Thus, disagreements about God's attributes are, on some level, disagreements about his definition. However, what I am suggesting is that, what is true of God is not true of him *in virtue of his definition* and thus one's inability to "locate" the definition in the world does not indicate that propositions about God have no truthmaker. In other words, I am suggesting that if God does have the property X, "God has the property X" is not true in virtue of the fact that "possessing property X" is part of the definition of God. What I am suggesting is that God's possession of the property X is both what (1) makes "God has the property X" true and (2) what makes "possesses property X" part of God's definition.

Further, this is not to say that there are not necessary truths about God. I am willing to concede for many attributes God does have, God has them necessarily; he has those attributes in "all possible worlds." But disagreements about his necessary attributes are, on the most fundamental level, disagreements about what attributes he has in all possible worlds (again, not fundamentally about his definition). Thus, if "God has the property X" is true, in many cases, it is also the case "it is necessary that God has the property X." (For example, God is omnipotent and it is necessary that God is omnipotent; *i.e.,* God is omnipotent in all possible worlds.) But both are true in virtue of the way God is, not because "the right definition" says so. Whoever is right about the way God necessarily is (*i.e.,* whoever is right about what properties

God possess in all possible worlds) will be right because they have accurately described the way God necessarily is (*i.e.,* they will be right because they have accurately described the way God is in all possible worlds). In sum, it is true that God possesses the attributes that he possess necessarily because he possesses them necessarily—not because he is defined that way.

It follows that, tautologies (necessary truths) about God do have truthmakers. They are true in virtue of accurately describing the way God is, and thus God is their truthmaker. The specific consequence of this—which is relevant for the upcoming discussion—is this: The proposition

"Necessarily, if God believes X then X is true"

does have a truthmaker: God. More specifically put, its truthmaker is God's possession of the property of essential omniscience (*i.e.,* God believing only and all true propositions in all possible worlds makes the proposition true.)

**4:3.3 – Propositions and States of Affairs**

Above, "states of affairs" was loosely defined. However, it will be helpful to be more specific about them, and the propositions for which they are truthmakers.

**4:3.3.1 – Time Indexing Propositions**

Ambiguous language always causes problems. One of the prime examples of ambiguous language is non-time-indexed propositions. For example, consider the following simple rendition of theological fatalism:

> "If God already knew that Joe would do X tomorrow, then Joe cannot be free because for him to refrain from doing X is incompatible with God's past infallible belief."

Now consider the following reply:

> "Given your statement, God did not have a belief about when Joe would do X tomorrow—he could do it at anytime tomorrow. Thus, whenever Joe does do X it is not the case he could not refrain from doing X, because his doing X at some other time during the day tomorrow is compatible with God's previous beliefs."

This objection is annoying because clearly it is ignoring an assumption made by the original arguer: namely that God knew exactly when Joe would do X tomorrow. But all the same, the objector has a point: the argument, as it is stated, is not specific enough to justify its conclusion. We have been ignoring this objection up to this point,[22] simply assuming that it is understood that God's previous belief is about exactly when Joe will perform the action he will. But we cannot ignore this objection any longer.

To avoid it, we will be as specific as we can with our propositions, and this will include time-indexing them. I will call whatever action Joe decides <u>at noon</u>[23] tomorrow to do "X." But a time indexing of propositions will require us to also time index our truthmakers; specifically the truthmakers for ordinary propositions: states of affairs.

#### 4:3.3.2 – Time Indexing States of Affairs

If an object moves or changes, or does not move or change, or simply instantiates a property, we shall call this an "event." If an event (presently) obtains, we shall say that it "<u>occurs</u> at" the present moment. If an object obtains, we shall say

[22] We could have said the same thing about previous versions of theological fatalism.
[23] To avoid further objections, we shall assume that all such references are made according to Greenwich mean time.

that it "exists at" the present moment. In regard to some past event X that occurred at some past time t2, but no longer obtains (but is now-actual), we shall say that it is now-true that "event X occurs at t2 but does not obtain." A "state of affairs" shall be the occurring of an event and/or the existing of an object at a specific moment or collection of moments in time. If an event and/or object occurs and/or exists at two different times, we will describe each occurrence and/or existing of those events and/or objects as separate states of affairs; but we shall also reserve the right to call certain collections of events/objects that occur/exists over time states of affairs as well.[24]

Thus any full description of a state of affairs will include the objects and events that make up that state of affairs, but also the moment(s) in time at which those objects obtain and those events occur. We shall call such moments in time (to which the state of affairs refers) the "time index" of that state of affairs. If a state of affairs is time indexed to a moment prior to the present moment, we shall call it a "past state of affairs"; and if it is time indexed to a moment after the present moment, we shall call it a "future state of affairs." Of course, if the time index includes the present moment, we shall say it is a "present state of affairs."

### 4:3.4 – Potential Truthmakers

[24] For instance, take the event of a specific bottle being on a specific table. That bottle being on that table in the morning shall be a different state of affairs than that bottle being on that table in the evening. Call the event of the bottle being on that table A, and some specific morning time "t5" and some specific evening time "t50." "A occurs at t5" shall be one state of affairs, and "A occurs at T50" shall be another separate state of affairs. Additionally, a state of affairs might consist of a collection of a state of affairs—an event occurring over a period of time. If that bottle is on the table all day long, we can also describe "A occurs at T5 through t50" as another, separate state of affairs.

In Section 4:2.3, before I introduced the notion of ordinary truth and states of affairs, I mentioned "potential truth-makers." We are now ready to give them a more precise definition. Among the things that are now-actual are "states of affairs," and it is the being now-actual of a state of affairs that is the truthmaker of an ordinary proposition. A state of affairs that, if actual, would make an ordinary proposition true is a "potential truthmaker" for that proposition. (Of course, some propositions—like disjunctions—might have more than one potential truthmaker.) A potential truthmaker of an ordinary proposition being actual is sufficient to make that proposition true; an ordinary proposition being true entails that a potential truthmaker of that proposition is actual.

It follows that the potential truthmakers of false ordinary time-indexed propositions are not actual, and thus do not have positive ontological status. If P is now-false, I shall say that no potential truthmaker for ~P is now-actual. One might object to my referring to the potential truthmakers of false propositions since such things are not in my ontology. And, to fully develop a systematic theory of truth, I believe I would have to account for this objection. It can be done I believe,[25] but if I used the language necessary to avoid this objection, the upcoming theological argument would be quite cumbersome. Thus, I will assume that the reader has an intuitive notion of the meaning of "a state of affairs that would be actual if P were true," and I will press on.

[25] One way of doing so would be this: One might include all possible states of affairs (even those that are potential truthmakers for false propositions) in one's ontology, and then reserve the term "now-actual" for the states of affairs that are potential truthmakers for now-true propositions. (Such, "now-actual" states of affairs might be said to have "more positive" ontological status than non-now-actual ones.) Thus, reference to non-now-actual states of affairs could be salvaged. Although this might be more exact, I find it much more cumbersome, and I will avoid using such langue.

Since we shall only be dealing with time indexed propositions, "time indexed states of affairs" shall be the potential truth makers for the propositions we shall be utilizing. Take for instance the proposition:

(S) "Socrates was discoursing at noon[26] on Oct 9th, 398 BCE."

The state of affairs that is the minimal potential truth-maker for that proposition consists in the following: the object Socrates, the event of Socrates discoursing, Socrates exists at noon Oct 9th, 398 BCE, and the event of Socrates' discourse occurring at noon on Oct 9th, 398 BCE. This set of facts we will call a "past state of affairs."

When a true proposition is presently tensed, what makes it true is the being actual of the present state of affairs to which the proposition refers. What makes a non-presently tensed proposition true is the being now-actual of the non-present state of affairs to which it refers. For instance: When a true proposition is past tensed, it will be the "being now-actual of the past state of affairs that proposition is about," that makes that proposition true.[27] When a true proposition is future tensed it will be

[26] Of course, the term "noon" is ambiguous, since it is relative to a time zone. I will simply assume that all such time stamps refer to Greenwich Mean Time to avoid ambiguity.

[27] We might be tempted to suggest that the existing (and being now-actual) of present states of affairs might serve as truth makers for some past propositions. Perhaps my current presence at my work place could serve as the truth maker for "I traveled to work today." However, even though my presence at work entails the truth of that proposition, clearly a better candidate for its truth-maker is *now-actual the past event* of my traveling to work. In fact, that event played a direct causal role in bringing about the event of my being at work; and the latter event is clearly the truth maker for "I am at work." To suggest that being at work is the truth maker for "I traveled to work" would be to suggest that the same event (being at work) is the truth-maker for "I traveled to work" and "I am at work" and would be to suggest that the current state of affairs made true that which caused it to be true; and that certainly seems odd. At the least, it seems that *the being now-actual of the past event of my traveling to work* seems to be the best candidate for the truth-maker of "I traveled to work today."

the "being now actual of the future state of affairs that proposition is about," that makes that proposition true.[28]

### 4:4 – Now-Actualizability

#### 4:4.1 – Defining Now-Actualizability

Given what we have discussed so far, defining the modality of this chapter will be quite simple. Something will be "now-actualizable" only if it does not stand in contradiction with (is mutually exclusive with) anything that is now-actual, the laws of nature or the laws of logic. A prime example of that which is not-now-actualizable is any given logically possible but non-actual past. For any given past event that is a member of the now-actual past, it is now, and always will be, now-actual, and thus its non-occurrence is not-now-actualizable. The actualization of any such logically possible past now stands in contradiction with what is now-actual, and thus is not-now-actualizable.

#### 4:4.2 – Defining Now-Actualizability In Terms of Ability

As before, when producing the argument, we will be doing so in terms of Joe; in this case, in regard to what is now-actualizable for Joe. But if we are not careful,

[28] When a true proposition is future tensed, there might be a few exceptions. Certainly, if some future state of affairs is now-actual, its being so will be the truthmaker of a true future tensed propositions about that future state of affairs. But some will deny that future states of affairs are now-actual (and in fact, whether one can do so will be the main point of the next chapter). However, such persons might want to suggest that there are still some clearly true future tensed propositions. To do so, they might suggest that present (or even past) states of affairs can serve as truth-makers for future tensed propositions. For instance, perhaps, the present physical state of the sun causally necessitates that it will burn out on a certain day (call it day X), which would mean that the present physical state of the sun is the truth maker for the proposition "the sun will burn out on day X." But clearly, if no present state of affairs could be the truth-maker for a future tensed proposition, only the *being now actual of that future state of affairs that proposition is about* could be its truth-maker.

we might end up producing an argument that is equivalent to last chapter's argument. Notice that if I say that X is now-actualizable for Joe, initially, we might think that, not only does X not stand in contradiction with something that is now-actual, but X must also be now-causable by Joe. And clearly, if we used this definition, this and last chapter's arguments would be almost identical.

To avoid this, we shall utilize the following definitions:

> If X stands in contradiction with anything that is now-actual (the laws of nature or the laws of logic) then we shall say that no one now has an ability such that, after the exercise of that ability then, X will be now-actual.

This truth of this should be fairly clear, given the assumptions we have made. As mentioned above, once something is actual, it always will be and anything mutually exclusive with it never will be. Thus, if something stands in contradiction with anything that is now actual it never will be actual. Thus, no one has an ability such that after its exercise, that thing will be actual. We can also say:

> If no one now has an ability such that, after the exercise of that ability then, X will be now-actual, then X is not-now-actualizable.

Notice that even though the actual past is not causable, it is now-actualizable; we all have abilities such that, after the exercise of those abilities then, that actual past will be now-actual. But clearly no other logically possible past besides the actual past

is now-actualizable since no one has an ability such that, after the exercise of that ability then, such a past will be now-actual.

Of course, if something (call it X) does stand in contradiction with that which is now-actual, its occurrence will not be now-actualizable for Joe (since it is not now-actualizable for anyone). In that event, we shall say that Joe has no ability such that, after its exercise then, X will be now-actual.

### 4:4.3 – Actual Asymmetry and PAP

If the modality of now-actualizability is to produce a severe argument, the future and the past will have to be asymmetrical regarding now-actualizability. Or, at the least, if the argument is severe, the utilized PAP will demand such an asymmetry (and that asymmetry will be coherent), and that asymmetry will be denied by the occurrence of divine infallible fore-belief. Fortunately (for the sake of producing a severe argument) this is the case. Let us explore why the former is true (the latter will be clear when we examine the argument itself).

The future and past are asymmetrical regarding now-actualizability in this respect: only one past (the actual past) is now-actualizable but multiple logically possible futures are now-actualizable—at least, if we are free. That multiple logically possible futures are now-actualizable is exactly what PAP demands. If Joe is to freely decide to do X, Joe must have an ability such that, after the exercise of that ability then, Joe deciding to do X will be now-actual. But if Joe is free and thus "is able to not decide to do X" (as PAP demands) he must also have an ability such that, after the exercise of that ability then, Joe's not deciding to do X will be now-actual.

Consider the following quote from van Inwagen (1998).

> I would ask you to try a simple experiment. Consider some important choice that confronts you. You must, perhaps, decide whether to marry a certain person, or whether to undergo a dangerous but promising course of medical treatment, or whether to report to a superior a colleague you suspect of embezzling money. (Tailor the example to your own life.) Consider the two courses of action that confront you; since I do not know what you have chosen, I'll call them simply A and B. Do you really not believe that you are able to do A and able to do B? If you do not, then how can it be that you are trying to decide which of them to do? It seems clear to me that when I am trying to decide which of two things to do, I commit myself, by the very act of attempting to decide between the two, to the thesis that I am able to do each of them. If I am trying to decide whether to report my colleague, then, by the very act of trying to reach a decision about this matter, I commit myself both to the thesis that I am able to report him and to the thesis that I am able to refrain from reporting him: although I obviously cannot do both these things, I can (I believe) do either. (p. 373-374)

This quote is supposed to demonstrate our intuitions about what our free will really amounts to—the ability to refrain. And I think it does so quite nicely. However, I think that we can capture even more precisely what our free will amounts to, if I present it in terms of now-actualizability. Consider an "actualization" revision of a piece of the above quote:

> Consider the two courses of action that confront you; since I do not know what you have chosen, I'll call them simply A and not doing A. Do you really not believe that you have an ability such that after the exercise of that ability your deciding to do A will be actual, and that you have an ability such that after the exercise of that ability your not deciding to do A will be actual? If you do not, then how can it be that you are trying to decide whether or not to do A? It seems clear to me that when I am trying to decide which of two things to do, I commit myself, by the very act of attempting to decide between the two, to the thesis that I have an ability such that when exercised, my decision to do A will be actual, and I have an ability such that

> when exercised, my not deciding to do A will be actual. If I am trying to decide whether to report my colleague, then, by the very act of trying to reach a decision about this matter, I commit myself both to the thesis that I have an ability such that after the exercise of that ability the event of my deciding to report him will be actual, and an ability such that after the exercise of that ability, the event of my not deciding to report him will be actual: although I obviously have no ability such that when exercised my having decided to do both will be actual, I can (I believe) actualize either.

I think that it is clear that when we believe ourselves to have freely decided to do something (call it X), we believe that we did have an ability such that, after the exercise of that ability then, we would have not decided to do X. Thus, clearly a necessary condition for free decision is the existence of both such abilities. Thus, we can clearly state the "actualizability" version of PAP as follows:

> PAPΛ
>
> Joe freely decides to do X only if Joe has an ability such that after the exercise of that ability, Joe's not deciding to do X will be actual (*i.e.,* only if Joe has an ability such that, after the exercise of that ability then, a potential truthmaker of the proposition that expresses the non-occurrence of Joe deciding to do X will be actual).[29]

[29] Notice that, once again, we must be careful not to read too much into actualizability. On November 2nd 2004, I had an ability such that after the exercise of that ability, George Bush was re-elected. Clearly, George Bush's reelection was actualizable, and in fact was "now-actualizable" on November 2nd, 2004 and since it is now part of the actual past, it is even now-actualizable today (since we have abilities such that, if exercised, George Bush's reelection would be actual). But notice, that event is not "*now-actualizable by*" any one person. But this is because no one person can cause this event. Clearly, the notion "*now-actualizable by*" includes "now-causability", and as I said before, I wish to avoid including "now-causability" in the notion of "now-actualizability." This is why I have avoided the term "by" and used the term "for." Even though the past is not now-actualizable *by* Joe, it is now-actualizable *for* Joe in that Joe has abilities such that after their exercise the past will be actual.

It is important to note that, Joe not having such an ability is not merely to suggest that he is "unable to do otherwise." Actualizability is not causability. To say that Joe has no such ability is not merely to say that he cannot "bring something besides X about" but literally that he can do nothing but bring X about. If ~X is not now-actualizable for Joe, then the only abilities that Joe has are ones that—if exercised—would be followed by X being actual. In this way, PAPΛ is very literally a version of PAP*.

**4:4.4 – Defining Λ and TNPΛ**

We can now define an operator and TNP that we will need to make this version of the argument valid.

We can now define our new modal operator: "Λ"

"ΛΩ" will read "Ω is true, (thus) the potential truth maker for Ω is now-actual, and Joe now has no ability such that after the exercise of that ability, a potential truth-maker for ~Ω is now-actual."

Notice that ΛΩ will be true for any given true Ω whose potential truth-maker consists of an actual past event (for any true Ω that is past tensed). Since once an event is part of the actual past, it will always be actual, no one (including Joe) has an ability such after the exercise of that ability, that event will not be actual.

Our transfer principle will look pretty much like all the others, and it will be so strong that we will not even need to bother making it temporally sensitive.

TNPΛ

ΛΩ, Λ(Ω⊃Γ) ∴ ΛΓ

In English: the truth of (1) Ω is true, the potential truth maker for Ω is actual, and Joe now has no ability such that after the exercise of that ability, a potential truth-maker for ~Ω is actual and (2) Ω⊃Γ is true, the potential truth maker for Ω⊃Γ is actual, and Joe now has no ability such that after the exercise of that ability a potential truth maker for ~(Ω⊃Γ) is actual; guarantees the truth of (3) Γ is true, the potential truth maker for Γ is actual, and Joe has no ability such that after the exercise of that ability a potential truth maker for ~Γ will be actual.

We will test this transfer principle in a moment; first let us utilize it to construct the actualizability version of theological fatalism.

### 4:5 – The Actualizability Version of Theological Fatalism

#### 4:5.1 – The Argument Formalized

Now I can articulate the actualizability version of theological fatalism. Given the setup I have given it, it is very straight forward. I will symbolize it premise by premise, and explain each one as I do.

Where: "D" reads "Joe decides at noon tomorrow to do X"

"~D" reads "Joe does not decide at noon tomorrow to do X"

"B" reads "God believed yesterday that D"

Call whatever action Joe will decide at noon tomorrow to do X.

1) Joe freely decides at noon tomorrow to do X only if Joe has an ability such that after the exercise of that ability a potential truth-maker for ~D will be actual.

   i. By PAPΛ[30] [31]

2) ΛB

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[30] In correspondence, Linda Zagzebski suggested that some might think that PAP, in terms of actualizability, should be expressed as follows:

Joe freely decides at noon tomorrow to do X only if Joe has an ability AT NOON such that IF JOE EXERCISES THAT ABILITY AT NOON, The potential truthmaker for ~D BECOMES actual AT NOON. (PAPL)

The assumption behind this definition is that Joe must have both abilities (to actualize D and to actualize ~D) AS he actualizes D, if he is to freely decide to do X (*i.e.*, freely actualize D). However, I find PAPL problematic, and I believe so does Zagzebski.

Having the ability (right now) to actualize a truthmaker contrary to the one that Joe is currently (right now) actualizing is not required for Joe to freely decide (right now) what Joe is deciding. What is required for free will is for him to have both abilities up until the very moment one of those abilities is exercised; when Joe exercises one ability he looses (forfeits) the other ability, and it is in that moment (or perhaps the next) that the truthmaker for D becomes actual.

In line with Zagzebski's suggestion to me, intentional action takes a bit of time, albetit a very small amount of time (let's say a nanosecond). So at one nanosecond before noon, Joe has the ability to make D true and the ability to make ~D true. At the moment he exercises one of those abilities (*i.e.,* noon), he simultaneously loses the ability to make the other true. At that moment also, the ability that he exercises corresponds with D's truthmaker becoming actual. (As we will see in the next footnote, I am open to the truthmaker becoming actual later.) Free will requires only the ability to *not actualize as one will* immediately before the choice, not simultaneous with the choice.

For this reason I favor PAPΛ over PAPL.

[31] In light of the last footnote, one might also be tempted by another reformulation of PAP:

Joe freely decides at noon tomorrow to do X only if Joe has an ability such that <u>as</u> that ability is exercised, the a potential truthmaker for ~D will be actual.

Although accepting this definition would not cause any major problems for my argument, I reject this definition simply because it assumes that "ability exercise" and "the truthmaker becomes actual" always occurs simultaneously and it is not so clear that this is the case. It is at least conceivable that one could exercise the "actualize truthmaker" ability at time t, but the truthmaker not become actual until after time t. But since in both situations (*i.e.,* when *ability exercise* and *truthmakers* are simultaneous and when they are not simultaneous) it is still the case that the ability is one such that AFTER it is exercised, the truthmaker is actual, PAPΛ is favorable.

i. *i.e.,* B is true, the potential truth-maker for B (God's believing D yesterday) is now-actual and Joe has no ability such that after the exercise of that ability, a potential truth maker for ~B (God's not believing D yesterday) will be actual. (From the necessity of the past and the classical conception of God's omniscience.)

3) $\Lambda(B \supset D)$

i. *i.e.,* It is the case that if God believed D yesterday then D is true, the potential truth-maker for $B \supset D$ (God's essential omniscience) is now-actual, and Joe now has no ability such that after its exercise the potential truth maker for $\sim(B \supset D)$ will be actual. (by God's essential omniscience.)[32]

4) $\Lambda B$ & $\Lambda(B \supset D) \therefore \Lambda D$

i. By TNP$\Lambda$

5) $\Lambda D$

i. D is true, the potential truth-maker for D (Joe's deciding to perform action X (at noon) tomorrow) is now-actual, and Joe

[32] I argued for this premise above (section 4:3.2). However, as I mentioned in that section, even if divine tautologies do not have truthmakers, a severe actualizability version of theological fatalism can still be made. If divine tautologies do not have truthmakers, the following adjustments could be made to the above argument: Change premise 3 to "$\Box(B \supset Q)$, change premise 4 to "$\Lambda B$ & $\Box(B \supset D) \therefore \Lambda D$, and justify premise 4 by the following transfer principle: $\Lambda P$, $\Box(P \supset Q)$, $\Lambda P$. This principle's second premise does not contain the notion of truthmakers or "ability", but it is still valid. If P is true and Joe has no ability such that after its exercise the truthmaker for ~P is false, but it is logically necessary that P entails Q, then Q must be true (and thus Q's truthmaker must be actual—at least if Q is an ordinary proposition, which it is), and thus ~Q is not-now-actualizable (*i.e.,* Joe has no ability such that after its exercise, ~Q's truthmaker will be actual). I prefer the TNP used in the problem as it appears in the text because it is more uniform and I find its validity a little more "obvious." It is for this reason that I defended the idea of divine tautologies having truthmakers and articulated the argument as I did.

now has no ability such that after its exercise a potential truth-maker for ~D will be actual. (from 2,3 and 4)

6) Joe now has no ability such that after its exercise a potential truth-maker for ~D will be actual.
   i. From 6
7) It is false that Joe freely decides at noon to do X tomorrow.
   i. From 1 and 7

**4:5.2 – The Argument Analyzed**

The truth the first premise was defended above as I defined this version's PAP. I take the not-now-actualizability of the past, and the assumption of classic divine essential omniscience to make the truth of the second and third premises obvious. Lastly, I take it to be obvious from the previous chapters (section 2:3.3.2) that the steps after premise 5 are logically valid and follow from 5. Thus, the argument turns on the truth of 5, which itself can only be derived from 2-4 if TNPΛ is valid. Before we turn to testing TNPΛ's validity, a few comments on the argument are in order.

I think it is fairly clear what has happened here in the argument. The reason that Joe is not free is because his not deciding as he will decide is not now-actualizable. And this is the case because the event of him deciding as he will is actual before it occurs. In short, what has happened in the argument is that the now-actuality of God's infallible fore-belief about Joe's future decision has been "transferred" (via entailment) to Joe's future decision itself. This commits us to the

now-actuality of that decision and thus to the non-now-actualizability of the non-occurrence of that decision. Applied generally, we might say that, the now-actuality of God's past beliefs about the future entail the now-actuality of the future itself, making any other future not-now-actualizable.

Most simplistically, we might summarize the argument in the following way: In order for us to be free, the future cannot be "already written"—it must be "open" in that what will happen is not yet determined. But if God has already had infallible beliefs about the future, it must be "already written" and thus closed; God could not have true beliefs about something (*e.g.,* a future) which is undetermined. In other words, if God has knowledge of the future, the future must "already be there" in order for him to have knowledge of it. But if it is already there, it is now-actual, and its non-occurrence is not now-actualizable. Thus, God's infallible fore-belief is incompatible with human free will.

But of course, the argument does not show that God's past infallible fore-beliefs are the cause of the now-actuality of the future; they merely entail its now-actuality. This argument will not be unique if there are other ways of deducing the now-actuality of the future. But addressing that issue will occur next chapter.

First I will show that the actualizability version of theological fatalism is severe. The argument turns on premise 5; if 5 is true, and D's potential truthmaker is actual, then Joe's not deciding as he will is not now-actualizable. 5 follows from 2,3 & 4 by TNPΛ, so only if TNPΛ is valid is the argument severe. I will now show that TNPΛ is valid.

### 4:6 – The Validity of TNPΛ

I take the validity of TNPΛ to be quite intuitive. If Joe can "do nothing about" the truth of Ω and Ω⊃Γ, it seems very clear that he can do nothing about the truth of Γ. And this is pretty much what TNPΛ suggests: "Ω and Ω⊃Γ is true," and Joe has no ability such that after its exercise, this fact will be different, thus Γ must be true and Joe has no ability such that after its exercise this fact will be different. But instead of relying on intuition, let us look specifically at the failure of all the standard TNP counter examples.

This transfer principle is not subject to falsification by any of the previous counter examples. Clearly the "contradiction counterexamples" will fail since truth is built into the definition already. Additionally we will not be dealing with situations in which Ω or Γ are tautologies, so we will not be dealing with situations in which TNPΛ is trivially valid. This takes care of the first two considerations of the last chapter, now let us consider the others.

#### 4:6.1 – Backtracking Counter Examples Fail

Attempts to falsify TNPΛ with "backwards tracking" counter examples like the "radium decay" counter example of last chapter will also fail. Recall that, in the example, the time frame of the example was set at T3; thus T3 will be considered the present moment. In the counter example, the radium decayed at T2 but at T1 Joe had a radium destroying machine, and could have destroyed the radium at T1. Let R be the proposition "The radium decayed at T2" and let E be the proposition "The radium was not destroyed at T1." Clearly the following is true:

$\Lambda R$

R is true, the potential truth maker for R (the decay of the Radium at T2) is now-actual (since at the present moment (T3) the decay of the Radium is a past event) and Joe has no ability such that after the exercise of that ability a potential truth-maker for ~R will be actual. The following is also true:

$\Lambda(R \supset E)$

$R \supset E$ is true (*i.e.,* if the radium decayed at T2 then it was not destroyed at T1), the potential truth maker for $R \supset E$ is actual[33] and Joe now has no ability such that after the exercise of that ability a potential truth-maker for $\sim(R \supset E)$ will be actual. But exactly what should be true, if this TNP is valid, is true:

$\Lambda E$

E is true and the potential truth maker for E (the event of the radium not being destroyed at T1) is actual and Joe <u>now</u> has no ability such that after the exercise of that ability a potential truth maker for ~E (the destruction of the Radium at T1) is actual.

Before T1, at least according to PAP and our belief in free will, Joe had that ability. But he does not now. We might try to shift the time frame of the example to

[33] In this case, I would suggest that the truthmaker for $R \supset E$ is the physical facts about the radium, including the fact that it must exist in order to decay.

T1 to try to make the counter example work. Supposedly, at that time ΛE would be false. But such a counter example could not get off ground because at that time ΛR will also be false, seeing that the indeterminate decay of the radium will not be actual at that time.[34]

Clearly, backtracking counter examples can not falsify TNPΛ.

### 4:6.2 – The "Car Locking" Counter Example Fails

Recall the car locking example from last chapter, and that in it the following is true:

(a) At t3.1 the car is wired in a particular way (such that, given the state of the world at t.31, it will perform a timer check at t5 and lock the doors, unless Joe presses the remote button before it performs its checks at t4.) Let us call the proposition that expresses this fact "W".
(b) It is also true that Joe never has and never will have intentional causal power over W (since the car was just constructed, and Joe never could have had a causal influence on it).
(c) At t3.1 it is also the case that Joe could not prevent the doors from locking, since Joe has a remote that only locks the doors and Joe is too far away from the car to prevent it from locking. Let us call the proposition that expresses this fact "F".
(d) It is also the case that Joe never has and never will have any intentional causal power over F (regardless, the technicians would have made sure that Joe had the remote, was close enough to lock it with the remote, but far enough to not be able to prevent it from locking).
(e) It is also the case the conjunction "W and F" entails that the doors will lock at T5 (either Joe will press the remote before t4, or he won't. If he does, the computer will recognize the remote input at t4 and lock at t5. If he does not the computer will perform a timer check at t5 and lock the door at t5. Let us call the proposition that expresses the fact that the doors will lock at T5 "L".
(f) And again, Joe never has and never will have any causal power over the fact that "W and F" entails L.

This being true, the following is clearly the case:

Λ(W&F)

[34] Once this version of the argument is fully understood (in the next chapter), we will realize that the event of the Radium decaying at T2 is actual before T1, and that this fact (and all others like it) are what generate the dilemma. But even though this is the case, this revised counter example will still not invalidate TNPΛ because ΛE will still be true because Joe will still have no ability such that after its exercise, the radium will be destroyed at T1, because Joe not destroying the radium will be now-actual at T1 as well.

*i.e.,* it is true that the car is wired as it is and that Joe cannot prevent the doors from locking, and the truthmaker for this proposition (the wiring of the car and the state of affairs of Joe being a certain distance from the car and only having a remote that locks the car doors)[35] is now-actual, and Joe has no ability such that, after its exercise then, a truthmaker for ~(W&F) is now-actual.

The following is also true:

Λ[(W&F)⊃L]

It is true that the car being wired as it is plus the fact that Joe cannot prevent it from locking entails that the car doors will lock, the truthmaker for this proposition is actual,[36] and Joe now has no ability such that, after its exercise then, a truthmaker for ~[(W&F)⊃L] will be now-actual.

If TNPΛ is valid, the following should hold…:

ΛL

[35] Although I don't think this state of affairs is problematic as a truthmaker, others might not be convinced. However, if it is problematic, this helps my argument here; it does not hinder it. In order for this counter example to falsify TNPΛ, it would have to show that Λ(W&F) & Λ[(W&F)⊃L] are true, while ΛL is false. However, if (W&F) or [(W&F)⊃L] does not have a truthmaker, then Λ(W&F) or Λ[(W&F)⊃L] (respectively) is false since their truth would require (W&F) and [(W&F⊃L] to have truthmakers. And if either Λ(W&F) or Λ[(W&F)⊃L] were false, the car lock counter example would fail, regardless of whether or not ΛL is true. I will assume that sense can be made out of the truthmakers for (W&F) and [(W&F⊃L] to push the counter example along. But simply keep in mind that, if no such sense can be made, this merely indicates that the counter example cannot be used to falsify TNPΛ, which is exactly what I am arguing for in this section.

[36] The truthmaker for this proposition might be a little harder to find. It would probably something like the following: physical facts about how the car being wired entails that it will lock unless it is prevented from doing so and about how it is physically impossible for Joe to prevent the car from locking, and physical facts about the world being configured such that, if something will occur unless prevented and it is unpreventable, then it will occur. But, as a truthmaker, this might fall short. But again, if it does, this bolsters my argument, it does not hinder it. See footnote 35

…and it does! Notice how ΛL translates: The door will lock at T5 (*i.e.,* L) is true, its truthmaker is actual,[37] and Joe has no ability such that, after the exercise of that ability then, a truthmaker for ~L will be now-actual. Clearly, this is the case. That the car's doors will lock is true, the truthmaker for this is actual, and—even though Joe could play a causal role in them locking—he has no ability such that, after its exercise, the doors will not lock because he cannot prevent the doors from locking. ΛL is not false while Λ(W&F) or Λ[(W&F)⊃L] are true, and thus the counter example fails.

The failure of this counter example should not be surprising however. Recall that the car lock counter examples falsified the TNP utilized in the argument that concluded Joe could not intentionally cause the future; *i.e.,* that he could not intentionally cause what will happen. But TNPΛ does not suggest that Joe cannot actualize what will happen; it suggests that Joe cannot not *actualize what will happen.* Naturally, TNPΛ would not be susceptible to such a counter example.

### 4:6.3 – Agglomeration Fails

[37] The truthmaker for L could be a couple of things. The truthmaker could simply be the future event of the car doors locking; I will argue in the next chapter that if you take truthmaking seriously, and accept that propositions that accurately predict the future (such as L) are true, you are committed to including the future in your ontology—and if I am right, L's truthmaker will simply be the now-actual future event of the doors locking at T5. However, one might reject that all propositions that accurately predict the future are true, but still might want to suggest that L is true, given the fact that the locking of the door is inevitable. If that is the case, the truthmaker for L will be easy to find in the present state of affairs; the state of affairs of the car being wired as it is, Joe having the remote that he does, Joe being where he is and the car's computer's being in the state that it is in (after two previous unsuccessful remote checks) could easily function as L's truthmaker. In any event, L has a truthmaker and Joe has no ability such that, after its exercise then, the truthmaker for ~L will be actual.
But of course, if one finds neither of these state of affairs satisfactory as a truthmaker for L, this will not make the counterexample work to falsify TNPΛ. The same reasons that one would reject such truthmakers for L would be the same reason one would reject truthmakers for (W&F) and [(W&F)⊃L). And if they are rejected, as I pointed out above, the entire counter example fails (see footnotes 35 and 36).

The Λ operator is quite similar to the $N_{©}$ operator since they are both in terms of "being able to refrain" (the $N_{©}$ operator in terms of being able to not intentionally cause what will occur, and Λ operator is in terms of having an ability such that after its exercise something other than what will occur will be actual). Thus, one might think that McKay and Johnson's agglomeration counter example will serve to invalidate TNPΛ. But in fact, this transfer principle is motivated by (and in fact essentially is) the transfer principle that McKay and Johnson (1996) develop in their article to avoid that very counter example.

Recall that the agglomeration example's time frame is after the existence of coin C, and after the fact that that coin C was not tossed by Joe, but could have been tossed by Joe. Notice that, Λ~H reads: "~H is true, the potential truth maker for ~H (the past state of affairs of C never coming up heads) is now-actual, and Joe now has no ability such that after the exercise of that ability C comes up heads" is true. Also notice that Λ~T is true for the similar reasons. And after the coin is destroyed, both Λ~H and Λ~T are clearly true.

To make the counter example work we would need a parallel rule to the $N_{©}\alpha$-Principle:

Λα- Principle

$\Box\beta \supset \Lambda\beta$

I will assume its validity.[38]

An attempt at a counter example would look like the following:

1) Λ~H
2) Λ~T
3) □{~H⊃[~T⊃(~H&~T)]} A logical truth
4) Λ{~H⊃[~T⊃(~H&~T)]} from 3 by the Λα-Principle
5) Λ[~T⊃(~H&~T)]} from 1 and 5 by the Λ-Principle
6) Λ(~H&~T) from 2 and 7 by the Λ-Principle

The move from 1&2 to 6 is obviously valid if TNPΛ is valid, but this is a problem only if Λ(~H&~T) is false. It reads: "It is true that 'C did not come up heads or tails,' the potential truth maker for that proposition is now-actual, and Joe now has no ability such that after its exercise, the potential truth maker for "C will come up either heads or tails" is actual." But since the potential truth-maker for the later would clearly be a state of affairs involving C, but C no longer (and never will again) exists, Λ(~H&~T) is clearly true! Thus the counter example does not force us accept the truth of a conclusion that clearly is not true, and the counter example does not force us to reject TNPΛ but in fact is an example of TNPΛ working.

[38] Since logical truths may not have truthmakers, the validity of this rule is not apparent. If it is not valid, an agglomeration counter example cannot even be constructed because it relies on this principle; and if no such counter example can be constructed it could not be used to show the invalidly of TNPΛ. Thus, the invalidity of this principle would not work against my argument that the actualizability version of theological fatalism is severe, but for it. However, for the sake of argument, let us assume that it is valid; or at least let us assume that, the logical truths that will be used in the example do have truthmakers and thus, in their case, the Λα-rule can be used.

We could alter the counter example to make the conclusion come out false. If we back up to a time where C still exists but has not yet been tossed by Joe, clearly Joe now has an ability such that after the exercise of that ability C will come up either heads or tails, and thus Λ(~H&~T) is false. But in that case, both Λ~H and Λ~T are also false. There is some force such that if Joe tossed C by the force, it would come up heads, and Joe now has the ability to toss C by that force (even though he does not know what force it is). The same is true for C coming up tails. Thus, once again the counter example is adverted.[39]

**4:7 – Conclusion**

The severity of the argument turned on the validity of TNPΛ. TNPΛ is very intuitive and every attempt to falsify TNPΛ has failed. It seems that, given the assumptions of classical divine omniscience and free-will given in the first chapter, the fatalist conclusion is unavoidable. In short, the classical conception of divine omniscience and traditional definition of free will is incompatible with humans possessing free will.

In the next chapter we will explore exactly what this problem amounts to, and we will try to discover if there is some other problem "lurking" at its core that must be dealt with to avoid the fatalist conclusion. Doing so will reveal what we must do to avoid the fatalist conclusion.

[39] If you are not yet convinced of the validity of TNPΛ, see McKay and Johnson's article (1996). They actual have four such TNP's, all of which they claim are just as strong as van Inwagen's Beta-Principle but also avoid the agglomeration counter example. The one they think is the strongest and most desirable is essentially TNPΛ.

# Chapter 5

# The Reduction of Theological Fatalism to Logical Fatalism

## 5:1 – Introduction

### 5:1.1 – The Why Question

In the last chapter, we discovered that the modality of actualizability can be used to generate a severe version of theological fatalism. And this version of theological fatalism was the most severe of all those considered so far. However, I will argue that the "root" of the fatalism problem has not yet been identified. In short, we have not yet identified why Joe is not free. (Although I hinted at it last chapter.)

One might object: "Of course we have identified why Joe is not free; Joe is not free because God had infallible fore-beliefs about Joe's future action." But anyone trained in the basics of logic will know that this is a bad objection. What theological fatalism shows is that divine infallible fore-belief entails that Joe is not free; thus, what it establishes is that there is a logical incompatibility between Joe's freedom and God's infallible fore-belief. But the truth of one thing (*e.g.,* God's infallible fore-belief) entailing the falsity of another (*e.g.,* Joe's freedom) does not indicate that the truth of the former is responsible for the falsity of the latter. Entailment is not an explanation. Thus, one cannot conclude that God's infallible fore-belief is the reason for (*i.e.,* what is responsible for) Joe's non-freedom.

Why is entailment not an explanation? Entailment is not an explanation because the concept of entailment does not include the concept of causation,

explanation or responsibility. If P entails Q, all that follows is that P cannot be true while Q is false; but this does not mean that P explains, is responsible for, nor causes Q in any way. For example, take the argument:

(1) I am watching a program on my TV

(2) If I am watching a program on my TV, my TV is on.

(3) Therefore my TV is on.

Notice that the truthmakers for the premises are not the cause of the truthmaker of the conclusion—*i.e.,* notice that the truth of the premises is not responsible for the truth of the conclusion. The truthmaker for the conclusion is the state of affairs of the TV being on. But what is responsible for the TV being on is (more than likely) someone actually turning it on. Neither the state of affairs that is my watching of the TV, nor the fact that watching the TV requires it to be on (nor the combination of these facts) causes the TV to be on. The fact that (1) and (2) entail (3), does not justify a conclusion that (1) and (2) are responsible (are the explanation for/are the cause of) the truth of (3). No valid argument demonstrates that its premises are responsible for the truth of the argument's conclusion.

Thus, even though the theological dilemma shows that divine infallible fore-belief entails that Joe is not free, it does not show us what is responsible for the non-freedom of Joe. Clearly we have established that Joe is not free, but we have not answered "the why question": "why is Joe not free; what makes Joe unable to refrain?" It is to this question that we shall first turn.

**5:1.2 – Roadmap**

In section 5.2 I will argue that the answer to the why question is this: Joe is not free because his future decision to do X is now-actual before it occurs. But I will also show that God's omniscience (classically conceived) commits us to the now-actuality of the future because prior truth is entailed by God's omniscience (classically conceived) and prior truth commits us to the now-actuality of the future. In section 5:3 I show that the actualizability theological fatalist argument is reducible to a logical actualizability fatalist argument. In section 5:4 I will show that the logical argument of 5:3 seems inescapable because of our convictions regarding bivalence and PAP. Thus, the most severe dilemma is the incompatibility of bivalence, PAP, and free will. Thus, to avoid the fatalist conclusion, we will have to abandon either bivalence or PAP. In sections 5:4-5:6, I will consider objections to the arguments presented in chapters 4 and 5. (They need not be summarized here; I will summarize them before section 5:4). Section 5:7 will be my concluding remarks.

## 5:2 – The Answer to the Why Question: Prior Truth and the Now-Actual Future

### 5:2.1 – The Root of the Problem; The Answer to the Why Question

In an attempt to answer *the why question*, one might simply state that Joe is not free because he is unable to not decide as he will. Recall that "D" reads "Joe will decide at noon tomorrow to do X." One might suggest that Joe is not free because he has no ability such that, after the exercise of that ability then, the truthmaker for ~D will be now-actual. But this answer only backs up our question; we are now forced to ask: Why does Joe not have such an ability? So, most precisely, we can state *the why question* as: "What makes ~D's potential truth maker not now-actualizable for Joe."

As I hinted at last chapter, I think the answer to this is clear. What makes something not-now-actualizable is the being now-actual of that which stands in contradiction with it. Thus, what makes *~D's potential truthmaker not now-actualizable for Joe* is the now-actuality of D's potential truthmaker. More precisely, it is the now-actuality of *Joe deciding at noon tomorrow to do X* that makes *Joe not deciding at noon tomorrow to do X* stand in contradiction with something that is now-actual and thus makes Joe unable to actualize ~D's potential truthmaker (and thus makes Joe un-free).

Of course, once it is rearticulated that Joe could be anyone, and X could be anything, we realize that all our future actions are now-actual before they occur. Thus, in general, it is the now-actuality of the future that is responsible for the non-freedom of all human kind. The future's positive ontological status makes any other future not-now-actualizable for anyone, and thus makes any human not deciding as they will not now-actualizable.

But of course, at this juncture, thinking that we have only backed up the question again, one is inclined to ask: "Why is the future now-actual?" However, I do not think that there will be any satisfactory answer to *this* question. If the future is actual, the only satisfactory philosophical or scientific answer to the question will simply be "because that is the way the universe is" or perhaps "those are just the metaphysical facts." (One would be forced to say the same thing if asked why the present is now-actual.) Thus I think that we have answered the why question as satisfactorily as we can, and we can truthfully say that it is the now-actuality of the future that is responsible for human non-freedom.

However, if the now-actuality of the future is responsible for human non-freedom, there is another related and very important question that must be asked: "Why must one be committed to the now-actuality of the future? Can't we just *give it up* to avoid the fatalist conclusion?" Yes, if we could give it up, the fatalist conclusion would be avoided; but giving it up is not easy. It is to this question that I now turn.

### 5:2.2 – Commitment to the Future

Clearly, the classic conception of divine omniscience commits us to the now-actuality of the future. But to see why, it will be necessary to first examine another reason that we might be committed to the now-actuality of the future.

#### 5:2.2.1 – Prior-Truth (*i.e.,* Truth about the Future) Commits Us to the Now-Actuality of the Future

A very simple modification of the argument that showed that pastism is preferable to presentism, can be used to show that the future is now-actual and thus that omnitemporalism[1] (the view that the past, the present, and the future should be included in one's ontology) is preferable to pastism. Recall that, in that argument, the truth of ordinary propositions about the past such as [E] ("Dinosaurs once roamed the earth") commits one to the now-actuality of the past; only past states of affairs can serve as truthmakers for such propositions.[2] In the same way, the truth of ordinary propositions about the future (*e.g.,* Joe will decide at noon tomorrow to do X) commits one to the now-actuality of the future. No other states of affairs but future

[1] This is Armstrong's (2005) term
[2] There are not presently obtaining states of affairs that could viably serve as their truthmakers.

states of affairs could be the truthmakers for such propositions,[3] and thus one is committed to viewing those states of affairs as now-actual. Thus, one can conclude, truth about the future (*i.e.,* the fact that there are propositions about the future which are true—what I shall call the fact of "prior truth") commits one to the now-actuality of the future.

Both Armstrong (2005) and Parsons (2005) make this same argument. As Armstrong writes:

> Once we accept the demand for truthmakers, then, I suggest, there is a strong Prima Facie case for accepting the Omnitemporal view…Surely there are truths about the past…And any upholder of truthmakers will demand truthmakers for [these] truths. That there are truths about the future is perhaps a little more controversial, but not, I think, seriously so. 'What's to come is still unsure' Shakespeare's song tells us. Unsure perhaps, but that is an epistemological matter. There can be truth without knowledge…it is likely that…many, many…statements now made about the future are true. Truthmakers are required for these truths. The Omnitemporal view provides straightforward truthmakers for all truths about the past and the future. The past exists. The future exists. They are 'there' (they exists, they are real) to be truthmakers. (145-146)

Armstrong goes on to point out that Tooley (1987), a prime defender of pastism argues against presentism by demanding that truthmakers are required for past truths;

[3] There might be a few exceptions to this rule. Propositions about future states of affairs that are causally determined to happen by present physical events might have non-future truthmakers. The present physical events that causally determine the future event could serve as the truthmaker for the future tensed proposition. (For example, the truthmaker for "The sun will rise tomorrow" could be the present physical condition of the earth (*e.g.,* its rotation on its axis), the sun, and their physical relationship.) But not many events, at least on earth (because of the "unpredictability of life forms") are thought to be like this and thus most future tensed propositions must find their truthmakers in the future. Certainly (at least if we believe that we are free) future human actions are not thought to be causally determined by prior physical events, and thus their truthmakers could only be the future events to which they refer. And, one might argue, if you are already committed to the future anyway, you might as well admit that the truthmakers for all true propositions about the future (even ones about physically determined events) are located in the future. This line of reasoning might be wrong, and some future tensed propositions might find their truthmakers in the present; but for simplicity I will simply state that all true propositions about the future have their truthmakers in the future.
Of course, one could abandon the view that there are non-determined events in the universe and accept a complete deterministic picture of the universe; by doing so, one could have all the future truths they want and yet find all of their truthmakers in the present. But of course, if one were to take this view, the fatalist problem would not be escaped, but only magnified. (But the question: "Is determinism compatible with free will is a separate problem." I will deal with it briefly in chapter 6.)

and yet he ignores the argument from "future truth" in favor of omnitemporalism.[4] Armstrong continues:

> It will be physics and cosmology that tell us the true nature of time. It is, perhaps, only in the philosophical disputes between Presentism, Pastism, and the Omnitemporal view that truthmaker theory seems to favour the Omnitemporal view by indicating problems for the other two positions. (150).

Parsons makes essentially the same argument.

> Realists about the past and the future have no problem coming up with truthmakers for propositions about the past and future. Past and future objects will do. Take the truth "there were dinosaurs." The realist about the past can say that past dinosaur lineages are the truthmakers for this proposition. If there had not been dinosaurs, those lineages would have had to be different in some intrinsic respect…or [not existed] at all. To put things more simply, the realist about the past can say what would be different about the world as a whole, had the proposition "there were dinosaurs" been false. The anti-realist about the past has a very hard time answering this question. (p. 11-12).

Parsons is more concerned with the debate between pastism and presentism (Parsons goes on in length about presentist's attempts to get out of the truthmaker problem). But, very clearly, both Armstrong and Parsons share the correspondence intuition and suggest that past and future truths must commit one to the now-actuality of the past and the future.

The same type of thought experiment that was used to seal the deal for pastism in favor of presentism can be used to seal the deal for omnitemporalism in favor of pastism. Suppose that pastism is right, and thus only the past and the present are now-actual. Now consider a world that began with ours, that has an identical history as ours, but ends at the present moment. Assuming pastism is right, the ontology of that world is identical to the present ontology of our world, thus (since

[4] To be fair to Tooley, Tooley does attempt to develop a three-valued logic so as to avoid commitment to prior truth and the now-actual future in an attempt to defend his pastists views. Bourne (2004) suggests that Tooley's three valued logic was unsuccessful, and I agree. But Bourne develops a three valued logic that I believe is successful, and that I believe Tooley would be satisfied with as well. I will discuss this next chapter.

truth supervenes on actuality) what is true here must be true there. There are truths about the future in our world and thus the same things must be true about the future of the other world as well. But that world ends before anything else happens; that world has no future and thus the same things cannot be true about the future of that world. Thus, we are forced to reject pastism in favor of omnitemporalism.

#### 5:2.2.2 – Why Classic Divine Omniscience Commits One to the Future

Prior truth commits one to the future. But I did not assume prior truth last chapter, as I set up the now-actualizable version of theological fatalism. (Recall, in section 4:2.6, I only assumed past and present truth). So how does the realization that prior truth commits one to the future help one make sense of the fatalist dilemma?

Although prior truth was not assumed in setting up the argument, prior truth worked its way into the argument anyway. Prior truth is itself entailed by the classical conception of God's omniscience, and it is because of this that the classical conception of God's omniscience commits one to viewing the future as now-actual (and is thus incompatible with free will). Recall what was said about the classical conception of Divine Omniscience in chapter 1:

> Most precisely articulated, classically conceived, God's omniscience includes, for every proposition about the past, present, or future, knowledge that it is true or knowledge that it is false. And it is for this reason that divine infallible foreknowledge is classically attributed to God: the classical conception of divine omniscience includes God's possession of infallible beliefs about the future.

The classical conception of God's omniscience, which demands that God *knows everything*, demands that God knows the past, the present and the future; and since knowledge requires truth, the classical conception of God's omniscience demands

that there must be truths about the past, the present, and the future. Thus, the classical conception of God's omniscience entails that there is prior truth.

And now we can understand exactly why divine omniscience commits us to the now-actuality of the future and is thus incompatible with free-will. Before, in chapter 4, we summarized the now-actualizability version of the theological fatalist argument in the following way:

> …if God has already had infallible beliefs about the future, [the future] must be "already written" and thus closed; God could not have true beliefs about something (*e.g.,* a future) which is undetermined. In other words, if God has knowledge of the future, the future must "already be there" in order for him to have knowledge of it.

But now we can understand the argument of chapter 4 more accurately. God having infallible beliefs about the future entails that his beliefs about the future are true. If his beliefs about the future are true, then the future tensed propositions which he assents to in having those beliefs are true. But, in that case, those propositions must have truthmakers; and those truthmakers must be the future events to which they refer.[5] Thus, even though "If God has knowledge of the future, the future must already be there for God to know" is an acceptable way of understanding the validity of last chapter's argument, this understanding is incomplete. More accurately, it can be said that *the reason infallible fore-belief is incompatible with free will is this: the states of affairs of the future must be now-actual (to serve as truthmakers) if the propositions about the future to which God assents (when he has infallible-fore beliefs about the future) are to be true.*

[5] Of course, note the exceptions noted in footnote 3

So, in short, Classic Divine Omniscience commits one to the future because it commits one to prior truth—which, in turn, commits one to the now-actuality of the future.

### 5:3 – The Reduction of Theological Fatalism

#### 5:3.1 – What Theological Fatalism Reduces To

Thus, the only severe version of theological fatalism is actually reducible to a logical version of the fatalist argument: one in terms of prior truth.

The same thing makes both prior truth and a classical conception of divine omniscience incompatible with free will: each doctrine commits one to the now-actuality of the future (the fact that is responsible for Joe's non-freedom). However, it is in virtue of entailing prior truth that divine omniscience entails the now-actuality of the future. Thus it is in virtue of entailing prior truth that divine omniscience is incompatible with human free will. Thus the only severe theological fatalist argument is reducible to a fatalist argument that foregoes a commitment to classic divine omniscience and instead utilizes a commitment to prior truth. We shall call the latter argument the Actualizability Logical Fatalist Argument.

Arguments quite similar to the latter argument have been made by Aristotle (which we will discuss in section 5:7.1), Taylor (1992; ch 6), and recognized by many others. Such arguments begin with PAP, assume prior truth, and derive non-freedom.

Where: "D" reads "Joe decides at noon tomorrow to do X"

"~D" reads "Joe does not decide at noon tomorrow to do X

Call whatever action Joe will decide at noon tomorrow to do X.

1) Joe freely decides at noon tomorrow to do X only if Joe has an ability such that after the exercise of that ability the potential truthmaker for ~D will be actual. (PAPΛ)
2) D is now true. (by prior truth)
3) If D is now true, then ΛD (*i.e.,* D's potential truth-maker is now-actual, and (thus) ~D's potential truthmaker is not now-actualizable for Joe). (by LCTT)
4) ΛD
5) Joe now has no ability such that, after its exercise then, the potential truthmaker for ~D will be now-actual.
6) It is false that Joe freely decides at noon tomorrow to do X.

It is important to note here (and we will discuss why this is important later in section 5:5) that this argument does not rely on the fact that the past is necessity, nor does it rely on a transfer of necessity principle. It does not suggest, "The past truth of D, plus the fact that the past is necessity, allows us to transfer the necessity of the past to the future event entailed by D." The Actualizability Logical Fatalist Argument no where mentions the fact that the past is necessary and it does not utilize a TNP. It can be summarized simply as: "There are truths about the future, the future must be now-actual since those truths must have truthmakers, thus Joe not acting as he will is non-now-actualizable for Joe."

It is true that what I have done in chapter 4 and 5 is refined and given a precise definition to the kind of necessity that the past has. But what I have shown is that prior truth entails that the future also has that same kind of necessity. However, my argument that shows this does so without relying on the fact that the past has that kind of necessity and without relying on that necessity transferring over entailment.

**5:3.2 – Now We Have a Problem for Everyone**

And it is very important to realize that since this argument's premises do not involve God at all, this is a fatalist argument with which even the atheist must deal. The atheist may have been uninterested up to this point, seeing that we have been assuming God's existence to produce the theological fatalist argument. But the same conclusion can be generated without assuming God's existence. The atheist should now be worried.

**5:4 – The Most Severe Dilemma**

Here I will argue that the reduction of theological fatalism suggests that the most severe fatalist dilemma is the incompatibility of bivalence, PAP, and free will.

**5:4.1 – Avoiding the Fatalist Conclusion by Denying Prior Truth**.

There is a very straightforward way to avoid the fatalist conclusion: simply deny that there are prior truths. If propositions about the future have no truth value, they require no truthmakers, and thus there is no demand for the future's positive ontological status. Although this move may be straightforward; it will not be easy.

First, giving up prior truth is impossible for the traditional theist who accepts the classic conception of divine omniscience. Since knowledge requires truth, and the

classic conception of divine omniscience includes God having for every proposition about the past, present, or future, knowledge that it is true or knowledge that it is false, the classic conception of divine omniscience entails the Principle of Bivalence—the doctrine that all propositions (including propositions about the past, present and the future) have a truth value: either true or false. Thus, those who accept the classic conception of divine omniscience are bound to the doctrine of prior truth; the classic conception of omniscience entails it.

But giving up prior truth will not be much easier for anyone else. Regardless of whether or not one is an atheist, theist, or accepts classic omniscience—a rejection of prior truth will require a rejection of the afore mentioned Principle of Bivalence.[6] However, bivalence will not be easy to reject. Apart from being quite intuitive,[7] it is a fundamental axiom of logic—the basis of all reasoning. Thus, a rejection of bivalence would essentially call into question the legitimacy of the entire logical system; a system which—apart from having a great track record of leading to truth—is the foundation of mathematics, the sciences, and every other intellectual pursuit. A rejection of bivalence would require us—at least if we wanted to continue reasoning—to rewrite logic from the bottom up. We would have to rewrite the logical axioms, and systemize a new rule system (derivation rules, tree rules, etc.) based on those axioms that was both complete and sound.

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[6] That is of course, if one does not reject the law of non-contradiction. I suppose that one could reject prior truth to avoid a commitment to the future but still maintain bivalence by suggesting that every proposition about the future is false. If this were the case, it would still be true that every proposition had a truth value (either true or false) and thus bivalence would be upheld; it would "simply" be the case that every proposition about the future was false. But of course, this would mean that both D and ~D would be false, and this stands contrary to the law of non-contradiction. For this reason I reject this as an option, and for simplicity I will ignore it.

[7] If Joe really does decide to do X, it seems perfectly clear that one who uttered "Joe will decide to do X" before Joe did X, was speaking something true as they spoke those words.

Prior truth, divorced from its logical connection to bivalence, might not be that hard to give up. Perhaps some would be willing to say that there are no truths about future human actions, until those actions are performed. But it is prior truth's logical connection to bivalence that makes giving it up so problematic and nearly impossible.[8]

### 5:4.2 – Avoiding the Fatalist Conclusion by Denying PAP

But of course, there is one more option. One could accept prior truth and thus the fact that the future is now-actual but deny that the now-actuality of the future stands in contradiction with free-will. One could simply say that not deciding as one will need not be now-actualizable in order for free will to be possible. This would be to say that Joe having an ability such that, after its exercise then, his not deciding as he will would be now-actual, is not required of Joe if Joe is to be free. But notice that this is simply a denial of PAP. It is to suggest that one's future actions/decisions could be inevitable and unavoidable—that one could not even have the ability to not act as they will—and yet one could still act/decide freely when they do so. But this seems just as hard to accept as a denial of bivalence.[9]

### 5:4.3 – The Most Severe Dilemma: PAP, Bivalence and Free Will

So, in short, giving up bivalence or PAP would allow us to avoid the fatalist conclusion, but doing either seems to be highly problematic. In fact it seems that being unable to give up these two assumptions lies at the heart of the problem. We

[8] I will discuss how one might go about trying to rewrite logic in chapter 6.
[9] Keep in mind that the version of PAP used throughout this dissertation—and thus the version that is being denied here—is different than the one supposedly shown to be false by Frankfurt counter examples. We will discuss in length the difficulty of giving up this principle (and the failure of Frankfurt counter examples) in chapter 6 (section 6:2.1).

could avoid the fatalist conclusion if only we could give up bivalence or PAP, but we can do neither because of their apparent un-deniability.

I take it to be obvious that, if multiple sets of premises will (validly) lead to the same conclusion, the most severe version of the argument is the version in which the premises are the most basic and undeniable. Thus it seems that, the most severe version of the fatalist argument—even more severe than the theological or logical versions we have considered so far—would utilize bivalence and PAP. In other words, we could capture the most severe version of the fatalist argument in the following way:

1) PAP holds.
2) If PAP holds then we are free only if the future is not now-actual.
3) Bivalence holds.
4) If Bivalence holds, the future is now-actual.
5) Therefore, we are not free.

This could be summarized in the following way: PAP requires *not acting as we will* to be now-actualizable if we are to be free, and thus requires it to be the case that there be nothing now-actual that stands in contradiction with us not acting as we will—and thus requires the future to not be now-actual—if we are to be free. However, bivalence entails that all propositions about the future (including ordinary propositions about human future action) have a truth-value, and thus—since such propositions must have truthmakers—bivalence requires the future to be now-actual. Thus, the mutual truth of PAP and bivalence entails that no human is free.

In this way, the most fundamental dilemma that lies at the heart of the fatalist argument is identified as the mutual incompatibility of PAP, bivalence and free will.

### 5:4.4 – The Only Ways Out: Give up PAP or Give up Bivalence

Now that the fundamental and most severe dilemma has been identified, it is time to start looking for ways out—ways to avoid the fatalist conclusion. I argue that there is no other way to avoid the fatalist conclusion besides either denying PAP or bivalence. But we will save considering ways of doing so for the next chapter.

For now, in order to bolster the intuition that rejecting PAP or bivalence is the only way to avoid the fatalist conclusion, let us turn to objections to the arguments presented in chapter 4 and 5 up to this point. First we will rely on the history of the debate on fatalism to provide some candidates for solutions. We will look at what others have said about logical fatalism generally conceived (5.5), and then about theological fatalism generally conceived and see if their solutions can be adapted to deal with the dilemma presented above (5.6). We will see that they fail and we will then examine two objections that deal specifically with the dilemma as I have raised it (5.7).

## 5:5 – An Objection to Logical Fatalism

There are a number of arguments that are identified under the label "logical fatalism." Aristotle[10], Ockham,[11] Zagzebski (1991; ch 1), and Bernstein (in Kane 2002a) all lay out logical fatalism arguments that parallel the theological fatalism argument given in chapter one. Roughly put, they go something like this:

[10] See *On Interpretation* 9 in Mckeon (1941). As it turns out, Aristotle puts forth two logical fatalist arguments. The latter is the one more like the argument I propose above.
[11] See Adams, and Kretzmann (1983)

Where: "D" reads "Joe decides at noon tomorrow to do X"

"~D" reads "Joe does not decide at noon tomorrow to do X"

Call whatever action Joe will decide at noon tomorrow to do X.

1) If Joe is to be free, it must be possible* for Joe to not decide at noon to do X. (PAP)
2) D was true yesterday.[12]
3) The past is now-necessary*.[13]
4) It is now-necessary* that D was true yesterday.[14]
5) It is now-necessary*: "if D was true yesterday, then D is true."[15]
6) It is now-necessary* that D is true.[16]
7) It is now-necessary* that Joe will decide at noon to do X tomorrow.[17]
8) Therefore, Joe is not free[18]

Widerker (1989), Zagzebski (1991), Pike (1965), and Fischer (1989) have all objected to such versions of the logical argument, suggesting that it is not as severe as theological fatalism. Essentially they challenge the truth of premise (4), suggesting that its derivation from (2) and (3) is not justified. "The past is now-necessary*" is only true in the sense that all past *events* are now-necessary*. *The being true of a*

[12] from prior truth
[13] the necessity of the past
[14] from (2) and (3)
[15] This would hold essentially because propositions do not change truth-value.
[16] This move would utilize a TNP: $\Box^*P, \Box^*(P \supset Q) \therefore \Box^*Q$
[17] This follows from 6, by the definition of D.
[18] from 7 and 1.

*proposition* is not really an *event* in the classical sense, thus it is not an event that now has the necessity of the past. Thus, "it is now-necessary* that D was true yesterday" does not follow from (2) and (3) and thus that necessity cannot be ultimately "transferred" to Joe's future decision. On the contrary however, it is argued, God's infallible fore-belief is undeniably an event of the past (it is an event as much as our beliefs are events), it does have the necessity of the past, and that necessity does get transferred to Joe's future action. Thus, they conclude, theological fatalism is more severe than logical fatalism.

However, my version of logical fatalism[19] and my argument that expresses the most severe dilemma are not susceptible to this criticism. First of all, neither relies on the fact that the past is necessary. Logical fatalism simply suggests that D is now-true, not that it was true yesterday. The same is true of most severe dilemma; it does not rely on past truth. Further, neither argument suggests that a proposition's being true is an event that has a necessity that gets transferred to the future event that it entails. The arguments do not suggest that "the being now true of D" is an event, nor do they suggest that it has any kind of necessity, nor do they suggest that necessity is transferred over entailment. Thus, one can not object to these arguments by suggesting that the being true of a proposition is not an *event*.

To clarify, suppose one objects to my argument by pointing out that "the being true of a proposition is not really an *event* that has any kind of necessity." One defending my position can simply point out: "LCTT and truthmaking are silent about exactly what *the being true of a proposition* is. Make *the being true of a proposition* whatever you want or don't make it anything at all—if you think it is proper to say

[19] The actualizability fatalist argument articulated in section 5:3.1

that a proposition is true, there must be a truthmaker for that proposition, and that truthmaker must be included in one's ontology. If is it proper to say that there is prior truth about the future—which it must be if bivalence is true—the future must be included in one's ontology…regardless of whether "the being true of a proposition" is an event or not. Thus—given the fact of prior truth that is entailed by the logical law of bivalence—the future is now-actual, and (if PAP is true) Joe is not free."

So in short, since it is not the ontological status of past or present events (like the being true of a proposition) that makes Joe unable to act otherwise—regardless of whether or not you think "the being true of a proposition" is an event—unless you can propose a view that allows you to make sense of bivalence and prior truth without being committed to the now-actuality of the future, you will not avoid the fatalist conclusion.[20] Thus, neither the Actualizability Logical Fatalist Argument, nor the most severe dilemma, is susceptible to this objection.

### 5:6 – Classic Objections to Theological Fatalism

In the history of the debate on theological fatalism, a number of solutions have been proposed. It has been agreed by many philosophers that they have failed. However, looking at them and seeing if they can be modified to answer the problem set forth in this chapter, will be worth taking a look at.

#### 5:6.1 – Failed Solution #1: God Ignores the Future

[20] I have addressed the issue of the equal severity of the two problems elsewhere in my work "The Equal Severity of Theological and Logical Fatalism." I will not address it further, here, except to say that, if what I have argued so far is correct, clearly the two problems are equally severe. Depending on how you define severity, it may be that logical fatalism actually turns out to be the more severe of the two problems, but I certainly do not want to press this issue.

Some have admitted that infallible fore-belief and free will are incompatible, and attempted to avoid the fatalist conclusion by suggesting that God refrains from having infallible fore-belief in order to allow us to have free will.[21] In this way, they suggest, that God is still "omniscient" in that he could know everything; God simply "limits" himself in order for us to be free.

Ignoring the fact that omniscience is not defined in terms of ability but in terms of knowledge—*i.e.,* God is omniscient only if he does know everything, not if he could know everything but does not—the solution still fails. And it should be obvious why. Specifically put, God refraining from believing truths about the future will not prevent it from being the case that there are truths about the future. Thus God refraining from believing truths about the future will not prevent the future from being now-actual. Simply put, it is not God's having knowledge of the future that is responsible for Joe's non-freedom; it is the now-actuality of the future that is responsible for Joe's non-freedom; suggesting that God does not have beliefs about the future—metaphorically speaking, suggesting that God looks away from the future so that he does not know what it holds—does not keep the future from being now-actual. God's looking away does not make the future disappear thus, God's ignoring the future will not allow one to avoid the fatalist conclusion.

One might attempt to adapt this solution for the most severe dilemma; instead of saying that God doesn't have beliefs about the future, one might simply suggest that there are no truths about the future. Apart from giving up bivalence, this is not possible. I will discuss giving up bivalence next chapter.

[21] I can think of no philosopher who defends this position; this position is often taken by persons first introduced to the problem (*e.g.,* my Introduction to Philosophy students).

### 5:6.2 – Failed Solution #2: Boethian Timelessness

The classic Boethian solution to theological fatalism suggests that the problem can be solved by holding that God's beliefs do not occur in the past thus denying the second premise of the original theological argument. One doing this can maintain that God's beliefs do not have the necessity of the past, and thus maintain that such necessity does not get transferred to the future events those beliefs are about. To do this, Boetheus suggests that God is not "inside time" having beliefs at particular moments in time. Instead, he suggests, God is timeless—God is "outside the timeline—viewing the entire timeline "as a whole" and having timeless beliefs about it.

The failure of this solution should be clear. Whereas this view does allow one to deny the second premise—God's beliefs would not "technically" be past events—it does not allow one to avoid the fatalist conclusion. Despite the fact that "timeless beliefs/events" are clearly just as necessary and unchangeable as past events, and thus that necessity would still seem to transfer to the events the beliefs are about, this solution still fails. Suggesting that God sits "outside the timeline" commits one to the now-actuality of the timeline. The entirety of the timeline (including the future) must be included in one's ontology, if one believes that God is sitting outside of it and knowing it as a whole. With God outside of time, looking and knowing the future, there is no way to avoid being committed to the fact that the future is now-actual. Thus suggesting that God is timeless in this way buries one right in the middle of the fatalist problem, and does so in a way that leaves almost no wiggle room for a way out. Giving up bivalence to avoid such a commitment would not even be an option.

Parallel solutions to the most severe dilemma might take the form of suggesting that somehow propositions are timeless entities, or suggesting that "the being true of a proposition" somehow takes place outside of time. But since neither logical fatalism nor the most severe dilemma relies on propositions having positive ontological status, nor does it suggest that "the being true of a proposition" is an event at all, these solutions will be of no avail. And again, they would actually seem to make things worse. Moving things (propositions or events) outside the timeline seems clearly to commit one to the now-actuality of the entire time-line, and this clearly makes avoiding a commitment to a now-actual future more difficult. [22]

**5:6.3 – Failed Solution #3: Middle Knowledge**

Middle knowledge fails as a solution to theological fatalism, but essentially for no reason related to revelations developed in this work. Middle knowledge suggests that God "knows what every possible person would freely decide to do in every possible circumstance." Proponents of this view, suggest that this fact is a solution to theological fatalism.

But, as Zagzebski points out (1991, ch 5), it is unclear what premise in the theological fatalist argument proponents of this solution are denying—*i.e.,* it is unclear how proponents of this solution think that this fact goes about solving the problem. Granted, it is the case that if God knows what every possible person would

[22] The Boethian might object suggesting that God's timelessness commits one to the "eternal actuality" of the future, but not its now-actuality. But the Boethian that suggests this does not understand that to which "now-actuality" amounts. That which is "now-actual" is that which is now included in one's ontology. If one believes in God, God is included in one's ontology and God is now-actual (regardless of whether God is timeless or not). Likewise, if one believes that God is outside the timeline, that timeline is also included in one's ontology and thus is now-actual. In short, now-actuality is an "all or nothing deal." Something is either in one's ontology or it is not; one can't say something is eternally actual but not now-actual. Eternal actuality entails now-actuality (because it entails positive ontological status), and thus this move is not open to the Beoethian.

freely deicide to do in every possible circumstance, then it seems that I could freely decide to do what I am going to do, despite the fact that God infallibly believed what I was to do. But that it is possible for God to have this kind of knowledge at all is exactly what the theological argument draws into suspicion! In fact, one could actually just view the theological argument as an argument that shows that middle knowledge is impossible; if God's infallible fore-belief is incompatible with free will then God cannot know what every possible person would freely decide in every possible circumstance.

Thus the problem with solving the dilemma by suggesting that God does have middle knowledge should be clear. That such knowledge is even logically possible is exactly what the problem denies. Suggesting that God does have such knowledge in an attempt to solve the problem clearly begs the question.

I see no way of adapting this solution for the most severe dilemma.

**5:6.4 – Failed Solution #4: The Soft Fact/Hard Fact Distinction**

This solution tries to deny the second premise of the theological fatalist argument by denying that God's beliefs are truly "past events." This solution, if it works, would show that God's past beliefs do not have the "necessity of the past"—*i.e.,* it would show that they are not now-actual—and thus show that the future events they entail (like Joe's future decisions) do not have that necessity transferred to them. In this way, Joe's future decisions would not be now-actual and thus not be "inevitable." This solution defines soft facts as facts whose obtaining is dependent upon the occurrence of future facts (*i.e.,* the actuality of future states of affairs). It

says that God's beliefs about the future are clearly "soft facts," and thus do not have the necessity of the past.

This solution fails on two fronts.

First, it is quite clear that God's past beliefs about the future are real "hard" facts about the past. Numerous definitions of "soft facts" have been offered, each suggesting that God's beliefs about the future are "soft facts." But nearly all of these definitions have been rejected, based the fact that, by these definitions, other past facts—which are clearly hard—would also be counted as soft. To avoid this objection, there have been numerous attempts to revise the "soft fact" definition so that it only applies to God's beliefs—each definition becoming more complicated than the next. (Jonathan Kvanvig (1986) offers one that is over a page in length.) But as Zagzebski (1991) points out, the ability to construct such a definition does not imply that God's beliefs really are soft-facts. It seems clear that we would not deny that human beliefs about the future are "hard events," even if we could construct a definition that only applied to them. Very clearly, human beliefs, regardless of what they are about, are actual real "hard" events that occur and belong to the past (and to our ontology) after they have occurred. And it seems very clear that God's beliefs are no different; when God believes something it is an event that, once it has occurred, belongs to the past (and to our ontology). Yes God's past beliefs are different in one way: they are infallible; but it is unclear how that could change their ontological status and make them "not really written on the timeline." In short, this solution fails because, very clearly, God's past beliefs are real (hard) events of the past.

Secondly, even if someone could somehow identify God's past beliefs as "non-events" in virtue of the fact that they are dependent upon the occurrence of future events, this person would still not be able to avoid an ontological commitment to the future. To hold that God's past beliefs are "soft" because they are dependent upon the actuality of future states of affairs is to be committed to the actuality of those future states of affairs. And of course, since the future's now-actuality is the root of the problem, holding that God's beliefs are soft facts will not allow one to avoid the fatalist conclusion.

Of course adapting this solution to deal with the most severe dilemma would simply entail suggesting that—somehow—the "being true of a proposition" is a soft fact, and thus not an event in the past. But the failure of this move was made apparent in section 5:5. Additionally, the hard/soft fact distinction is called the Ockhamist solution, I will deal with Ockham's position in more detail below (section 5:7.1).

### 5:6.5 – Failed Solution #5: Backwards Causation

The following objection is very tempting to some in reply to theological fatalism.

> Although in normal circumstances backwards causation is impossible, this is not the case when it comes to the relationship between God's foreknowledge and human free action. The future human actions, of which God has infallible-beliefs, are the cause of those beliefs. Of course, the actions are not the cause of their infallibility; their infallibility is explained by God's perfection. But the beliefs themselves—one might say the beliefs' content—is caused by the future human actions/decisions about which God is having the beliefs. It is because (causally) Joe will decide at noon to do X that God infallibly believed (prior to Joe's decision) that he would do so, and thus Joe still decides freely when he does so.

For the sake of argument, in this section, I will grant the possibility of backwards causation,[23] and grant that Joe's future actions are the cause of God's past beliefs as described in the objection. I will here argue that this still will not allow one to avoid the fatalist conclusion.

First notice that, to the objection's credit, if the first causal version of theological fatalism (section 3:2) had been valid, this objection would have worked as a solution to that argument. Recall, according to that argument, the fact that God's past beliefs are not intentionally causable by Joe entails that Joe's future actions are not intentionally causable by Joe. If Joe is able to cause God's past beliefs, the second premise of that argument is denied, and the conclusion is avoided. But since that version of the argument is not valid, this is of little consequence.

However, this solution will not work against any other version of theological fatalism. Suppose that the second version of the causal theological fatalist argument (section 3:3) is valid. Recall, according to that argument, God believing differently than he did is not now-intentionally causable by Joe and thus *"Joe decides to do X" being false* is not now-intentionally causable by Joe; consequently, Joe is not free. Suppose Joe can now-cause the past belief that God already had. Would Joe having that ability entail that Joe can intentionally cause God to have a different belief than he did? No. All that has been granted is backwards causation, not an ability to change the past. And since God's past belief can't be changed, Joe not performing the action that God believed that he would perform is still not now-intentionally causable by Joe. Does the fact that Joe can intentionally cause his future action entail

[23] For more on backwards causation, see Dummett (1964), Mavrodes (1984), Vranas (2005), Brier (1973, 1974), Dwyer (1977), Forrest (1985), and Mackie (1966).

that he can intentionally cause "Joe decides to do X" to be false? No. Even though he will cause his future action, not causing that action is still outside of his power.

Granting backwards causation will not help in solving the actualizability theological argument of chapter 4 either.[24] Joe's future actions causing God's past beliefs does not entail that Joe has an ability such that, after its exercise, the truthmaker for ~D[25] will be actual. If anything it reinforces the fact that the future is now-actual and thus Joe has no such ability. Here is why: If God's past beliefs have already occurred—and thus are in the past and our ontology—we are forced to include their cause in our ontology as well. Neglecting to include their cause in our ontology would be to include, in our ontology, a non-explained and yet explainable entity[26] and thus violate the Principle of Sufficient Reason (PSR).[27] Thus, if Joe's future actions are the cause of God's past beliefs, we are forced to include Joe's future actions in our ontology, even before they occur. Thus, granting backwards causation doesn't solve the problem…it makes it worse! It forces us to include the future in our ontology since it plays a causal role in brining about now-actual pieces of the past.

The way this solution might be modified to deal with the severe dilemma is by suggesting that Joe's future actions cause past prior truths. Despite the problems with

[24] It is interesting to note that since "having no ability such that X" is essentially the same thing "not being able to cause X" we could treat the actualizability version of theological fatalism as another causal version. Such a version would differ from the causal versions of chapter 3 by being in terms of simple causation and not intentional causation. But such an argument would be the same argument, simply in different terms.

[25] Joe not deciding at noon tomorrow to do action X

[26] in this case God's past belief

[27] Of course, the Principle of Sufficient reason is not without exception. God, the universe, and certain quantum events are all candidates as exceptions to PSR. But the existence of exceptions to PSR does not entail that nothing has an explanation; I take it be uncontroversial to suggest that most events have an explanation; at the least explainable events do. And I take the content of God's past beliefs (especially under the theory that future states of affairs are the causes of those belief's content) to be explainable. Thus to not include in your ontology their explanation, I find unacceptable.

suggesting a causal relation between a person and a proposition,[28] this solution will still fail. Joe's future actions causing past truths will not give Joe the ability to refrain from causing those truths. In fact, just like before, this would seem to make things worse. If Joe's future actions are the cause of past truths—even if the being true of a proposition is not an event in our ontology—Joe's future actions would have to be in our ontology to account for those truths.

I conclude that none of the "classic" solutions to theological or logical fatalism are successful in solving the incompatibility of bivalence, PAP, and free will as I have articulated it.

### 5:7 – Two Good Objections (That Ultimately Fail)

There are two good objections to my line of reasoning; these objections are not based on any old solutions but directly address my argument. These objections ultimately fail, but they must be dealt with. The two objections are related. I will state them both in one continuous argument, and then respond to each individually.

One might object (I will number the two responses):

> You have argued that the positive ontological status of—the "being actual of"—the logically possible future that is the actual future, implies that no other logically possible future is now-actualizable. And you are right; given that "now-actualizable" is defined as that which does not stand in contradiction with what is now-actual, no other logically possible future (besides the one that will occur) is now-actualizable. (1) However, we already thought that there was an actual future; this is the common way we view the nature of the timeline. And this should not be surprising, given that (as you

[28] Perhaps one could modify the notion to avoid this objection. Perhaps Joe could be said to be "responsible for" prior truths.

have pointed out) such a view is entailed by bivalence. But we never thought this view posed a threat to free will in the first place – and rightly so! And the reason we thought this was because we thought that "not standing in contradiction with what is now-actual" (being now-actualizable) is not required in order for some action/decision to be "now-possible" in the way required for free will by PAP. In other words, we do not think that "actualizability" is the kind of "possibility" that is required for free will; it is not the definition of "possible*" that we should plug into PAP* to get a true statement of a necessary condition for free will. If it were, PAP would suggest that free will requires the ability to make true that which is false, which clearly is not the case. And it does not because such a modality identifies that which is true with that which is possible—*i.e.,* it suggests that only the events of the actual timeline could be said to be "now-possible*"—but clearly a definition of possibility that suggests that the only thing that is possible is that which is true (actual) is far too restrictive. Such a modality is not really even a modality; its definition of "possible" is just another expression for "true." (2) The way the actual future must be (and is) open, in order for the possibility of free will—and the way that it is different than the actual past—is by being "contingently actual." The correct way to view the time line is this: There is a multiplicity of logically possible pasts and futures. It is not logically necessary that the logically possible past that is the actual past is the actual past, but now that it is actual, it is *accidentally necessary* that it is actual. (It is also accidentally necessary that all other logically possible pasts are non-actual.) However, the logically possible future that is the actual future, although actual, is *accidentally contingent.* (The same is true of non-actual futures as well: they are accidentally contingent even though non-actual.) In short, there is an actual past and an actual future, but their modal status differs: the actual past is accidentally necessary and the actual future is accidentally contingent. And the actual future (and thus the future actions it contains) being accidentally contingent is all that is required for free will.

I shall deal with each objection in turn.

### 5:7.1 – Dealing with Objection (1)

Objection (1), as it is stated above, is easy to read and sounds convincing; but as it is stated above, it is "backwards." It begins with its conclusion, and ends with its central premise. Objection (1) can be reordered, restated, and summarized as follows:

> With the modality of actualizability, you have identified that which is possible* with that which is true. Such a modality is far too restrictive. When you plug it into PAP*, you have demanded that free will requires the ability to make true that which is false; but this makes free will demand too much.[29] It is for this reason that prior truth and the now-actuality of its truthmakers (the future)—something that we already accept anyway—does not stand in contradiction with free will."

The flaw at the heart of this argument is the assumption that the doctrine of a now-actual future is universally accepted. Let me first show why this assumption is false, and then show why the falsity of this assumption invalidates this objection.

Clearly, given the fact that there are presentists and pastists in the world, it is not the case that everyone views the future as now-actual. There is also debate on this issue in physics, which we will briefly discuss in chapter 6 (section 6:1.3) But I suggest that "the future is now-actual" is not even the common view. Girle (2000), in his chapter on temporal logics, certainly does not profess that there is one common view regarding the "nature" or "shape" of the timeline. He puts forth "CR," a formal system for dealing with temporal modality and states that there are a number of ways one might suggest that the time line is structured that are all compatible with CR. Some contain an actual future timeline, others do not. Among his suggestions are the following:

[29] *i.e.,* that is not the correct definition of free will

…[an] intuitive picture of past, present and future, allowed by CR, is [the following figure]. For example, some people see the past as a fixed, single line, or sequence, of instances up to the present. The future is an amorphous blob.

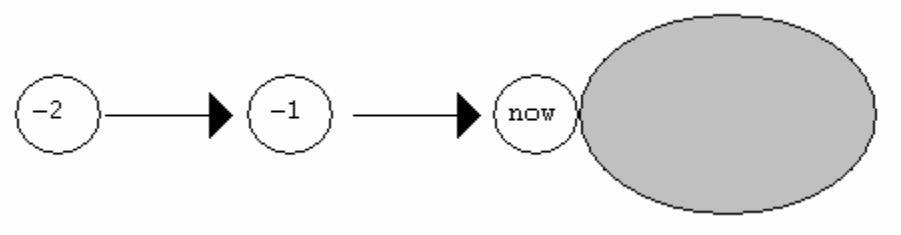



Figure 5.1

In [the following figure] the future is not a blob but a set of branching possibilities. This is also allowed by CR.

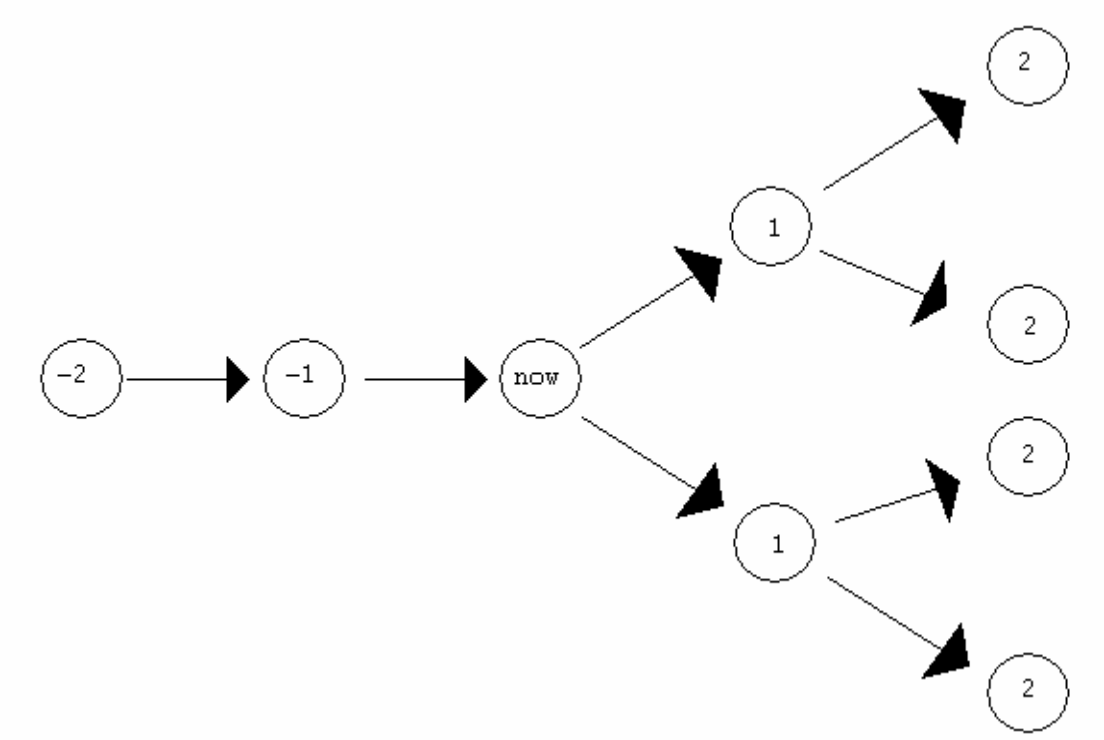



Figure 5.2

There is yet another picture allowed by CR. The past and the future are a single line as in [the following figure]. This picture is compatible with CR.




Figure 5.3

(p. 126 – 127)

Clearly figure 5.1 captures a view in which the future is not already written and not now-actual. I think it is also clear that, in figure 5.2, all futures have an equal

modal status; they are all equally possible and no one of them is now-actual. Only figure 5.3 depicts a future that is "now-actual." These are all set forth by Girle to be intuitive pictures, so according to Girle, no one of these is more acceptable, or more common, than any other—there is no *common way* we all view the nature of the timeline.

Further, I suggest that viewing the future as non-actual is exactly what we usually do when we assume that we are freely making a decision. As van Inwagen helped me point out last chapter: what you assume when you believe yourself to be freely choosing is that the future is not yet written; you believe that your decision will determine what action *will be* written on the timeline; your decision will not simply be bringing about something that is *already* written on the timeline. Thus, I argue, viewing the future as now-actual is not the common way of viewing the future.

The fact that the now-actuality of the future is not universally accepted, and in fact not even common, helps us identify what is wrong with objection (1). Objection (1) claims that

> "With the modality of actualizability, [I] have identified that which is possible* with that which is true."

However, this is clearly not the case. If the future is not now-actual, there are no truths about the future[30] and yet there are multiple futures that are all now-possible* (now-actualizable). Clearly, what is possible is not identified with what is true. Of course, if the future were now-actual, only that which is true would be possible*, but this would not be because I have identified what is possible* with what is true. It

[30] With the exception of some truths that are determined by present states of affairs.

would simply be because future events having already been written on the time line makes the world such that nothing else but those events could occur.

This allows us to see why objection (1)'s next claim is false. Recall it suggested that

> "…When you plug [the modality of actualizability] into PAP*, you have demanded that free will requires the ability to make true that which is false; but this makes free will demand too much …

But notice that I have done nothing of the kind. I have demanded that free will requires the ability to not act as you will. If the future is not now-actual, it is neither true nor false that one will perform any certain action—because there are no truthmakers for propositions about future human actions—and thus acting different than one does would not require one to make true that which is false. Of course, if the future is now-actual, your not acting in accordance with the content of the actual future would be to make something false that is now-true. But this does not demand too much for free-will; being able to not act as you will is exactly what is required for free will by PAP.

In summary, contrary to the suggestion of objection (1), the modality of actualizability does not entail that only the events of the actual timeline could be said to be "now-possible*" and thus it does not identify truth with possibility*. If the future is not now-actual, multiple futures are now-actualizable, even though they are not now-written on the actual timeline and there are no truths about what will occur.

Thus, not standing in contradiction with what is now-actual (being now-actualizable) is exactly what is required if actions/decisions are to be "now-possible" in the way required for free-will by PAP*. In other words, the modality of actualizable is a definition of "possible*" that makes PAP* true.

### 5:7.1 – Dealing with Objection 2

The second objection tries to articulate a way in which the future could be now-actual, but not stand in contradiction with free-will. The suggestion is that, unlike the actual past which is accidentally necessary, the actual future (along with all other futures) is accidentally contingent. This is essentially Ockham's temporal view; more accurately this is one way of interpreting Ockham's view. This view of Ockham's is expressed as he deals with a fatalist argument that is very similar to the one that is introduced in this chapter. To fully understand Ockham's answer to it, it will be necessary to articulate the context and content of Ockham's temporal views. Once we have done so it will be clear why Ockham's view, and objection (2), fail to solve the logical argument and the most severe dilemma.

#### 5:7.1.1 – Understanding Ockham

Ockham is dealing with logical fatalist arguments raised by Aristotle. Aristotle raises two fatalistic arguments. Both rely on bivalence, and to solve each Aristotle suggests a rejection of bivalence. Specifically he suggests rejecting the notion that singular future tensed propositions regarding future human action have a determinate truth value. To fully understand Ockham's answer to Aristotle, it will be necessary to examine Aristotle's arguments.

##### 5:7.1.1.1 – Aristotle's assumptions

His arguments rely on a number of assumptions, as identified by Adams (1983). First, Aristotle assumes a correspondence theory of truth:

> [A] A proposition's truth or falsity is due, accordingly, to whether or not that proposition corresponds or fails to correspond with determinate reality. (Adams p. 6)

As Adams later puts it:

> [A'] …propositions are determinately true or determinately false as they correspond or fail to correspond with what is determinately actual. (p. 10)

As I understand it, Adams suggests no difference between these definitions, thus "X is true" IFF "X is determinately true" and thus [A] is equivalent to [A']. Ascribing such a view to Aristotle was the standard medieval interpretation according to Adams (p. 5) and still is so (Newhard (2005) p. 1)

Further, it is assumed by Aristotle that,

> [B] A proposition has "determinate truth" when there is "no potency in things" for its being false.

For Aristotle, and Ockham, there is *no potency in things* for some proposition P being true, IFF its truth stands in contradiction with some part of the actual present or past. When some event, action, or state of affairs is a part of the present or the past, there is

no longer any potency in things for the opposite of that event, action, or state of affairs. When there is no potency in things for something's opposite, it is said that thing is necessary. Modern philosophers call this "accidental necessity." This is the same kind of necessity had by the past.[31]

With these assumptions in place, Aristotle presents two arguments for the rejection of bivalence.

#### 5:7.1.1.2 – Aristotle's First Logical Fatalist Argument[32]

The first argument is similar to the logical argument expressed in section 5:5—the logical argument that relies on fact that the past is necessary. However, Aristotle's argument differs slightly. Let me quote Ockham summarizing Aristotle's argument:

> …if this is now white and if truth is determinate in [propositions] about the future, then 'this will be white' was true earlier. Indeed, 'this will be white' was always true. But if it was always going to be, then it could not not be going to be. Therefore it could not not happen; therefore it was impossible that it not happen; therefore it was necessary that it happen (and so on with regard to other [singular propositions about the future]). And consequently all things happen of necessity, and nothing happens by chance or fortuitously. (p. 99)

As Adam's summarizes it:

> If ' "X will be white" was true' is necessary about the past, then something actual in the past necessitated x's being white now, so that there was no potency in the way things were then for x's not being white now. It follows that x did not come to be white contingently but

[31] The state of affairs of the Empire State Building being gray determines the truth value of the proposition "The Empire State Building is gray." Determinate truth value is temporally sensitive, and the determinate truth value of some propositions can change, depending on what the proposition is. For example, "The Empire State Building is gray" is now determinately true, however if the Empire State Building is colored white on Jan 1st, 2068, on that date the proposition will change from being determinately true to determinately false. However, some propositions, especially ones that are time indexed, cannot change in determinate truth value. The proposition "The Empire State Building was gray on Jan 1, 2001" has been determinately true since that date, and will always continue to be so. In short, propositions about the past and the present are determinately true, and will continue to retain that same determinate truth value. Ockham and Aristotle are mainly concerned about time indexed propositions.

[32] In actually, the following is the second argument here presented. I present it here first, but the other argument more closely parallels the logical argument of this chapter, and I wish to mention it last.

> necessarily. Thus, if every singular proposition about the future is determinately true or determinately false, everything that happens happens necessarily.

As I summarize Aristotle's argument: If it is now true that the future tensed proposition "X will be white at Ty" had determinate truth yesterday, then yesterday there was something actual in the present or past (and thus actual in the past now) that determined its being true. Thus, there was not then and is not now any potency in things for X not being white at Ty, and thus X will be (or already came to be) white at Ty necessarily. The same argument can be made for all future tensed propositions, thus if there is prior truth, everything happens necessarily.

Aristotle assumes that everything does not happen necessarily and uses this argument as a reductio to conclude that bivalence must be rejected. Aristotle, in turn, favors the view that propositions about the future do not have a determinate truth value.

#### 5:7.1.1.3 – Aristotle's Second Logical Fatalist Argument

Aristotle's second argument is similar but does not rely on "propositions being true of the past" at all. Let us look at Ockham's summarization of Aristotle's second argument:

> He puts forward [the argument], setting our the conclusion first saying that as regards singular [propositions] about the future it is not as it is regarding those about the past and about the present, in that it is not always the case that one part of a contradiction [involving singular propositions about the future] is true and the other false as it is regarding those about the past and about the present. And he proves this by arguing to an impossibility as follows. If every affirmative and [every] negative proposition is either determinately true or determinately false, then if one says 'this will be' and another says 'this will not be,' one of them must be saying what is determinately true (if any and every proposition is either detrimentally true or determinately false). For example, if someone says 'this will be white' and another says 'this will not be white,' it must be that one is saying what is determinately true and the other is speaking determinately falsely. But this is false, since in that case nothing would happen by chance or fortuitously but all things would happen of necessity. This last consequence is clear, since what happens fortuitously is no more determined to one part that [sic] to the other—*i.e.,* no more determined to being than to not being. Therefore if it is determined that

> this will be or that it will not be, it happens not fortuitously but of necessity. (Appendix 2; Adams p. 98)

Here, Aristotle argues to a rejection of bivalence by observing that, if bivalence is true, then everything happens of necessity and (Aristotle assumes) it is not the case that everything happens of necessity. Let me reorder the quote above to make Aristotle's argument for "if bivalence is true then everything happens of necessity" clearer.

1) What happens fortuitously is no more determined to one part [of a contradiction] than to the other—*i.e.,* no more determined to being than to not being. (assumption)
2) If it is determined that this will be or that it will not be, it happens not fortuitously but of necessity. (from 1)
3) If every affirmative and [every] negative proposition is either determinately true or determinately false, then if one says 'this will be' and another says 'this will not be,' one of them must be saying what is determinately true. (assumption)
4) Thus, if every affirmative and [every] negative proposition is either determinately true or determinately false, nothing would happen by chance or fortuitously but all things would happen of necessity. (from 2 & 3)

Notice that this argument does not rely on the necessity of the past at all; Aristotle simply deduces the fact that *bivalence* entails that every proposition having determinate truth entails that everything would happen of necessity. Notice also that, if we apply Aristotle's above assumptions to this argument, we get the following:

[which is somewhat similar to the actualizability logical fatalist argument (of section 5:3.1).]

1) A proposition that expresses the occurrence of an event that happens contingently cannot have a determinate truth value; *i.e.,* no part of the past or present can determine its truth; there must be a potency in things for the event to not occur.
2) Thus if any proposition that expresses the occurrence of an event has a truth value that is determined by the past or the present, there is no potency in things for that event to not occur and thus the occurrence of that event is necessary.
3) If every proposition has a determinate truth value, then every proposition that expresses the occurrence of an event has a truth value that is determined by some part of the past or the present.
4) Therefore, if every proposition has a determinate truth value then the occurrence of every event is necessary.

In short, since bivalence suggests that every proposition must have a determinate truth value, bivalence demands that, for every proposition, either the past or the present now contains something to give that proposition a determinate truth value. Consequently, bivalence entails that there is now no potency in things for the world to turn out any other way than the way that it will. Thus bivalence entails that every event that occurs, occurs necessarily.

(This argument is similar to the actualizability logical fatalist argument (of section 5:3.1) in that it points out, without relying on the necessity of the past or the fact that the past contains truths about the future, that bivalence entails ontological commitments that are incompatible with free will. The difference of course is that, in

Aristotle's case, the ontological commitment is an ontological commitment to things in the present and past, instead of a commitment to the now-actuality of the future.)

**5:7.1.1.4 – Ockham's Solution**

According to Adams, Ockham himself grants Aristotle's theory of truth—*i.e.,* [A] (Adams p. 10)—and recognizes the pressing need to reject bivalence. And Ockham would have rejected it, if not for the theological complications that arise as a result. If future tensed propositions have no determinate truth value, and knowledge requires determinate truth, clearly determinate knowledge of the future is impossible, even for God. Consequently, a rejection of bivalence would require a rejection of the classic doctrine of God's omniscience (which of course includes God's foreknowledge).

Unable to reject the doctrine of divine infallible foreknowledge Ockham develops an alternate theory, which saves bivalence and thus divine foreknowledge but still allows for human free will.

To save bivalence what Ockham does is reject [B] for,

> [C] A proposition has "determinate truth" IFF at some time or other there is "no potency in things" for its being false.

[C], according to Adams, "allows a thing future relative [to now] to be determinate [now], even if nothing real or actual in the past or present relative to [now] necessitates its future existence, provided that something that exists at some time or other settles its future existence….[this] makes being determinate only trivially time

relative, because the fact that something…is actual at some time or other suffices...to make it determinate at any and every time." (Adams p. 10) Thus, propositions about the future can and do have determinate truth, and bivalence and God's foreknowledge, is saved.

To save human free will, Ockham observes that, in regard to determinately true propositions about future human action, there is still potency in things for them to be false. They have determinate truth in virtue of the fact that there will be (at some future time) no potency for them being false; but there is now nothing present nor past that determines their truth. Thus, according to Ockham, these determinately true propositions are contingent; thus they still could be, and could always have been, false and human free will is preserved.

The objection to this last line of reasoning is obvious, and recognized by Ockham himself: Infallible foreknowledge of that which is contingent in this way—of that which is such that there is still a potency in things for it not to occur—is impossible. If there is such a potency, it is, by definition, still possible for it not to occur, and if such a possibility exists, knowing infallibly (*i.e.,* "for sure") that it will occur is impossible.

As Ockham himself observes,

> "…when something is determined contingently, so that it is still possible that it is not determined and it is possible that it was never determined, then one cannot have certain and infallible cognition based on such a determination. But the determination of the divine will in respect of future contingents is such a determination…Therefore God cannot have certain cognition of future contingents based on such a determination. (Assumption 6, Adams p 49.)

When faced with this objection, Ockham admits that, philosophically, there is no answer.

> "…I say that it is to be held indubitably that God knows all future contingents certainly and evidently. But to explain this clearly and to describe the way in which He knows all future contingents is impossible for any intellect in this [present] condition. And I maintain that the Philosopher would say that God does not know some future contingents evidently and certainly and for the following reason. What is not true in itself cannot be known at a time at which it is not true in itself. But a future contingent absolutely dependent of a free capacity is not true in itself, since no reason can be given in accord with [that description of ] it why the one part is true rather than the others. And so either both parts are true or neither [is true], and it is not possible that both parts are true, therefore neither is true. Consequently neither is known….This argument notwithstanding, it must nevertheless be maintained that God has evident cognition of all future contingents. But I do not know how to describe the way [in which He has it.]…This conclusion, although it cannot be proved *a priori* by means of the natural reason available to use, nevertheless can be proved by means of the authorities of the Bible and the Saints, which are sufficiently well known. (Appendix I, Adams p 89 – 90).

Ockham nicely summarizes his answer to the same objection in Appendix II when he simply asserts, "..it must be said…in accordance with the truth and the theologians that God determinately knows [future contingents]…But how He does so must be explained in theology." (Appendix II, Adams p. 106.)

#### 5:7.1.2 – The Problems with Ockham's Solution

The problems with Ockham's solution are many-fold.

First, Ockham's answer to the problem of infallible knowledge of contingents—"how this can be true is a mystery, but it must be true…let the theologians work out the details"—is clearly unsatisfactory. Although a simple appeal to the *truths of the faith* may have been viewed as satisfactory in the Middle Ages, it clearly is not satisfactory today. An explanation of how determinate knowledge of that which is not yet determined is possible must be answered if Ockham's answer is going to be worth anything. In an absence of such an explanation, Ockham's attempt to rescue foreknowledge must be viewed as a failure.[33]

[33] Ockham does say, at one point, that God has "intuitive cognition" of what is true. But, as Adams points out in her commentary, clearly this is an unsatisfactory answer to this problem.

Secondly however, there is an even deeper (but related) problem with Ockham's response: it seems to be completely incoherent: "A proposition that could be false or could be true" is the very definition of "indeterminate proposition"; but this also seems to be the definition of "contingent proposition." Thus the very notion of determinate contingent truth seems to be incoherent; it seems to be the same as suggesting that there are non-indeterminate indeterminate truths. Worse yet, Ockham seems to have recognized this fact, and ignored it. This incoherency seems to be exactly what Ockham recognized when he realized that "infallible knowledge of a contingency" is problematic. The reason that infallible knowledge of a contingency is problematic is because infallible knowledge requires the truth value of the proposition that is known to be determined—the truth value of an infallibly known proposition cannot be yet undecided (*i.e.,* undetermined)—and yet contingency entails that it is undecided. Thus, infallible knowledge of contingencies is incoherent because the notion of determined contingent truth is incoherent. And Ockham's inability to deal with the impossibility of infallible knowledge of a contingency seems to be direct evidence that Ockham had no way to explain how determinate contingent truth is coherent.

In the interest of charity however, I will assume that there is a way of understanding Ockham that is not so straightforwardly logically contradictory. There are two ways of interpreting Ockham's notion of determined contingent truth. Let us look at them both, to see if sense can be made of them.

According to Ockham, something is determinate if there (was/is/)<u>will be</u> something actual that determines its truth. However, something is contingent if there

is nothing actual that determines its truth. By these definitions, to maintain that propositions about the future are contingent and yet determinate, Ockham has a couple of options:

**5:7.1.2.1 - Interpretation of Ockham #1**

Ockham could hold the following view:

[View 1]: Only the past and the present are now-actual, and thus only propositions about the past and the present have necessary (non-contingent) truth.[34] Propositions about the future are contingent because there is nothing now-actual that determines their truth; and yet, since there will be some time at which something actual will determine their truth value (since the future will become actual), their truth value is determinate.

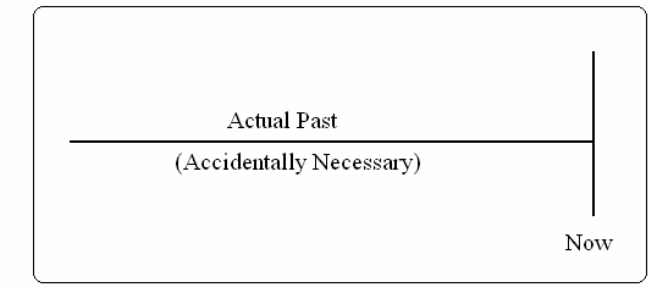
The Ontology afforded to View 1, and its explanation, is captured pictorially here:

[34] Of course, they also have determinate truth.

[D]: "Joe will decide at noon tomorrow to do X."

Nothing that is actual determines D's truth, thus D is contingent.

There will be something actual that determines D's truth, thus D is determinate.




Ontology

The problem with View 1 should be clear. It is a pastist view and is subject to the same objections that pastism was subject to before. Ockham himself accepts Aristotle's correspondence theory of truth. As it is stated above, [A'] propositions are determinately true or determinately false as they correspond or fail to correspond with what is determinately actual. But clearly, in the above figure, the future is not determinately actual. Thus, suggesting that D—a proposition about the future—is determinately true is contrary to [A']. Thus, Veiw 1 is incompatible with Ockham's own views on truth.

Even if one thinks there is a difference between "truth" and "determinate truth" and thus that there is a difference between [A'] and [A], and instead of accepting [A'], Ockham accepts [A]—*i.e.,* that a proposition's truth or falsity is due, accordingly, to whether or not that proposition corresponds or fails to correspond with determinate reality—Ockham will still have a problem. If one thinks that Ockham accepts [A] instead of [A'], one would think that Ockham would respond to

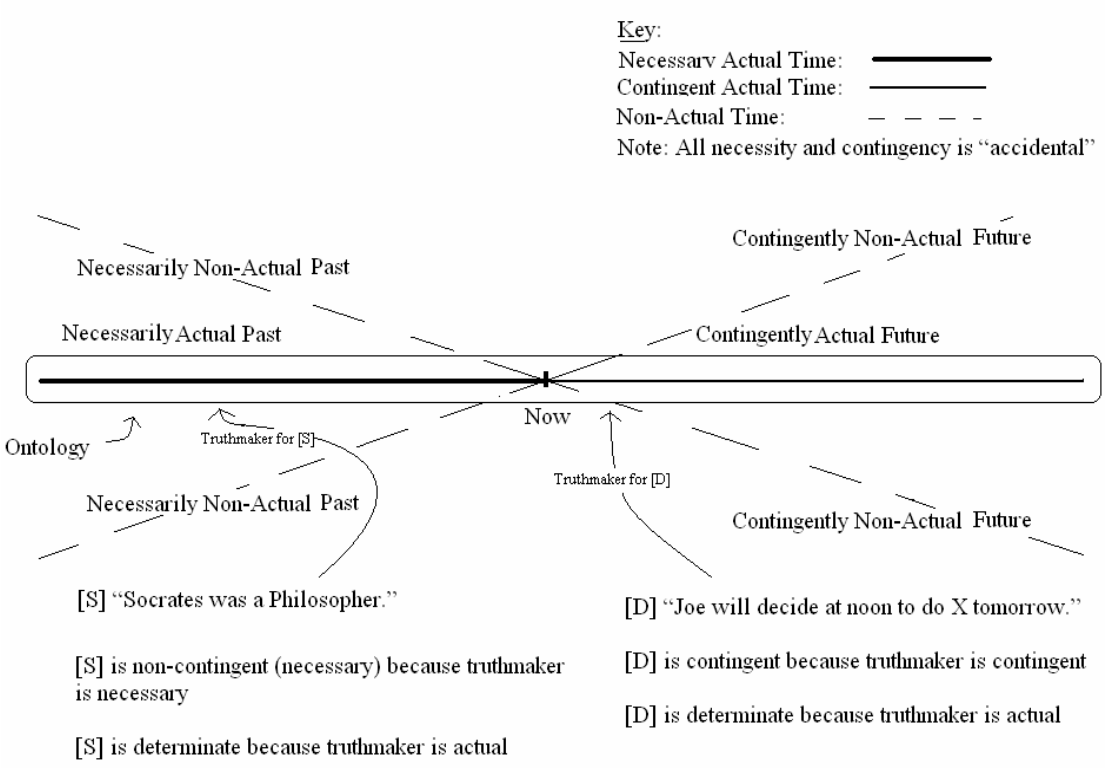
the above objection in the following way: D need not correspond to determine reality in order for it to have determinate truth; it need only be true that "There will be something actual that determines D's truth" for D to be determinately true. On this view, the truth of "There will be something actual that determines D's truth" is the explanation for the truth of D. However, [A] demands that the proposition just stated must correspond with determinate reality if it is to be true. But, just like the other pastist ontologies, this ontology clearly comes up short; there is nothing determinate with which this proposition corresponds—it has no truthmaker—and so D's determinate truth is ultimately unexplained. View 1, it seems, is unsatisfactory no matter how you interpret the difference between "truth" and "determinate truth."

**5:7.1.2.2 – Interpretation of Ockham #2**

An alternative for Ockham would be the following:

> [View 2]: The past, the present, and the future are all now-actual; thus propositions about the past, the present, and the future have determinate truth. (Since the past, present and future all have positive ontological status, they can all serve as truthmakers, and thus can be responsible for determinate truth. This is what it means to say that, for all propositions, there was/is/will be something that determines their truth.) However, the modal status of the past and present is different than the modal status of the future. The past and the present are necessarily actual, but the future is contingently actual. Thus, propositions about the future are contingent, since their truthmakers are contingently actual.

The Ontology afforded to view 2, and its explanation, is captured pictorially here




This is the view that I believe most understand Ockham to hold. However, this view is quite problematic. To understand why it is problematic, let us look at exactly what it means to suggest that the future is contingent and yet responsible for determinate truth; we must ask, what could it mean to suggest that a proposition is determined contingently?

To answer this question, let us look at Ockham's own words: "…when something is determined contingently…it is still possible that it is not determined and it is possible that it was never determined…: (Assumption 6, Adams p. 49.). So we must now ask, what is it for a proposition to be such that "it is possible that it is not determined" and what is it for a proposition to be such that "it is possible that it was never determined." To understand this, let us look at what it would be like for something to be determined, and also for that same thing to not be determined.

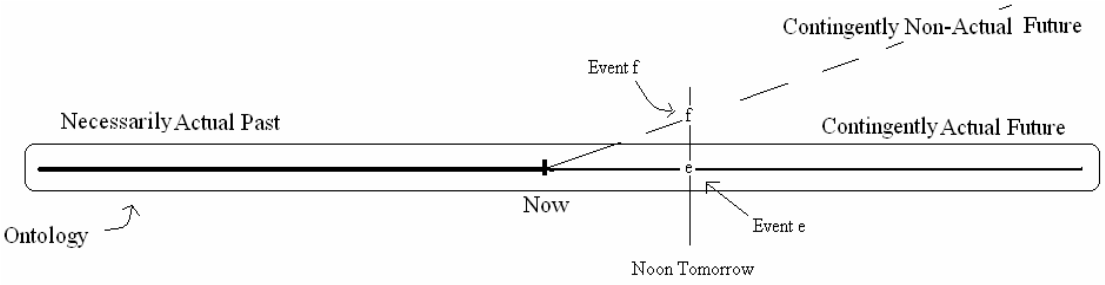
Let us say that *event e* will occur at noon tomorrow and thus the proposition

[E] "*Event e* will occur tomorrow at noon"

is now determinately true. Let us suppose that *event f* is some event that is logically contrary to *event e* such that it is logically impossible for *event f* and *event e* to occur simultaneously. Thus,

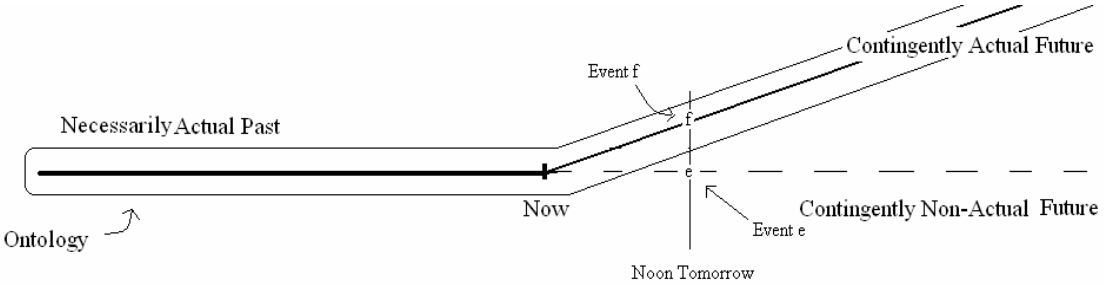
[F] "*Event f* will occur tomorrow at noon"

is determinately false. We could represent the ontological picture afforded by the determinate truth of [E] and the determinate falsity of [F] thusly:




Here, *event e* is written upon the contingently actual future timeline, and *event f* is "on" the contingently non-actual future timeline,[35] and *event e's* actuality is responsible for the determinate truth value of [E].

Now, what ontological picture would be afforded by the determinate falsity of [E] and the determinate truth of [F]? The answer is clear:

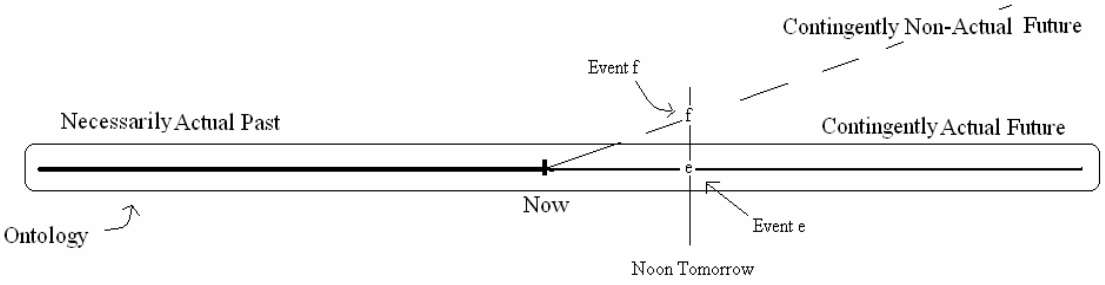



[35] Although this is slightly inaccurate since something cannot be on that which is non-actual.

So, if [F] were determinately true, clearly a future different than the one that contains *event e* would be actual, and the future which contains *event e* would not be actual.

Clearly then, the way to understand "it is still possible that [E] is not determinately true" is "it is still possible that the future that contains *event e* is non-actual." Additionally, the way to understand "it is possible that [E] was never determinately true" is "it is possible that the future that contains *event e* never was actual." Thus, if [E] is determinately contingent, then "it is still possible that the future that contains *event e* is non-actual and it is possible that the future that contains *event e* never was actual." Thus we have successfully captured "contingency."

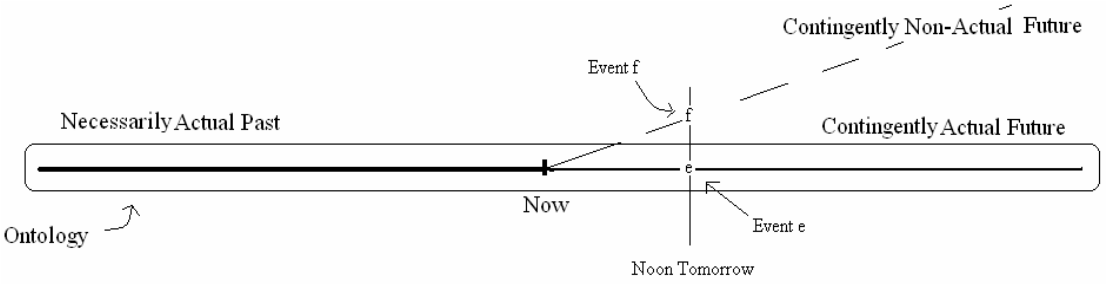
But recall that if [E] is determinately true (whether contingently or necessarily), there is now something actual which gives it its determinate truth value; in this case, it is the now-actuality of the future that contains *event e*. Thus, when Ockham suggests that [E] is determinately true, he is committed to viewing the future that contains *event e* as actual. He is committed to this ontology:



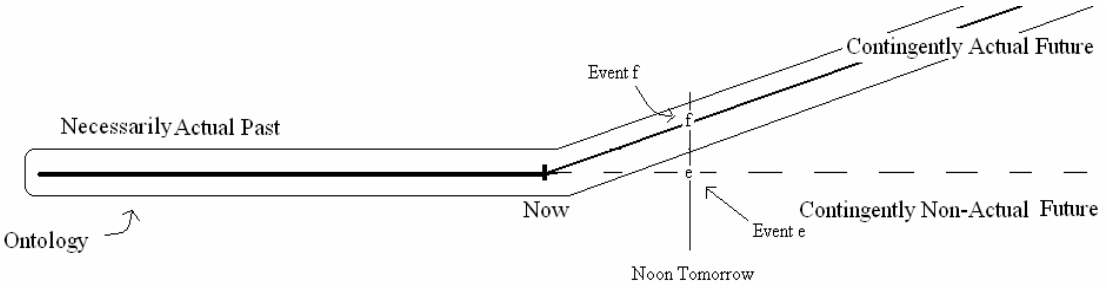

Now we can put it all together. If Ockham was to say that [E] is *contingently determined*, he would be saying that [E] is both determined and contingent, and thus be saying: "The future that contains *event e* ("*the e future*") is actual[36] and it is still

[36] since [E] is determinate.

possible that *the e future* is non-actual and it is possible that *the e future* never was actual.[37]" In other words, when Ockham says that [E] is contingently determined, he is saying that this <u>is</u> the way things are…:




…but it is still possible that things are like this:




But this last phrase is ambiguous; in what way is it still possible that things are like the latter, even though they *are* like the former? What does

> [F] "Things are like this: *the e future is actual*; but it still possible that things are like this: *the e future is not actual.*

mean? There are a few possible things that this could mean; but, I shall argue, none of these meanings are satisfactory.

First, Ockham could mean: "In the same way that a white cup that is white right now, could have been red right now, *the e future* that is now-actual could have been now non-actual." However, the way in which it is possible for the now white cup to now be red is merely logical; there is a logically possible world in which the

[37] since [E] is also contingent.

now white cup is now red. However, this sense of possibility will not get Ockham the results he wants. Alternate pasts are also logically possible, and thus, if this is what Ockham means by saying that *the non-e future* is still possible, it would also be true to say that alternate pasts are still possible. Clearly, this interpretation of [F] will not do.

[F] could mean: "*The e future* is actual but for all we know, *the non-e future* is actual." However, this clearly is unsatisfactory as well. This merely indicates an epistemic difference between the past and the future. It entails that we are ignorant of which future is actual; it does not indicate that any other future is actually possible.

[F] could mean: "*The e future* is now-actual, but it is still possible that at some time before e occurs, *the e future* that is now-actual will cease to be actual, and some other future (that is not now-actual) will become actual and thus take its place." However, this is very clearly the same as suggesting that the future is changeable, and is subject to the same objections I presented against such a position in chapter 2.

Keeping more in line with the actual words of Ockham, [F] could mean: "*The e future* is now-actual, but it is still possible that at some time before e occurs, *the e future* that is now-actual will cease to be actual—and in fact will cease to have ever been actual—and it will then become the case that some other future (that is not now-actual) will be actual and always will have been actual." However, this move seems very problematic. This seems to just be another way of saying that the future is changeable.

To suggest that it is not another way of suggesting that the future is changeable, one might claim: *If some other future other than the one that is actual*

*becomes actual, it will have always been actual, and thus no "change" has actually taken place.* But there are two things wrong with this: First, such a notion is completely incoherent. If *the e future* is now-actual, it cannot be that, at a later time, it never was. Second, even if this notion was coherent and sense could be made of *the e future* being now-actual but later never having been actual, the same thing would be true of the past. If the future that is now-actual could later "have never been actual" then the past that is now-actual could also later "have never been actual." Thus multiple futures and pasts are *possible* on this meaning of [F], and given the fact that Ockham assumed that the past and future differed according to the kind of necessity he had in mind, this cannot be the correct interpretation of Ockham.

Lastly, [F] could mean: "The actual future has a modal property that the past lacks. This does not mean that the future is changeable—there are clearly problems with that—the future that is actual is the future that will occur. It is simply the case that the actual future has the property of being contingent, whereas the past does not." However, if [F] means this, [F] is meaningless. As Peirce or James might tell us, a non-effectual difference (*i.e.,* a difference that makes no difference) is no difference at all.[38] You can say you are ill, but if your illness has no symptoms—if, when you supposedly "have" this illness, there is no way in which you are different from how you are when you do not have this illness—then you have no illness. In the same way, you can <u>say</u> that the actual future has the property of "contingency," but if the

[38] As James (1906) tells us, "If no practical difference whatever can be traced, then the alternatives mean practically the same thing, and all dispute is idle." (p. 2) Peirce (1878) makes the same point as he "complains" about the Catholic doctrine of Transubstantiation. The Catholics claim that, during communion, the wine and bread become the blood and body of Christ, although they maintain that all the same tenantable properties of wine and bread remain, and no new ones are added. Peirce argues that such a doctrine is non-sense; if there is no property change, then there is no change at all; if the wine and bread have the same properties as they did when they were "still" wine and bread, then they are still wine and bread. A difference, that makes no difference, is no difference at all.

future you are speaking of does not differ at all from one that is necessary, then that future you speak of does not have the property of contingency.

And this is exactly what the above meaning of [F] suggests. We could restate it: "The future that is actual is the one that will occur—in fact, if it did not, then what future is actual will have changed and that is impossible—but, nevertheless, the future that will occur is contingent." But if it is the case that it will occur and in fact its non-occurrence cannot occur (because it is not changeable), then it "behaves" just as a necessary future would; there is no difference between it and a necessary future. Possessing this "contingency property" makes no difference, and thus is no difference at all.

What it comes down to is this: If you think the future is actual, then you are committed to its occurrence, and in fact you are committed to thinking that its non-occurrence is impossible because its non-occurrence will entail that the future is changeable. Thus, if you think there is an actual future, you are committed to thinking that it is now-necessary that it occur. You cannot maintain that there is an actual future, but that its occurrence is contingent.

So, I conclude, however we understand View 2, if Ockham had it in mind—no matter how you interpret him—he had no successful answer to Aristotle's dilemma.

#### 5:7.1.3 – What This Teaches Us (Answering Objection #2)

Recall the whole reason that I brought up Ockham. Objection 2 (section 5:7) suggested that

> "The way the actual future must be (and is) open, in order for the possibility of free will—and the way that it is different from the actual past—is by being

> "contingently actual"… In short, there is an actual past and an actual future, but their modal status differs: the actual past is accidentally necessary and the actual future is accidentally contingent."

There may be the same ambiguity present here (as was present in Ockham), but no matter how you understand this, it cannot solve the problem. If the future is now-actual, it will occur necessarily, and is not contingent.

### 5:8 – Conclusion

I have considered numerous ways to avoid the fatalist conclusion, and all have failed. Bivalence commits us to the now-actuality of the future. The now-actuality of the future entails that our not acting in the way that we will is not-now-actualizable. PAP demands that our free will requires not acting in the way that we will to be now-actualizable. The only way to avoid the fatalist conclusion is to reject either bivalence or PAP. It is to these two options that we shall turn in chapter 6.

# Chapter 6

# Bivalence, PAP, and Presentism

In the last chapter we discovered that the theological fatalist argument of chapter four is reducible to a logical form of the argument that uses the same modality. This allowed us to discover that the most severe dilemma is the mutual incomparability of PAP, Bivalence, and Free-Will. The only way to avoid the fatalist conclusion (given the assumptions we made in chapter four) is to either give up bivalence, or give up PAP.

I will consider how one might go about giving up bivalence (section 6:1) and then how one might go about giving up PAP (section 6:2). I will favor the former. After we have considered how one might go about either option (and the bullets one will have to bite by doing either), I will (as promised) then turn to considering the falsity of the assumptions of chapter four (section 6:3). I will consider if presentism can accommodate LCTT without commitment to the now-actual future (and the consequences of it doing so), and I will then consider how one might give up LCTT.

### 6:1 – Giving up Bivalence

The Principle of Bivalence is the doctrine that every proposition (regardless of what it is about) has a truth value and that truth value is either True or False. The most severe dilemma motivates one to give up bivalence since it points out that bivalence commits one to the now actuality of the future, which is in direct

contradiction with free will as it is defined by PAP.[1] But it is important to note that giving up bivalence does not require one to hold that all proposition lack a truth-value. Normally, when one denies bivalence, one holds that it is propositions about the future that have no truth-value. [2]

Denying a truth-value for all future-tensed propositions would be sufficient to avoid a commitment to the now actuality of the future; but it is not required. One could still avoid the fatalist conclusion and yet still hold that there are some propositions about the future with a truth-value. If a proposition about the future has a truthmaker in the present (*e.g.,* "The sun will rise tomorrow" might have a truthmaker in the present physical condition of the sun and earth), the truth of that proposition does not commit one to the now-actuality of the future. It is denying a truth-value to propositions about future human actions—whose truthmakers can only be (if the world is not deterministic) the now-actuality of the future human actions to which the propositions refer—that is required if we are to avoid the fatalist conclusion. But if any proposition lacks a truth value, bivalence is by definition false, and thus by denying a truth-value to such propositions, we will be forced to deal with the consequences (*i.e.,* the objections).

Reasons for not giving up bivalence are strong. We will now look at some objections against giving up bi-valence (section 6:1.1). I will argue that these objections are avoidable, and that giving up bivalence (in the way that I suggest) is

[1] Another good reason for giving up bivalence is that it is also in direct contradiction with the assumption of temporal asymmetry: see section 6:2.2.3.

[2] I should be noted that I am here assuming that there are propositions about the future. If one did deny that there are propositions about the future, one could still maintain that all propositions have a truth value (and thus not deny bivalence), without being committed to prior truth and the fatalist conclusion that follows from it. But, since it clearly is the case that there are propositions about the future—given the fact that anyone can speak a coherent statement about the future—I reject this possibility outright as a plausible solution to the fatalist dilemma as I have presented it.

defensible (section 6.1.2; 6:1.3), and in fact allows one to maintain the compatibility of free will and God's omniscience (technically defined) (section 6:1.4).

### 6:1.1 – The Consequences: Why Giving up Bivalence is not Easy

#### 6:1.1.1 – Successful Future Prediction

The first objection relies on intuition:

> If propositions about future human actions now have no truth value, then if one now utters a proposition (or has a belief) about a future human action, that proposition (or belief) is not true as one speaks the proposition (or has the belief). In order for the utterance (or belief) to have a truth-value at that time, the proposition expressed in the utterance (or assented to by belief) must be true at the time of utterance (or belief). However, if by one's utterance (or one's belief) one correctly predicts what occurs, it seems plainly clear that the utterance (or belief) did have a truth value as it was uttered (or believed). If one said (or believed) yesterday, "The Sooners will win tomorrow," and the Sooners did win today, not only would one be correct if one were to express (or assent to) the same proposition again, but one was correct—what was said (or believed) was true—when it was uttered (or assented to) the first time. It was true as it was said (or believed). [If it wasn't, we could not give them credit for being "right."] Giving up prior truth requires one to abandon this highly intuitive way of looking at *successful future prediction* and thus should be avoided.

Although this is a highly intuitive account of what should be said in cases of successful future prediction, this objection I think can be avoided by simply biting the bullet and admitting that this is not the correct way to describe what occurs during successful future prediction and offering another alternative description of such cases. Such an alternative could simply suggest that successful future prediction—being correct when one utters (or assents to) a future tensed proposition—does not consist of uttering (or believing) something that is true as one utters (or believes). It consists of uttering (or believing) something that *becomes* true. This is not to suggest that what you say is true (as you say it) because it will become true; such a position falls prey to a need for truthmakers.[3] It is to suggest that, when a person correctly predicts the future and we look back on her utterance (or belief) and say "she was right" what we mean is this: "When she uttered (or believed) what she uttered (or believed), she did not utter (or believe) something that was true, and thus her utterance (or belief) was not true as it occurred; but she expressed (or assented to) a proposition that eventually became true and her prediction was "successful" in that sense. [This also allows us to say that unsuccessful future predictors were "wrong," even though their utterance (or belief) was not false as they uttered (or believed).]

**6:1.1.2 – The Law of Excluded Middle and Non-Contradiction**

But a rejection of bivalence causes even more serious problems. Since bivalence is a fundamental axiom of logic, a rejection of bivalence will cause problems all the way throughout logic. One of the most serious problems is that it will require a rejection of the law of excluded middle.

[3] One would need to account for what makes "it will become true" true.

The law of excluded middle is often confused with the Principle of Bivalence. The law of excluded middle suggests that all propositions of the form "Av~A" are true; but holding this is not the same as holding that all propositions have a truth value, nor is it entailed by it. Notice that both A and ~A being false is consistent with all propositions having a truth value, thus—by the lights of the Principle of Bivalence alone—"Av~A" could be false. It is bivalence in conjunction with the law of non-contradiction—the logical axiom which suggests that a proposition cannot be both true and false [*i.e.,* □~(Γ&~Γ)]—that entails the law of excluded middle.

But if bivalence is rejected—even if we accept non-contradiction—it seems that excluded middle would have to be rejected as well. Suppose that A is a proposition about some future human action, but we have rejected bivalence to avoid the fatalist conclusion, and thus accept that A has no truth value. Since ~A is also about that same future human action, it would seem that we will also have to accept that ~A lacks a truth value. But notice that, since by the definition of a disjunction, at least one side of a disjunction must be true if a disjunction is to be true—*i.e.,* "Γv~Γ" is true IFF either Γ or ~Γ is true—the proposition "Av~A" will not be true. Neither A nor ~A are true—they both lack a truth value—and thus "Av~A" is not true.

But it gets worse: A rejection of bivalence also seems to force a rejection of non-contradiction. Again, it seems that if something lacks a truth value so too does its negation; thus if Γ has no truth value, then it would seem that ~Γ has no truth value as well. But one would also assume that if both sides of a conjunction lack a truth value, the conjunction itself would too. Thus, if Γ is a future tensed proposition,

“Γ&~Γ” would lack a truth value, and so too would its negation: ~(Γ&~Γ). Thus, □(~(Γ&~Γ)) would not hold.

Both consequences are highly problematic for a number of reasons; I will mention only a couple. First, these results are highly un-intuitive. For example, even if the future is not now-actual and D lacks a truth value, “Dv~D”—*i.e.,* either Joe will decide at noon tomorrow to do X or he will not—seems very clearly true. Second, ~(Γ&~Γ) not being a tautology will invalidate the logical derivation and argument testing methods (trees and tables). Showing that a contradiction follows from an assumption is a standard way of falsifying assumptions; but without the assurance that all contradictions are false, such a move will not be justified. Additionally, “closing off a branch” on a truth tree can only be done when a contradiction appears on that branch—this is supposed to indicate that branch contains impossible truth values given the assumptions—but without the assurance that all contradictions are false, it cannot be assumed that the branch does contain impossible truth values and thus one is not justified in closing off the branch. Without these rules, classic sentential and predicate logic are both incomplete and unsound.

Aristotle tried to avoid a rejection of excluded middle by simply suggesting that the law of excluded middle still held, even for future-tensed propositions, even though future-tensed propositions were indeterminate (*i.e.,* lacked a truth-value). I suppose this would essentially be to suggest that we should treat excluded middle as a fundamental rule of logic. I suppose we could attempt to do the same with non-contradiction, but such moves would stand contrary to the definition of disjunction and conjunction, and thus seem unsatisfactory. To avoid this problem we need a way

to make sense of the non-truth of propositions about future human action, without being forced to abandon the laws of excluded middle and non-contradiction.

Multi-valued logics are the very things that attempt to do this.

**6:1.2 – Multi-Valued Logics: How to Avoid the Consequences**

There are a number of multi-valued logics . Among the philosophers who defend them are Gottwald (2001), Cignoli et al. (2000), Hajek (1998), Turunen (1999), and Novak et al. (2000). (The latter three defend fuzzy logics, a subset of multi-valued logics.) Certainly a full exploration of the topic is unneeded; all that is needed is a way to reject bivalence without giving up excluded middle and non-contradiction. To do this, I will simply explicate the multi-valued logic that I think best does the job: the 3-valued logic of Bourne (2004).

Many multi-valued logics are 3-valued logics. There-valued logics add an additional truth-value to the standard bivalent logical system. This truth value is usually labeled "Indeterminate" or "1/2." (I shall denote it as "I".) Bourne's is no different.

In his work, he first identifies how earlier attempts at 3-valued logics, such as Lukasiewicz's (1920), failed to preserve both excluded middle and bivalence. He then argues that they failed because of how they treated negation. As I did in the last section, Lukasiewicz assumed that if a proposition has an indeterminate truth value, its negation must as well. Bourne argues however that this is mistaken. Instead, the indeterminate truth of a proposition yields positive truth for that proposition's negation. If it is indeterminate that X will occur, then it is not now-true that X will

occur, and thus "X will occur" must be false. With this simple modification to Lukasiewicz's system, both excluded middle and non-contradiction are saved.

| Γ | ~Γ | (Γ | v | ~Γ) | ~ | (Γ | & | ~Γ) |
|---|---|---|---|---|---|---|---|---|
| T | F | T | **T** | F | **T** | T | F | F |
| I | T | I | **T** | T | **T** | I | F | T |
| F | T | F | **T** | T | **T** | F | F | T |

Notice that, in this system, both □(Γv~Γ) and □~(~Γ&~Γ) hold, and thus excluded middle and non-contradiction hold true. Additionally, in such a system, many more intuitive results hold. "Γ&Ω" is only true when both are true, and when one is true and the other is indeterminate, then it is indeterminate. Even though "Γv~Γ" is true if Γ is indeterminate, "ΓvΩ" will not be true if both Γ and Ω are indeterminate; instead it will be indeterminate as expected. Additionally "Γ⊃Ω" [equivalently "~(Γ&~Ω)"] will be false only when Γ is true, but Ω is not (because Ω is either false or indeterminate.)

| Γ | Ω | ~Ω | (Γ | & | Ω) | (Γ | v | Ω) | ~ | (Γ | & | ~Ω) | Γ | ⊃ | Ω |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | T | F | T | **T** | T | T | **T** | T | **T** | T | F | F | T | **T** | T |
| T | I | T | T | **I** | I | T | **T** | I | **F** | T | T | T | T | **F** | I |
| T | F | T | T | **F** | F | T | **T** | F | **F** | T | T | T | T | **F** | F |
| I | T | F | I | **I** | T | I | **T** | T | **T** | I | F | F | I | **T** | T |
| I | I | T | I | **I** | I | I | **I** | I | **T** | I | I | T | I | **T** | I |
| I | F | T | I | **F** | F | I | **I** | F | **T** | I | I | T | I | **T** | F |
| F | T | F | F | **F** | T | F | **T** | T | **T** | F | F | F | F | **T** | T |
| F | I | T | F | **F** | I | F | **I** | I | **T** | F | F | T | F | **T** | I |
| F | F | T | F | **F** | F | F | **F** | F | **T** | F | F | T | F | **T** | F |

Bourne's system also has many other classically recognizable features.

> …from simple truth table tests we can see '&' and 'v' are both commutative and associative; 'P⊃P' is true (unlike Lukasiewicz's and Bochvar's systems!); 'P⊃Q' is equivalent to '~(P&~Q)'; the distributive laws [(Pv(Q&R)) ≡ ((PvQ)&(PvR)) and (P&(QvR)) ≡ ((P&Q)v(P&R))] hold; and a form of de Morgan's laws hold [(~(P&Q) ≡ (~Pv~Q)) and ~(PvQ) ≡ (~P&~Q)]… (p. 127)

But we will have to sacrifice a few things.

> …although, because of the definition of negation, we lose the equivalence between '&' and 'v' of the form 'P&Q ≡ ~(~Pv~Q)' and '~(PvQ) ≡ (~P&~Q)', as well as the equivalence '(~PvQ) ≡ (P⊃Q)' because of cases where P=[T] and q = [I]. It must also be said that, as so often with many-valued systems…this system is not functionally complete. But the sorts of truth-functions that cannot be generated by the connectives of this system have no application anyway, and so can be ignored. (p. 127)

So, if you accept this solution, these are the bullets you will have to bite, but I do not think that this is too high a price to pay.

Additionally, the following sacrifice will have to be made. "It is not true that X will occur" shall no longer be equivalent to "X will not occur." At first, this might seem unacceptable, but I suggest this intuitive reaction is rooted—not in truth—but in a "bivalent habit." "If it is not now-true that X will occur," one might say, "then X will not occur. There is no other option." But there is another option! It not being true that X will occur could be accomplished in two ways: either by being false or being indeterminate. Our assumption that there is no other option is the result of our being exposed to bivalent logic for so long; we have developed a bivalent habit. But this habit—this assumption—cannot be used to establish that multi-valued logic must be rejected in favor of bivalent ones. The suggestion that there are only two options just is what bivalence is; it cannot be assumed to establish its truth without begging the question. (Of course, you cannot assume that there are more than two options to prove the truth of multi-valued logic either, but that is not what I am doing here. I am simply arguing that there is a multi-valued logic that is coherent and acceptable.)

If we rid ourselves of this bivalent habit, not only will we find a rejection of " 'It is not true that X will occur' IFF 'X will not occur' " acceptable—but we will find it intuitive. And, as a result, I believe we will also find the sacrifices mentioned by Bourne (in the second quote above) to be acceptable as well. I maintain that

Bourne's 3-valued logic is defensible as a way to reject bivalence by giving up prior truth.

### 6:1.3 – Special Relativity and the Now-Actual Future

If a coherent account of multi-valued logic can be given, it seems that we can avoid being committed to the now-actuality of the future for logical reasons. Thus, we can avoid being forced (by the arguments presented in chapter 5) to the fatalist conclusion. However, there may be other, non-logical (in this case scientific), reasons for thinking that the future is now-actual. And if these reasons hold, two things are quite clear: (1) We will be committed to prior truth by being committed to the now-actuality of that which makes propositions about the future true; if we are committed to the actuality of D's potential truthmaker, we cannot simply deny that D is true because we want to do so. (2) We will be committed to the fatalist conclusion for other (in this case scientific) reasons.

#### 6:1.3.1 – Why Special Relativity Entails a Now-Actual Future

The reason we may be committed to the now-actuality of the future, even if we find a coherent way to reject bivalence, is because the now-actuality of the future seems to be entailed by a very well-accepted theory in physics: the special theory of relativity. I certainly do not want to get bogged down in the complications of explaining special relativity, but a basic account of the argument from special relativity to the now-actuality of the future could be explained like this:[4]

Special relativity asserts that, in all inertial reference frames, the speed of light is constant. In other words, no matter how fast you are going, light will always travel

[4] This feature of special relativity also applies to general relativity, with a few added complications. It will not be necessary to cover them here.

(away from you, parallel to you, toward you) at the same rate. A consequence of the fact that "the speed of light is not relative to reference frames" is that other things—such as length, time duration, and simultaneity—are relative to reference frames. This is because the constant absolute value of the speed of light in all frames of reference implies that distances and time intervals between events are reference frame relative. It also follows that whether or not certain events happen simultaneously is not a matter of absolute/objective fact, but is relative to ones' reference frame.

Why the consistency of the speed of light forces this conclusion is complicated; I will not go into it here[5]—for its consequences are what are important. To explain this fact's consequences, let us press on.

Generally, relativity expresses the location of events in terms of their space time (ST) location; where and when a ST event occurs determines an event's ST location. Events that are ST located such that traveling between them would not require traveling at or beyond the speed of light, are said to be time-like related. ST events with ST locations that would require traveling faster than the speed of light to get from one to the other are space-like related. And events separated so that a light beam can travel directly from one to the other are light-like separated. Minkowski diagrams may be used to express ST location. With a Minkowski diagram, ST separation can be represented as:

[5] See Kosso (1997) for a concise explanation.

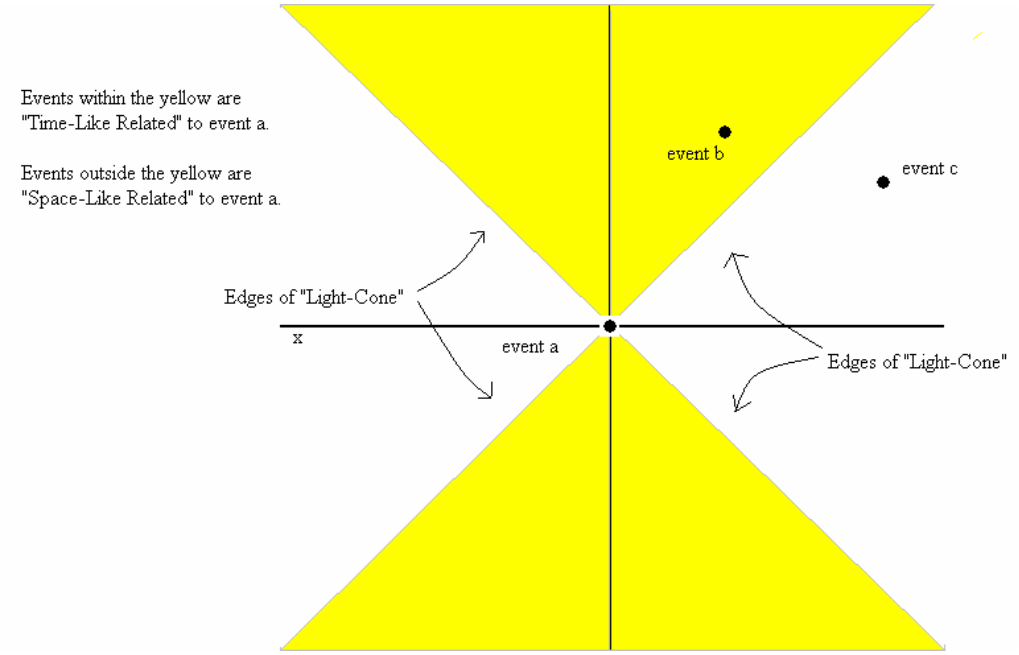



Figure 6.1

Let us say that anyone who views things as they are in figure 6.1 is in "reference frame 1." Let us say that there is a person in reference frame 1 (call her Lori), who is exactly in event a's ST location. The edges of the light cone in the upper half of the diagram represent where light would travel if emitted from event a; the edges in the lower half represent where light would be traveling from if it intersected with event a. Given figure 6.1, here are the objective facts: event a and event b are time-like separated, event a and event c are space like separated. There can be a causal relationship between event a and event b (Lori could be the cause of b). In fact, all events that Lori could be the cause of fall within the upper half of the light cone. But there cannot be a causal relationship between event a and c; Lori cannot cause event c. Lori would have to travel faster than the speed of light (which is impossible) to get

to event c's ST location to cause event c. Further, since event a could be the cause of event b, their sequence is determined; event a occurs before event b.[6]

But this is pretty much where the objective facts end and things start to get weird. The temporal order of event a and event c is not determined. Lori will judge any events with a ST location above the x axis (like event b and event c) to happen after a, any event below the x axis to have happened before event a, and any event on the x axis to be simultaneous with event a. However, let us say that someone called "Red Joe" is traveling very fast, and travels by *event a's* ST location. Let us represent Red Joe's path of travel like this:

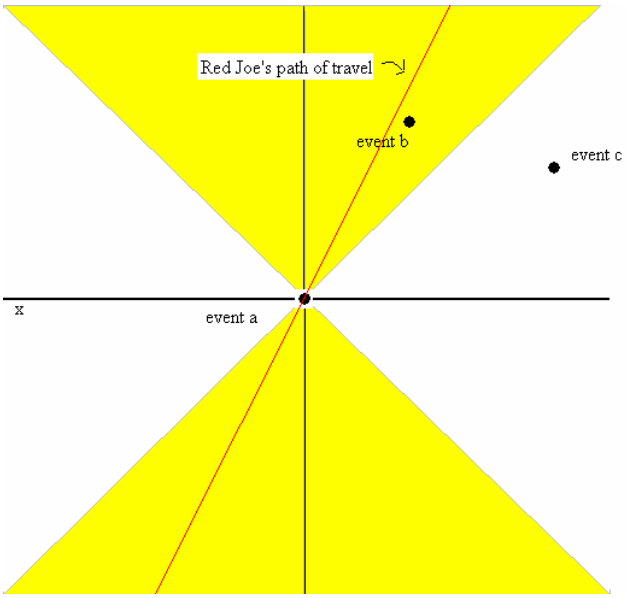



Figure 6.2

Red Joe is in a different reference frame, since he is traveling through space as time passes relative to reference frame 1, while Lori, who is at rest in frame 1, just travels "vertically" in the diagram, through time, but keeps the same spatial location in frame 1. But for Red Joe light still travels at the same rate as it does in all reference

[6] Although how much time elapses between a and b is relative to one's reference frame.

frames. So Red Joe is forced to view the world a little differently than Lori. The temporal order of some events, from Red Joe's point of view (his reference frame) shifts, in the following way:

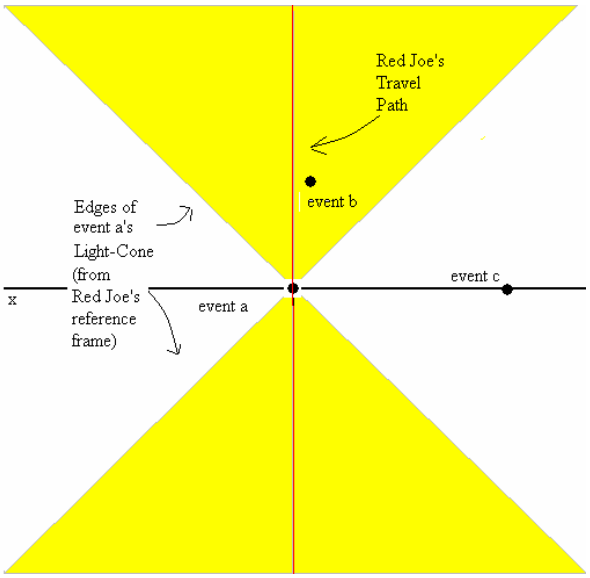



Figure 6.3

For Joe, events along the x axis (or any line parallel to the x axis) occur simultaneously. We could call the x axis in the figure 6.3 Red Joe's plane of simultaneity. We could represent Joe's travel path and plane of simultaneity from Lori's reference frame (reference frame 1) as follows:

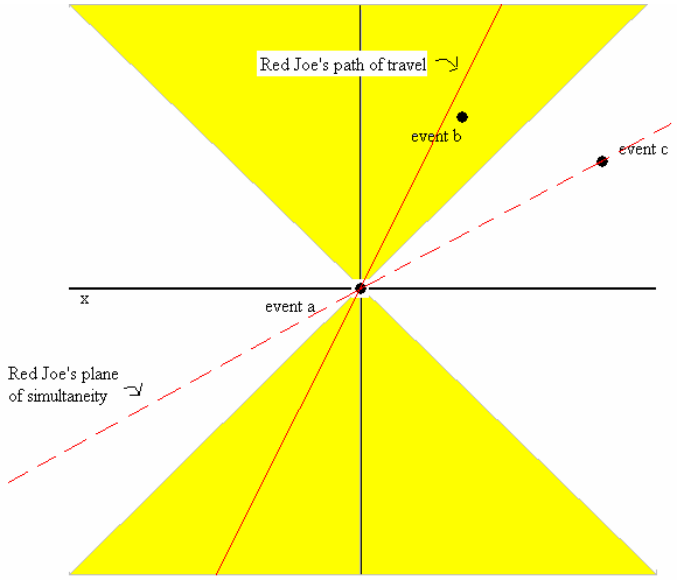



Figure 6.4

Notice what this forces Lori to conclude as Red Joe flies past her: "Any two things that co-exist are co-actual. Event a is clearly now-actual—it co-exists with me and I am now-actual. But event a co-exists with event c in Joe's reference frame; they are simultaneous in his reference frame. And according to relativity theory, no reference frame is "physically special"—physics treats them all as equally legitimate. So it is just as physically legitimate to use Joe's plane of simultaneity to measure co-existence as it is to use my frame. Thus event a co-exists with event c. But since event a is now-actual and event c co-exists with event a, event c must be now-actual as well. Thus, event c, even though it lies in my future, must be now-actual."

This is true of any ST event that falls outside of the light cone of reference frame 1. For any given such event, there is a reference frame in which that event is simultaneous with event a. Thus, all such events are co-actual with event a and Lori is forced to conclude that everything outside of the light cone is now-actual. But this may not be such a big deal in and of itself; after all events outside the light cone are

not events that Lori could cause—all the events Lori could cause are inside the her light cone—thus (at this point) Lori is not committed to the now-actuality of her future actions. But it shouldn't take too much to realize that, if we just do this process again from event c's perspective, the now-actuality of her future actions is exactly that to which Lori is committed.

Imagine a traveler named "Blue Bob" who is traveling past event c at a high speed in the other direction. Since event b falls outside of event c's light cone (and thus b and c are space-like related), he could be traveling in such a way that his plane of simultaneity falls along events b and c. We could represent his path of travel and plane of simultaneity, from Lori's point of view (reference frame 1), like this:

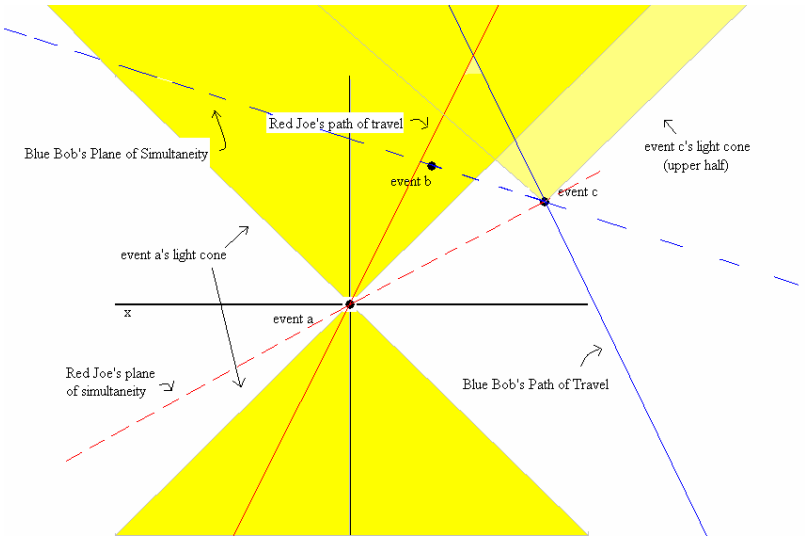



Figure 6.5

Lori now completes her reasoning process: "Since event c is simultaneous with event b in Blue Bob's reference frame, event c co-exists with event b. And since event c is now-actual (by the above argument), event b must be now-actual as well." And since the same overall process could be repeated for any point inside event a's light cone (although we may have to use other space-like related events besides event c) Lori is

forced to conclude that all events inside event a's light cone—*i.e.,* all events that she could now cause—are now-actual. In short, Lori is forced to accept the now-actuality of the entire future.

We might summarize how special relativity commits one to the now-actuality of the future like this:

> Take any event (call it A), and any event that is light-like separated from A (call it B) such that B is in A's future light cone and thus B is in A's causable future.
>
> 1) For any two events that are space-like separated, there is a reference frame in which they are simultaneous and thus co-actual.
> 2) There is a ST event that is space-like separated from both A and B; call it C
> 3) Thus, there is a frame of reference in which C is simultaneous with, and thus co-actual with A, and a frame of reference in which C is simultaneous with, and thus co-actual with, B.
> 4) Actuality is Transitive
> 5) Therefore, A is co-actual with B.

Since the same argument can be done for any ST event, in any reference frame, all ST events are co-actual with each other. The view of time one is forced to by such arguments physicists call "a block universe view." I have been calling it "omnitemporalism."

**6:1.3.2 – A Way Out**

One might be tempted to object to the above line of reasoning by the following argument:

> Event a and event c (not c and b) are not really simultaneous and thus co-actual with each other; Red Joe just sees them that way because of his speed. Reference frame 1 is the correct point of view to see things from, and nothing

> is really actual except what lays in reference to frame 1's past and present. If Joe would just slow down, he would see things like they really are.

The problem is that—as I mentioned above—special relativity suggests that there is no such "preferenced" reference frame. Red Joe could just as easily suggest that if Lori just slowed down[7] she would see things like they really are. According to special relativity, the "point of view" of each reference frame is just as good as any other, and thus there is no way to determine actuality by reference to a preferenced reference frame.

Of course one could decide to reject this suggestion and hold that there is a preferred reference frame, but finding a good candidate and showing that it should be preferenced is not easy. One might think that the reference frame of "absolute rest" would do, but even proving that there is such a reference frame is quite problematic. Every reference frame is in motion from the point of view of every other, thus it does not seem that the frame of absolute rest could be found. One might suggest that the reference frame of absolute space could be used to find the reference frame of absolute rest, but this would require a substantival view of space—*i.e.,* this would force one to include "space time points" in one's ontology—and many are not willing to do so. And even if one was willing to do this, finding such a reference frame is still problematic.

However, there is one reference frame that shows promise as a preferenced reference frame; we might call this "the reference frame of the big bang." And we

[7] from Red Joe's point of view, she is moving at the same speed as she takes him to be moving, but in the opposite direction

might be able to identify this reference frame, and argue for its preferred status using background cosmic radiation.

Astronomers measure the age of the universe by measuring the amount of cosmic microwave background radiation (CMB) in the universe. CMB is (very simplistically put) the heat left over from the big bang. As the universe expands, it also cools (*i.e.,* the wavelength of the CMB decreases). We can discover the age of the universe by measuring how hot it is now, figuring out how hot it was, and determining how long it would take (and how much the universe would need to expand) to cool the universe down to its present temperature.

Notice however that, in some inertial reference frames, you will get some really strange results. Since simultaneity is relative, there will be some reference frames where in one direction the universe is really hot (the CMB is really hot; the universe is really young, indeed at a great enough distance the big bang is just beginning) and in the other direction the universe is really cold (where the CMB is very cool; the universe is really old, indeed the big band occurred very long ago). Essentially, there will be reference frames in which the universe is just "beginning" on one side and is "ending" on the other. The problem seems obvious: this just doesn't seem right. It cannot be that such a reference frame is just as good as the one in which the CMB is distributed equally throughout the universe. After all, we think that the universe cools at a uniform rate; that is the assumption we make when we measure its age. Thus why not favor the reference frame in which the CMB is most uniform and call it "the big bang's reference frame?"

It seems that we can; at the least this position seems defensible. And if it is, we can not only argue for an absolute notion of now-actuality—nothing will be actual unless it lies in the past or present of the big bang's reference frame—but for absolute notions of rest, length, duration, and simultaneity. This is one of Michael Tooley's (1997) projects in "Time, Tense, and Causation." Even though it seems to be that Tooley, given other commitments, is committed to the now-actuality of the future (as I have defined it), if his efforts in this endeavor are successful, and if we can defend a coherent multi-valued logic, we have a perfectly good way out of the fatalist dilemma.

**6:1.4 – The Way to Go**

I maintain that giving up bivalence and the now-actuality of the future in the way that I have described (Bourne's 3-valued logic and Tooley's view of special relativity) is the preferable way to avoid the fatalist conclusion. Even if the reader is not convinced by Bourne and Tooley type arguments, the need to reject bivalence (and develop similar views) should be clear. (I will discuss why I do not think giving up PAP is preferable in the next section.) In fact, this solution has one more added bonus: even though foreknowledge is incompatible with free will (since foreknowledge requires prior truth), this solution allows the theist to hold that omniscience and free will are logically compatible by allowing one to maintain that omniscience does not require foreknowledge.

To see why this is the case, we will look to Open Theism. Open theists try to maintain that omniscience is compatible with free will even though foreknowledge is not. I will show that their arguments to this effect are not successful, but that my

preferred solution to the fatalist problem (*i.e.,* rejecting bivalence) gets exactly the result that the open theist wants. I thus suggest that they should abandon their previous arguments and embrace a rejection of bivalence.

**6:1.5 – Open Theism**

Open theists[8] avoid the fatalist conclusion of theological fatalism by suggesting that God does not have infallible fore-beliefs about the future. They recognize the logical incompatibility of foreknowledge and freewill, view it as inescapable, and thus give up believing in the former, so that they may believe in the latter.[9] Of course, opponents of open theism challenge that the open theist's God is not perfect: "He is not omniscient," they object, "he does not know everything and thus is not perfect." Open theists reply by arguing that God not knowing the future does not preclude his omniscience.

Since open theism is a movement, there is not uniform agreement about that to which this argument amounts.[10] But since Hasker is the most well known philosopher of the group, we can look at what he says to get a pretty good idea about what the standard open theist's argument for this looks like.

Hasker (1998) suggests that God is still omniscient, even in the absence of complete foreknowledge. To argue to this point, he rejects the classical definition of omniscience (as defined in chapter 1) and instead accepts the technical philosophical

[8] Open Theists include Rice, Sanders, Pinnock and Hasker; see Pinnock (1994), Hasker (1998).
[9] The theologians and biblical scholars in this group cite biblical evidence for viewing God this way.
[10] If the open theist suggests that God is omniscient in that he could know the future but doesn't—in that the future is there to know, and God could know it but chooses to ignore it—then the open theist response is essentially the same as the first failed attempt to answer theological fatalism, given last chapter (section 5:6.1). But on my understanding, the open theists recognize the faultiness of this position and do not hold it.

definition. He puts forth this definition in step 2 of his version of theological fatalism. As he puts it:

> [Given God's omniscience it] is impossible that God should at any time believe what is false, or fail to believe anything that is true. (Section III)

After finishing his rendition of theological fatalism, he adds:

> What this argument shows is that it is logically impossible that God should have foreknowledge of a genuinely free action. It follows from this that if there are actions which are free in the libertarian sense, [then] it is logically impossible for God to know in advance how such actions will turn out. And in the light of our definition of omniscience, God's failure to know what logically cannot be known in no way detracts from God's omniscience. (Section III.)

Thus, Hasker suggests that God not knowing the future does not preclude his omniscience, because God having knowledge of the future is logically impossible (given that we are free).

However, I fail to see how this follows. The definition he gives suggests that God believes only and all truths—it says nothing about omniscience not requiring that which is logically impossible. If the propositions which are logically impossible for him to know are true, then God does not know all truths and he cannot be said to be omniscient by the above definition. What Hasker needs to make his argument work is a premise that suggests that there are not truths about that which is logically impossible for God to know. But he has no such premise. In fact, he seems to think that this is false.

> …the definition of omniscience given in step 2 of the argument above is faulty, because it fails to allow for the possibility of truths which are intrinsically unknowable. (Section III)

Clearly, the truths that Hasker thinks are intrinsically unknowable are truths about future human action. Since Hasker admits that there are such truths, he must admit—

at least by the technical philosophical definition that he gives which suggests that God believes only and all truths—that God is not omniscient if he does not believe them, even if they are logically impossible for God to know.

To establish that God is omniscient in the absence of foreknowledge, what Hasker can do—and given the above quote, what I think he wants to do—is this: redefine omniscience in such a way that it suggests that knowledge of unknowable truths is not required for omniscience. But I find this move unpalatable because I find the entire concept of unknowable truths problematic.

First, if there are truths about future human behavior, then there are truthmakers for them, and it seems clear that it is logically possible for God to be aware of these truthmakers and thus to justifiably believe these truths. (If he cannot, there is a part of the open theist's ontology which they suggest is logically impossible for him to know; and this seems contrary to their doctrine that God knows all of reality "as it is.")[11] Second, there cannot be something true that is logically impossible for God to justifiably assent to (*i.e.,* justifiably believe). For goodness sake, if there are true propositions about future human action, I can justifiably assent to them. (At the least, with people I know—if there are truths about their future actions—I could have a justified true belief about how they will behave). If I can do it with people I know, certainly God could do it with everyone.

Of course, Hasker may point out that (by the lights of my own arguments) "God foreknows that Joe will freely decide at noon tomorrow to do X" is a logical contradiction (since foreknowledge is logically incompatible with free will) and thus suggest that "Joe will freely decide at noon tomorrow to do X" is an unknowable

[11] See the Sander's (2005) quote below.

truth. But this suggestion cannot be derived by what I have argued. What I have argued is that the former is a logical contradiction because *the being now-true of* the latter is logically impossible if we are free. The former being logically impossible does not entail that the latter is an unknowable *truth*; it entails that (if we are free) the latter must be unknowable *simpliciter* because it logically impossible for it to have a prior positive truth value.

Accepting that the latter has no truth value allows one to successfully conclude that God is omniscient, even without foreknowledge, without having to stray from the technical philosophical definition of omniscience. God not believing propositions that lack a truth value does not preclude him from believing all and only truths. Thus, we could literally conclude that God's omniscience—by the technical philosophical definition—is compatible with free will. And doing this is a much better than accepting the strange concept of "unknowable (un-assent-to-able) truths."

It is for this reason that I suggest that open theists (including Hasker) should abandon Hasker's argument and adopt a rejection of bivalence as a way to maintain the logically compatibility of omniscience and free will.

My positions are favorable to the open theist in a number of other ways as well. They provide the open theist separate and/or better philosophical justification for some of their other doctrines. For example, open theism maintains that the future could be knowable, but simply is not. To quote Hasker again:

> We hold that God is completely capable of creating a universe, every detail of whose history is solely determined by his sovereign decree. But it seems to us that a wise and good God would not want-and in fact, has not chosen-to create a universe such as this. (Section III)

Sander's (2005), in his summary of open theism on the main page of the official open theism website suggests:[12]

> In the openness debate the focus is on the nature of the future: is it fully knowable, fully unknowable or partially knowable and partially unknowable? We believe that God could have known every event of the future had God decided to create a fully determined universe. However, in our view God decided to create beings with indeterministic freedom which implies that God chose to create a universe in which the future is not entirely knowable, even for God. For many open theists the "future" is not a present reality-it does not exist-and God knows reality as it is.

The arguments of this work allow the open theist to defend this position. My arguments do not entail that foreknowledge of future human decision is impossible—only that foreknowledge of free future human decision is impossible. If God had wanted to, he could have created a world with an already written future (or a deterministic world, or a controlled world), thus providing truthmakers for future tensed propositions, and thus making knowledge of future human decision possible. However, in such a world, we would not be free, and it seems perfectly reasonable to assume that God chose not to create such a world for that reason.

Notice also, in this last quote, Sanders wants to reject the future's existence, *i.e.,* its now-actuality. If this is the standard position, the open theist should like my arguments even more; they could rely on them to provide separate, non-theological, argument for rejecting the future's existence (*i.e.,* its now-actuality).

Additionally, the arguments I present in this work may give them the ability to ward off some objections. As it stands,[13] open theists argue that (I) foreknowledge is not required for omniscience by suggesting that (II) foreknowledge is logically impossible given that we are free. And they rely on the soundness of theological

[12] http://www.opentheism.info
[13] at least if Hasker's argument is standard

fatalism to establish (II). However, the soundness of theological fatalism seems to be why they want (I) to be true in the first place; using it to establish (I) seems to put them in danger of "question begging" (or at least circular argumentation). However, if they can establish (II) without relying of theological fatalism they could avoid this objection. Obviously, the arguments of this work would be helpful in doing just that[14] and would allow them to avoid this objection.

I do not want to label myself as an open theist; there might be a few things I am not yet willing to accept. (However, I do not think open theism is a "dangerous doctrine" as many in conservative circles seem to think.) I simply want to point out that, for the open theists, embracing the logical incompatibility of prior truth and free will, and rejecting bivalence as a means to avoid commitment to the now-actuality of the future, could give their position quite a "boost."

But ultimately, what I have shown here, is that giving up bivalence, and accepting a 3-valued logic, allows one to maintain that God is omniscient—by the technical philosophical definition—and also maintain that humans are free. This is one more thing in favor of "giving up bivalence" as a solution to the fatalist arguments.

I will now turn to exploring the option of giving up PAP as a solution to the fatalist arguments.

### 6:2 – Giving up PAP

[14] They could rely on the logical fatalist argument; they could rely on a van Inwagen type intuition that what we will do is indeterminate until we do it. They could even defend this position with 3-valued logic.

Giving up PAP—suggesting that Joe having an ability such that, after its exercise then, Joe will act differently than he does is not required for free will—is clearly another way to avoid the fatalist threat presented by the incompatibility of PAP, bivalence, and free will. In the same way I did last section, I will show why the option in question is not an easy option to take (section 6:2.1) but articulate the best ways of going about it (section 6:2.2). I will show the bullets that one must bite in order to take this option, but ultimately conclude that it should not be preferred over giving up bivalence as a solution to fatalism.

### 6:2.1 – Why PAP is not Easy to Give Up: The Failure of Frankfurt

As I have mentioned before (section 1:2.2), many may think that the clear way to avoid the fatalist conclusion is to deny PAP, because Frankfurt-style counter examples (FCE's) have already shown PAP to be false. Here I will argue that the version of PAP that we have been using throughout this work is not falsified by FCE's.

#### 6:2.1.1 – What FCE's Try To Do, and How They Try To Do It

PAP*, and its variations, as we have been using them throughout this work are not the Principle of Alternate Possibilities in its original form. Originally it was formulated as a statement of that which is necessary for moral responsibility. Generally stated, it suggests that one is *morally responsible* for a decision only if one has alternate possibilities. I will call such statements moral versions of PAP. However, as Kane (2005) suggests, "Many Philosophers actually define free will as the kind of freedom that is necessary to confer true moral responsibility…" (p. 80). Consequently, the truth of moral versions of PAP would entail that free will also

requires the ability to do otherwise, and thus free will versions of PAP are entailed by the moral versions. FCE's supposedly serve as counter examples to both the moral versions of PAP, and to free will versions of PAP. Here I shall only be concerned with free will versions of PAP and FCE's falsification of them.

FCE's are situations in which Smith (the protagonist) supposedly decides to do an action, does so freely, and yet had no alternate possibilities. Consider a classic FCE that might be presented by one that is trying to falsify PAP:

> Smith is about to be faced with the decision to either kill Jane or not kill her. Black wants Jane dead, so Black implants a device in Smith's head that will monitor Smith's brain activity and, if it discovers that Smith is about to decide not to kill Jane, the device will activate, prevent Smith from making that decision, and force Smith's brain to go through an involuntary process that will result in Smith killing Jane anyway. But, as it turns out, the device is not needed because Smith kills Jane on his own accord.

In this FCE, clearly Smith has no alternate possibilities—the killing of Jane by Smith seems inevitable—and yet clearly Smith freely chose to kill Jane. It looks like—so says the example—PAP is false.

**6:2.1.2 – The Super FCE**

The literature that houses the debate on FCE's is extensive. Kane (1996) and Widerker (1995a, 1995b) have suggested that if Smith is free in the libertarian sense, whether or not he will make the decision is indeterminate until he makes it, and thus

Black's device cannot activate until the choice has already been made.[15] (This is called "The Indeterministic World Objection.") Consequently, there have been countless attempts to avoid such objections by re-describing Frankfurt's original example so that the device can successfully activate even in an indeterministic world.[16]

But for argument's sake, let us assume the libertarian objections to FCE's, and all like them, can be avoided. Let us assume that we can "beef up" the example to avoid such objections by telling some consistent story about how the world, the brain, and the device work, thus creating a "super FCE."

To do so, let us assume that the world is indeterministic and that it is not determinate how Smith will choose until he does so. Let us also assume that, somehow, the device can always, with 100% accuracy, predict that Smith is about to decide not to kill Jane and that it can prevent Smith from deciding not to kill Jane—and it can do so before Smith performs any action or causes any brain event (intentionally or non-intentionally) that would cause or even indicate that he would do so. Somehow, we will say, the device "just knows." In fact, we will even say that, even if bivalence were false, and there was no truth about what Smith is going to do before he does it, the machine still—always, somehow—works with 100% accuracy; it will still always activate before Smith is not going to kill Jane, and will always not activate if he is going to do it on his own. [17]

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[15] In short, it suggests that Black's device can only work if determinism is true, which would (supposedly) prevent his free will anyway. See Kane (2005, p. 87) for a short rendition of this argument and an exhaustive list of those who have defended it.

[16] *e.g.,* Mele and Robb (1998)

[17] These facts might be true of Mele and Robb's (1998) preemptive/overriding process FCE. For my argument it doesn't matter if it is or not.

I call this the "Super FCE" because the granted assumptions make it immune to all the classic libertarian arguments, and it grants the compatibilist everything that s/he wants. Given these assumptions, it is clear that Smith is unable to decide (at any level) not to kill Jane, and yet it is equally clear that, if the device never activates, Smith freely decides to kill Jane.

Now, the relevant question is this: does such an example falsify free will versions of PAP?

**6:2.1.3 – Two Versions of PAP**

As we know, there are many different versions of PAP, so the question above is too vague. PAP* had multiple interpretations because the word "possible" was ambiguous—different modalities produce different PAP's. However, the ambiguity goes even deeper. Recall, as it was stated above, PAP suggests that one is morally responsible for a decision (and that decision is free) only if one has *alternate possibilities*. However, the phrase "alternate possibilities" is ambiguous.[18] Not only is it unclear what kind of modality is being used, but the notion of "alternate" is unclear as well.

It is often stated that one has alternate possibilities as long as one is "able to do otherwise." On that understanding, PAP could be articulated as the following:

> Action PAP: "Smith freely does action A only if Smith is able to do otherwise (*i.e.,* to do action ~A)."

But Action PAP is clearly false. As Locke pointed out, in some cases clearly physical hindrances might prevent Smith from doing ~A, but Smith could still freely decide to

[18] A failure to clearly articulate the notion of "alternate possibilities" has lead to confusion regarding what FCE's actually prove, and has resulted in a lot of unnecessary debate.

and do action A. Additionally, if Smith decided to do action A, even if Smith could perform neither action A nor action ~A (due perhaps to physical hindrances) Smith would still be freely making whatever decision he made.

It is because of the falsity of Action PAP that "alternate possibility" is often understood in terms of decision, and PAP is thus articulated as a statement of a necessary condition for free decision. But the phrase "alternate possibilities" is even more ambiguous when applied in the realm of decision-making. In this realm, one alternate possibility that could be available to one is *deciding to do something else,* but another would simply be *not deciding anything at all*. Consequently, versions of "decision PAP's" can be "divided up" into two different types.

(PAP type 1): One can freely decide to do X only if it is possible* for one to decide not to do X.

(PAP type 2): One can freely decide to do X only if it is possible* for one not to decide to do X.

In the literature, versions of PAP that fall under both types have been articulated, but what has hindered progress in the debate on PAP is a certain kind of "laziness" regarding the articulation of PAP. Not only will authors sometimes fall back into the bad habit of using the phrase "able to do otherwise" (*i.e.,* they use some version of the clearly false "Action PAP"), but when they do recall to articulate PAP in terms of decision, they fail to clearly articulate and recognize the difference

between the two types. Authors will conflate the two types, bouncing back and forth between expressions like "To be morally responsible, Smith must be able to decide to do otherwise" and "the ability to fail to decide as he will is required, if Smith is able to be morally responsible" without recognizing that the two statements actually express different requirements.[19] The former, like type 1 PAP's, suggests that being able to make a decision different than the one Smith will make is required if Smith is to be morally responsible. The latter however, like type 2 PAP's, suggests that being able to not make the decision he will make, which could be accomplished by deciding otherwise but could also be accomplished by not deciding anything at all, is required for moral responsibility.

#### 6:2.1.4 – The Failure of Frankfurt-style Counter Examples

This conflation has hindered the debate because it has blinded philosophers to the obvious failure of FCE's. FCE's can unquestionably falsify type 1 PAP's, but cannot falsify type 2 PAP's.

Notice that the Super FCE clearly falsifies type 1 PAP's; even though it was not possible for Smith to decide not to kill Jane, he still decided to kill Jane freely and is morally responsible for doing so. Thus, clearly, the example is one in which the

[19] Examples of this difference being ignored comes from Fisher, specifically in his talk "Frankfurt-Examples: The Moral of the Story" at the 51st annual Wheaton College Philosophy Conference (2004). As he began, he suggested that if he has to choose what he does choose, then clearly he is not free or morally responsible, but then immediately turns around and suggests that this leads us to conclude that to be free and morally responsible "…is to be able to have acted otherwise" (p. 3). Clearly the former expresses type 2 PAP's, but the latter smacks of type 1 PAP's (and also Action PAP). He very clearly switches to the requirements of type 1 PAP's when he, while responding to Goetz in section 1.5, speaks only of the agent being unable to choose to do otherwise as a requirement for free will. This clearly articulates the requirements of type 1 PAP's.

Sometimes the difference is acknowledged but its importance is ignored, as it is by Speak (2002), when he defines PAP as "A person is morally responsible for an action A only if she could have done otherwise than A (or could have failed to do A)." Not only has he fallen back into using "action PAP" here, but clearly the difference between *doing otherwise* and *failing* is not here viewed by Speak to be an important distinction, but is exactly the difference between type 1 and type 2 PAP's.

requirement for moral responsibility set out by type 1 PAP's is not met, and yet Smith is still free and morally responsible.

However, notice that the example does not falsify type 2 PAP's. In the example it is possible that Smith not decide to kill Jane by Smith failing to decide to do anything at all; if the device had activated, it would have decided *for him*, and Smith would have failed to have (and thus not) decided to kill Jane. Thus even the Super FCE—which is immune to all the normal libertarian objections and gives the compatibilist everything s/he wants—is not one in which the requirement set out for free will by type 2 PAP's is not met and yet Smith is still morally responsible; the requirement for type 2 PAP's is met—it is possible that Smith not decide to kill Jane.

One might object: "If Smith does not decide on his own to kill Jane, the device activates and causes Smith to decide to kill Jane; thus Smith cannot not to do so." But this objection is misguided. Granted, if the device did activate, it may have (depending on how it works) made Smith's brain go through a neural firing sequence identical to the one Smith's brain would have gone through if he had just decided on his own to kill Jane—and this fact might entail that Smith would have the "mental experience" of deciding to kill Jane if the device activated—but if the device is the cause of that neural sequence (which clearly it is), it is the device that is "the decider" and not Smith. Clearly, if the device activates, Smith is "removed" from the situation and avoids "authorship"[20] of anything that is happening in his brain; thus it is clearly possible for Smith to not decide anything at all and thus to not decide to kill Jane).

Fisher (2002) might at this point object suggesting that simply failing to decide to kill Jane is not enough to ground moral responsibility, and thus neither is it

[20] to use Speak's (2002) term.

sufficient to ground free will; in the Super FCE the condition set out by type 2 PAP's is met, but meeting that condition is not to enough to make Smith morally responsible nor free. But, as Speak (2002) would undoubtedly argue, if the device did activate, not only would we not hold Smith responsible for killing Smith but in fact would praise Smith since Black's device had to step in to get Black's desired result. Smith would not have killed Jane if he had just been left alone and thus deserves moral praise.[21] (Of course, if the device did not activate, we would not hesitate to blame him). And thus it seems—given the bi-conditional relationship between moral responsibility and freewill—clearly Smith is still free, even in the Super FCE.

At this point, no doubt, some readers are trying to save FCE's by formulating some different FCE's that somehow avoids my point. But notice that no matter how one changes the counter example, as long as it is possible for the device to activate (which it must be if Smith is to be unable to decide not to kill Jane, a hallmark of all FCE's), it will be possible for Smith to not decide at all. In any FCE, it will always be possible for Smith to "not decide to do X" because the device activating will always be a possibility. Thus, Frankfurt-style counter examples can and do falsify type 1 PAP's, but no FCE can falsify type 2 PAP's.

And this conclusion is not entirely novel. This failure was, in a way, recognized by Peter van Inwagen in 1983 and others more directly and recently [See Zagzebksi (2000) and McKenna (1997)], but ambiguity and conflation in the debate has allowed this point to be largely ignored. Many still do not bother to recognize the difference between type 1 and type 2 PAP's and still argue for the success of FCE's based on their ability to falsify type 1.

[21] Of course, Speak's example is not exactly the same, but the point is the same.

#### 6:2.1.5 – The Consequences of FCE's failure

This failure of FCE's does not show type 2 PAP's to be true—what it shows is that FCE's fail to show type 2 PAP's to be false. The importance of this is clear: Type 2 PAP's have not been uncontroversially falsified like many think. And this is important because PAP* and its variants (including PAPΛ) are type 2 PAP's. Recall from chapter 1:

> PAP*: Joe freely decides to do X only if it is[22] now-possible* for Joe to not decide to do X.

Notice also that very clearly, PAPΛ, is just a variant of PAP* and is a type 2 PAP:

> PAPΛ: Joe freely decides to do X only if Joe has an ability such that after the exercise of that ability, Joe's not deciding to do X will be actual.

Since the PAP's we have been using are variants of type-2 PAP's but FCE's do not falsify type-2 PAP's, one cannot hope to avoid the fatalist conclusion of the arguments we have been considering by simply using FCE's to dismiss the PAP utilized in those arguments. If one wishes to give up PAP, one will have to find another way to do it.

Additionally, it shows that Frankfurt counter examples do not show compatibilism to be true. Some, such as Fisher (2004), have argued for this by

[22] It is important to note that the "is" here is in the present tense.

arguing along the following lines (p. 14): *Frankfurt counter examples show that being able to decide otherwise is not required for free will or moral responsibly. Since determinism was only thought to hinder our free will by making us unable to decide otherwise, Frankfurt counter examples clearly show free-will and moral responsibly to be compatible with determinism*. But the error of this argument should be obvious. Determinism not only entails that we are unable to decide otherwise, but that we cannot fail to decide as we will. Since the latter cannot be shown to not be a necessary condition for free will or moral responsibility by Frankfurt-style counter examples, determinism cannot be shown to be compatible with free-will and moral responsibly by Frankfurt-style counter examples.

Lastly, the intuitiveness of PAP* and PAPΛ has been bolstered. Although outside forces may control you, or even your brain, preventing you from making a certain decision, it seems clear that if they do, you are not responsible for your action, nor is it free. However, if you not deciding as you will is impossible (*e.g.,* unavoidable, inevitable)—if you have no ability such that after its exercise then you will have failed to decide as you will—its seems quite intuitive that you are not free. It certainly seems you cannot be morally blamed for your actions; you could not have kept from doing what you did. And if you cannot be blamed, it certainly does not seem that you are free.

**6:2.2 – Alternate Definitions of Free Will**

This type 1/type 2 distinction is not often recognized, and the conflation of the two is common. Consequently, I know of no philosopher that directly attacks type 2 PAP's (without conflating them with type 1 PAP's). However, since FCE's have

been thought to falsify PAP for a long time, there are a few alternate definitions of free will that are worth considering. And even though we do not have a direct refutation of type 2 PAP's, if one of the new definitions is intuitively more preferable, it seems that might be good enough reason for rejecting type 2 PAP's in favor of the new definition. I will not defend this claim, nor will I try to argue for a specific alternate definition; but if such a definition is defensible, accepting it would be a defensible way out of the fatalist conclusion. I of course do not favor this way out but I shall give a quick overview of some of the best options.

#### 6:2.2.1 – Compatibilism

Compatibilism asserts that determinism is compatible with free will. Although formulated in many different ways, we shall characterize determinism as the thesis that past facts in conjunction with the laws of nature causally entail every truth about the future. Clearly determinism thus suggests that there is only one possible (*i.e.,* actualizable) future. Any theory that suggests that free will is compatible with determinism will entail the falsity of type 2 PAP's,[23] and allow us to reject the first premise of the fatalist arguments. (Likewise, any definition of free will that suggests that free will is compatible with determinism will, if plugged into the fatalist arguments in place of the first premise (PAP), will make the argument

[23] Some lesser accepted compatibilists positions actually accept PAP (both types), and argue that determinism is compatible with the ability to do otherwise. These views suggest—not that agents have the power to change the past or the laws of physics but—that agents have the ability to act in such a way that, had they acted that way, the past or the laws of physics would have been different. (See Lewis (1981) and Saunders (1968); I also take this to be similar to Plantinga's (1998) response to Theological Fatalism.) In my view, there is no relevant difference between the ability to change the past and this later ability; given that the past and the laws of physics are both now-necessary (unchangeable, un-causable, etc.) no one now has the ability to act in a way such that if they did the past or the laws would have been different. For this reason, I will not discuss these views in the main text.

unsound.) Let us now turn to considering compatibilism. We will first consider the theories of Frankfurt and Fisher & Ravizza, and then Strawsonian Theories.

#### 6:2.2.1.1 – Psychological Structure: Frankfurt and Fisher & Ravizza

Frankfurt (1971) and Fisher & Ravizza (1998)[24] develop somewhat similar theories. The theories are similar in that they all suggest that a person freely decides to perform an action when their psychology (or a piece of it) is structured in a certain kind of way, and that psychology brings about that action. The theories differ in the way in which they describe the required structure of the psychology.

Frankfurt, for instance, suggests that a person's desires must be ordered in a certain kind of way in order for free willed action to occur. For instance, if a person has two conflicting first order desires—say one for A and one for ~A—but has a second order desire for A to be the desire that gets fulfilled, and she acts to fulfill that desire, that person acts freely. And it is the case that when a person acts thusly under the influence of this kind of desire hierarchy, that person is acting freely even though they could not have refrained from acting/deciding in that way. (This is unlike a person who has no second order desire, or has a second order desire for ~A but does A anyway—such persons are not acting free.) Thus Frankfurt can be understood as suggesting that one is free IFF one's actions issue from first order desires which one has second order desires to see fulfilled. (One might say, one is free IFF one's will coincides with one's wishes.)

Fisher & Ravizza suggests that the psychological mechanism responsible for (*i.e.,* involved in bringing about) an action must be *responsive to reason* if the action/decision is to be free. According to Fisher & Ravizza, the psychological

[24] See also Fisher (1994)

mechanism that brings about an action is responsive to reason if it would have refrained from bringing about that action upon the condition of having a good reason to refrain. (And of course, if the physiological mechanism that brings about an action is not sensitive to such "reasons against," then the actions are not free.) Notice that this theory does not suggest that the agent performing this free action could have acted otherwise, or even refrained from performing it. It certainly might be the case that reasons for not doing the action will necessarily not present themselves and thus, given the fact that the mechanism is the way it is, the agent performing the action is inevitable. Thus, Fisher & Ravizza is not suggesting that the agent must be able to "do otherwise" in order to be free. Consequently, according to Fisher & Ravizza, even if determinism is true and there is no other possible future but the actual one, free will decision/action is still possible.[25]

As I see it, these theories are similar to the classical compatibilist theory of Hobbes which suggested that a person is free as long as she can (unencumbered) act in accordance with her wishes. Hobbes' theory was faulty because clearly people with unhealthy psychologies—such as addicts or the mentally ill—act in accordance with their wishes but clearly are not free. They seem to be un-free because the wishes in which their actions are grounded are out of their control due to an "ill psychology." I think it helpful to (simplistically) view theories such as Frankfurt's and Fisher & Ravizza's as attempts to avoid the above objection that plagued Hobbes. To do this, they suggest that when an agent acts (unencumbered) in accordance with their wishes,

[25] As compatibilist theories go, Fisher & Ravizza's theory is regarded highly. It has been expounded by Haji (1998).

and those wishes and their fulfillment is rooted in a healthy (properly configured) psychology, the agent is acting freely.

Much more could be said about such theories, and the "objection/response" development of them still continues; but both theories, if true, establish compatibilism and would allow one to avoid the fatalist conclusion as it is argued to by the fatalist arguments we have considered.

But such definitions of free will are questionable.

One objection looms over all theories that suggest an action can be free as long it is rooted in a properly configured psychology. It seems quite clear that if an agent's properly configured psychology is due to manipulation—if some neurosurgeon (for example) steps in and alters the agent's brain so that the agent's psychology is properly configured—and the agent's actions are rooted in that psychology, the agent's actions are not free. However, it is unclear how such influence differs from the influence of determination. In a deterministic universe, past facts (*e.g.,* environment and DNA) seem to determine an agent's psychology in much the same way as a manipulator would (*e.g.,* same way that a neurosurgeon would: by determining the configuration of the brain). If the compatibilist cannot show how determination and manipulation differ, the compatibilist would seem to be forced to admit that a determined psychology is just as un-free as a manipulated one and will not have given an account in which determinism is compatible with free will.

One way out for the compatibilist is to simply be, what McKenna (2004) calls, an internalist. An internalist is one who suggests that only the psychology present at the time of action needs to be taken into account when trying to determine whether or

not an agent is free or morally responsible; how the agent got that psychology—the historical story behind it—is unimportant. Such an internalist will simply *bite the bullet* and say that agents who act in accordance with a property configured psychology—even if that psychology is brought about by manipulation (or determination)—is still acting freely.

Frankfurt is, as McKenna puts it, a "pure internalist." As McKenna quotes Frankfurt (2002):

> What we need most essentially to look [at] is, rather, certain aspects of the psychic structure that is coincident with the person's behavior…. A manipulator may succeed, through his interventions, in providing a person not merely with particular feelings and thoughts but with a new character. That person [with the new character] is then morally responsible for the choices and the conduct to which having this character leads. We are inevitably fashioned and sustained, after all, by circumstances over which we have no control. The causes to which we are subject may also change us radically, without thereby bringing it about that we are not morally responsible agents. It is irrelevant whether those causes are operating by virtue of the natural forces that shape our environment or whether they operate through the deliberate manipulative designs of other human agents. (Section A.)

But of course, this is a pretty hard bullet to bite. As Watson (1987) argues, the importance of the historical story—when making judgments about free will and morally responsibility—seems very important. One's willingness to assign full moral culpability upon a criminal who commits even the most heinous crimes seems to be lessoned if one learns that the criminal's life was filled with equally heinous abuses and hardships. But as I see it, ones acceptance or rejection of such compatibilist theories as ways to avoid the fatalist dilemma, will turn one's willingness or unwillingness to bite this bullet.

I myself am not wiling to bite.

#### 6:2.2.1.2 – Strawsonian Theories

As I summarize him, Strawson (1962) argues for compatibilism in the following way.

> Debates about whether or not a person is free and morally responsible for doing a certain action involve more than judgments about whether or not they were able to do otherwise, could have refrained, have healthy psychologies, or whatnot. They are also (and mainly) about whether or not we (the moral community) have a morally reactive attitude towards their action. However, it is psychologically impossible to refrain from holding people morally responsible (or praiseworthy) for their actions. Even if we discover that determinism is true, we will continue to assign blame and give praise. Thus determinism must be compatible with free will.

Although Strawson might not be friendly to it, one might simply summarize his argument as this: "An agent is free/morally responsible IFF the moral community reacts to the agent as being free/morally responsible, and since the moral community will continue to react to agents as free/morally responsible, even if determinism is true (and the moral community discovers that it is true), determinism must be compatible with free will."

The objections to Strawson are obvious: (1) Whether or not someone is free is a matter of fact, not dependent upon the moral reactions (*i.e.,* judgments of other people). An agent would not cease to be free if the moral community did not react to him. (2) Ceasing to morally react to people upon the discovery that determinism is true is not psychologically impossible; after all we do not view one who is brainwashed as morally responsible and a discovery of the truth of determinism might force us to conclude that we are all "brainwashed" by past facts.

Wallace (1994) develops Strawson's theory to avoid such objections, but essentially develops an account of free action and morally responsibility very similar to Fisher & Ravizza, and is thus subject to the same objections. But not all hope is lost; the above objections are not necessarily detrimental to Strawson's theory. They simply identify the bullets one must bite if one wishes to be a Strawsonian compatibilist: one must accept that free will is a function of the moral reaction of the moral community (and not a state of a person) and that the moral community would

continue to have such reactions, even in the face of determinism. This is not something I accept, but it is a bullet that one might bite. [26]

**6:2.2.2 – Incompatibilist Definitions**

An incompatibilist definition of free will is one which entails that free will is not compatible with determinism. These are often preferred because of the seemingly straight forward "fact" that determinism is incompatible with free will. After all, if the world is deterministic, past facts are the ultimate cause of our actions, not us—how could we be free if that were the case?

Of course the type 2 PAP that has been used throughout this work (in the fatalist arguments) is a non-compatibilist definition itself. Thus, if a redefinition of free will is to help us make any progress in solving the fatalist dilemma, it will have to be incompatible with type 2 PAP's. Incompatibilist definitions are often developed in light of a rejection of PAP and a motivation to show that a rejection of PAP does not show compatibilism to be true. But often the PAP rejection that motivates the new definition is a rejection of type 1 PAP's, and thus some incompatibilist definitions will not be useful in answering the fatalist arguments of chapter 4 and 5 because they will simply be type 2 PAP's. As we examine these definitions, we must be careful to not accept one that is compatible with the truth of type 2 PAP's; it will not help us avoid the fatalist conclusion as it has been argued to in this work.

**6:2.2.2.1 – Zagzebski**

One of the most intuitive definitions is offered by Linda Zagzebski in her book "The Dilemma of Freedom and Foreknowledge." It comes on page 160 of

[26] Of course, there are more compatibilist theories out there, and much more to be said. For a concise review of compatibilism and the ensuing debate, and a reference guide to its literature, see the afore mentioned McKenna (2004).

chapter 6, as part of the first of two solutions to the dilemma as she presents it. It is her position that type 1 PAP's are false; FCE's show that one can be free even if one is unable to do otherwise. Consequently, she suggests that an act can be accidentally (modally) necessary and still be free, as long as it is not causally necessary. Further, she suggests, if "we can find a clear sense in which my decision occurs independently of God's belief…we can make a case that my action is accidentally necessary* in a literal sense of 'accidental.' It is necessary 'by accident' and free because it would have occurred in the absence of the accident." (p. 158) And our decisions *are* independent of God in this way, given that we would have made the same decision even if God were not omniscient (and did not have fore-belief) or had not existed at all. Thus she offers the following definition of free choice:

> A choice is free if and only if a) it could have not occurred even if the causal history of that choice had been identical to the one that actually obtains and b) it would still have occurred even if non-casually necessitating factors had not obtained.

Although a) and b) seem to express necessary conditions of free will, this definition seems to be another variation of type 2 PAP's—it suggests that free choice requires it *to be possible for the decision to not have occurred*—and thus will not help us avoid the most severe dilemma. Since the definition suggests that it must be true of free actions that they "could have not occurred," but the now-actuality of the future entails that an agent's future action must occur—even if they are not causally

determined and would have still occurred in the absence of God's fore-beliefs about them—this definition will not allow us to avoid the fatalist conclusion. In other words, even if we substitute Zagzebski's definition for PAPΛ (in the Actualizability Logical Fatalist argument) the fatalist conclusion will still follow.

However, to utilize this definition as a solution, one might simply revise the definition as follows:

> A choice is free if and only if a) the causal history of that choice does not determine that it occur and b) it would still have occurred even if non-casually necessitating factors had not obtained.

This definition (1) is true to the spirit of the Zagzebski's original definition and intentions as I understand them (2) is an incompatiblist definition (3) suggests that a free decision can be accidentally necessary and thus (4) would allow us to avoid the fatalist conclusion. But the details of how choices can be made in this non-deterministic way still need to be worked out. This is one thing that the incompatibilist views which we are about to consider do; so let us turn to them now.

**6:2.2.2.2 – Event Causation**

As Clarke (2005) suggests "The simplest event-causal incompatibilist view takes the requirements of a good compatibilist account and adds that certain agent-involving events that cause the action must nondeterministically cause it." (Section 2) Essentially, one can generally understand event causation accounts as accounts which admit that an agent's actions are rooted in the psychology of the agent, but claim that

the part/mechanism of the agent's psychology in which the action is rooted has been (somehow) indeterministicly produced.

Mele (1995) suggest that a deliberative process—in which the agent considers reasons for and against a certain action—(often) precedes and deterministically determines a decision, which in turn deterministically brings about an action. That deliberative process being subject to indeterminism (*e.g.,* it being indeterminate what reasons will be considered during the process) is what is required for an action to be free. In Ekstrom's (2000) account, preferences take the place of deliberative processes and those preferences must be indeterministicly acquired if the agent is to be free.

The reader may be tempted to object right off the bat: *Event causation accounts will be of no help! The requirement of indeterminism requires it to be possible (actualizable) for actions other than the one performed to occur. And thus, free action, on the event causation account, requires alternate possibilities and is thus compatible with the truth of type 2 (and in fact type 1) PAP's.* If this is true, it would mean that event causal accounts would not function as solutions to the fatalist dilemma presented in this work. However, it must be realized that indeterminism is interjected into the theory to avoid compatibility with causal determinism, and thus the indeterminism utilized is causal as well. What event causation requires is that the psychological elements/mechanisms (in which the action is rooted) not be produced in a causally deterministic way. This can be accomplished, even if it is not possible (actualizable) for any other psychological element/mechanism to be produced because of other (non-causal) necessitating factors (such as God's past beliefs or the

now-actuality of the future). Thus event causation can be true, while both types of PAP are false. Thus, if true, event causation accounts of free will could serve as a solution to the fatalist dilemma as it is presented.

One more telling objection to the above views is that, in event causation accounts, agents seem to lack an "ultimate responsibility" for their action. The action performed is ultimately rooted in an indeterministic process, and thus it does not seem that the action was *up to the agent* at all. If the agent does that which is good, it will be the result of (what many have called) "moral luck."

Kane (1996) develops his view in an attempt to avoid this objection and argues that a free decision or action is one for which the agent is ultimately responsible. As I summarize Kane:

> When an agent is forced to make a moral decision, there is motivational conflict within the agent. The agent makes an effort to do the right thing, but the strength of that effort (and thus its success) is causally indeterministic. However, whatever is done is a free action for which the agent is ultimately responsible. This action is also a self-forming action (or self-forming willing) with which the agent has modified his/her character. A character can be developed by a collection of such actions, and any action that is causally determined by that character is also a free action. [There are also similar ways to develop one's character with other such self-forming actions (*i.e.,* self-forming willings.)]

If Kane's theory works, it looks like we have a perfectly good way to avoid the fatalist conclusion. Our actions/decisions can be unavoidable (*i.e.,* their non-occurrence can be non-actualizable) and yet be the result of the causally indeterministic process described above and thus still be free.

However, the main objection to Kane is quite harsh, and hard to avoid. It seems that the outcome of such self-forming actions are not up to the agent at all—the outcome of the effort is outside of the agent's control—and thus agents are not ultimately responsible as Kane wants them to be. The result of the effort is not decided by the agent, but decided at random (indeterministicly), and the agent will simply be lucky if the strength of the effort is sufficient to bring about a morally good action. Thus again, the "moral luck" objection rears it head.

Of course Kane responds to such objections by further developing his theory (*e.g.,* 1996, 2002c, 2004), but I am highly doubtful of their success. No matter how any event causation theory is revised, it will still suggest that some kind of indeterministic process is involved in bringing about actions and thus actions will ultimately be rooted in that indeterministic process. Consequently, all event causation theories seem to be subject to the same "moral luck" objection. Of course, if one wishes to bite the moral luck bullet—and suggest that morally lucky actions are free—then one has a clear way out of the fatalist conclusion. I however, once again, am not willing to bite.

**6:2.2.2.3 – Agent Causation**

Agent causation theories are, for my money, the best way out of avoiding the fatalist problem if one desires to go about doing so by denying PAP—but they are still not perfect. Agent causation theories suggest that an action/decision is free if that action/decision is causally rooted—ultimately—in the agent him/herself; *i.e.,* the agent must be the ultimate cause of the action if it is to be free. The agent is such an ultimate cause only if the agent is not causally determined by any outside forces to

perform that action. But, on the agent causation theory, there is no danger of agents being subjected to this causal influence. To cause the actions herself, the agent must be an enduring substance; consequently agents are not the kinds of things that can be affected by (in that they are controlled by) a causally deterministic process. (Of course deterministic processes can affect an agent by producing life experiences in the agent; the agent simply cannot be controlled by them.) Chisholm (1966, 1976), Taylor (1992), and O'Connor (2000) all defend an agent causation view.

Agent causation functions as a solution to the fatalist dilemma presented in this work because it is not required of an agent to be able to not cause the actions she will cause, in order for her to be the ultimate cause of her actions. An agents can still be the ultimate cause of her action, even if her causing that action is necessitated by non causal factors (such as the now actuality of the future).

One objection to agent causation that comes to mind initially is the following: *Given that we know how the brain works, we know that when an action takes place, it is because of the activity in the brain. Thus if the agent is said to be the ultimate cause of actions, the agent must do so by causing some kind of activity in the brain. However, no agent "knows" how to do that; agents do not know what part of the brain to make active to bring about the actions they desire; and even if they did they would not know how to activate that part of the brain by sheer will.* However Chisholm (1966) in his breakthrough article "Freedom and Action" brilliantly answers this objection. He draws the distinction between intentional and non-intentional causation and observes that an agent can intentionally cause his/her arm to

move, and in the process unintentionally activate his/her brain in the right kind of way to bring about that action. In this way, this objection can be avoided.

Of course, this is likely to raise another objection. An agent being "a substance" and causing brain events in this kind of way makes an agent seem very much like a Cartesian-like mind/soul substance, and the problem of downward causation quickly emerges. But a Chisholm-like answer might be to suggest that the problem of downward causation is not a special one. Hume's problem of causation was never solved, and what differs "a causes b" from "a and b continually occur sequentially" is not known. Consequently, we do not know how physical events cause other physical events any more than we know how mental events cause physical events; but we simply deduce causation from constant conjunction. Thus, the decisions of an agent continually occurring sequentially with the brain events that bring about the agents actions is enough to justifiably deduce that they are causally related (if causation is ever justifiably deduced in any situation). There is nothing else that needs to be said as an explanation for downwards causation, if nothing else needs to be said about physical causation.

However, this answer may give rise to yet another objection. *If it is the decisions of agents that are thought to be the causes of agents' actions, it does not seem as though agents are the causes of their actions at all; it is events within agents (agents taking on certain psychological properties—like the property of making a decision) that are doing the causal work. If that is the case, it does not seem as though agent causation is any different than event causation.* It is true that, to be different than event causation, agent causation will have to have the agent

him/herself—the substance that is the agent—be the ultimate cause of the action. But the agent causation defender should be able to easily do this by suggesting that the agent is the ultimate cause either by directly being the ultimate cause of the event of the physical action, or by being the ultimate cause of the event of the agent taking on certain mental properties.

However another objection emerges as a result of this, because it is unclear whether substances (such as agents) can cause events (*i.e.,* have effects). Effects are *happenings*, occurring at specific moments in time, and likewise too are causes *happenings*. The cause of an effect cannot exist for a long period of time without causing the effect, and then suddenly cause the effect for no reason. (In other words, a cause cannot exist without immediately causing its effect). When an effect occurs, it is because its cause just occurred. But substances endure over time, they are not suddenly occurring happenings, and thus cannot have effects. Likewise, undetermined causes raise the probability of their effects occurring; but only something that occurs at a specific moment in time can raise probabilities in this way. Substances, which endure over time, cannot. [If a substance were an indeterministic cause, the probability of its effects would increase at the moment of its conception, and stay increased until the effect occurred (and thus go to a probability of "1") or until the existence of the substance becomes a part of the past (*i.e.,* it ceases to obtain and thus goes to a probability of "0." But causes do not work like this; they increase the probability of their effect right before they occur]. In short, events can only be caused by other events; substances are not events, and thus cannot cause events.

Of course, one might take Taylor's view (1992, p 53) and simply ascribe to agent causation, but admit it is a mystery. I am inclined to think that some sense can be made of the notion "substances (such as agents) as causes." But I will not defend this claim here. Even if a coherent account of substance causation can be given (or just accepted on faith), the theory of agent causation is not yet saved.

The problem of moral luck haunts the agent causation theory as well. As van Inwagen (2000) argues, free will—even though it clearly is incompatible with determinism—is also incompatible with indeterminism. In terms of moral luck, van Inwagen's argument can be summarized as follows:

> Suppose some agent is presented with a moral choice between A and ~A. Suppose also that A is the right thing to do and that the agent agent-causes A. Given that (on the theory) it truly is undetermined what an agent will do, up until the time the agent performs the action, then if one were to "recreate the universe" and run it again (and everything up to the decision happened in exactly the same way), the agent might or might not agent-cause A during the "replay" (*i.e.,* if the result of the action is truly undetermined, when one recreates the universe, the actual future of that universe may or may not contain the event of the agent agent-causing A). Continue to replay the universe, and the agent is bound to not choose A during some replay. (One recreation is bound to possess an alternate future.) In fact—given that the action is truly undetermined—continue to do this indefinitely and you will get a random pattern of "agent-caused A's" and "agent caused ~A's." But if the pattern is random, each occurrence of the agent agent-causing A is random and each occurrence of the agent agent-causing ~A is random as well, and thus the first occurrence of the agent agent-causing A was too—and it was just a matter of moral luck that he did the right thing the first time around. It follows that, for any given agent-caused action (even if there are no replays), it is random; if it happens to be that the agent agent-caused the "morally right thing" it will just be a matter of moral luck that the agent agent-caused the right thing. (One might say that it was just a case of moral luck that the agent caused the right thing "the first time around.")

Thus, it seems that indeterminism is just as incompatible with free will as determinism is. If what you agent cause is truly undetermined, then what you agent-cause is "up to chance" and not up to you. Free will, so says van Inwagen, "remains a mystery."

It still seems that, if one wishes to give up PAP, agent causation is the way to go. But, to do this successfully, clearly much more work has to be done. It is for this reason that I favor giving up bivalence as a solution to the fatalist arguments presented in this work.

#### 6:2.2.3 – One Last Note on Giving up PAP

PAP entails that, unlike the past, the future must be "open" if we are to be free. Thus, according to PAP, if we are free, there is a temporal asymmetry: the past and the future differ in a fundamental way. However, giving up PAP, accepting one of the above views, and thus accepting that the future is just as "closed" as the past, forces one to abandon that asymmetry.

But abandoning that asymmetry might not be so simple. Granted, PAP being true, along with our free will, entails a temporal asymmetry, but one might think that we do not accept a temporal asymmetry *because* we accept PAP and our own freedom. One might think that an asymmetric relationship is simply the relationship we intuitively ascribe to the past and the future, regardless of what we think about the truth of PAP or our own free will.

Consequently, in accepting this solution, there is more at stake than simply rejecting the highly intuitive PAP; this solution will also require one to abandon temporal asymmetry. A person who thinks that this asymmetry is fundamental is confronted with more than the fatalist dilemma. She is confronted with a

fundamental incompatibility between another set of her core beliefs: an incompatibly between a belief in temporal asymmetry and a belief in bivalence. (This is because bivalence entails that the future is just as actual and thus "closed" as the past, and the temporal asymmetry denies this). Obviously giving up PAP will do nothing to alleviate this incompatibility, and the only open solution for such a person (short of giving up the temporal asymmetry) will be to abandon bivalence.

This is yet another mark in the favor of giving up bivalence.

### 6:3 – Presentism and/or a Denial of LCTT

In chapter 4, I gave a promissory note: after my main argument was complete, I was to explore two possibilities: (1) the possibility that a presentist ontology could provide truthmakers for future and past tensed propositions and (2) the possibility that the propositions used in the fatalist arguments do not require truthmakers (*i.e.,* the possibilities of the falsity of LCTT). Now that my main argument is complete, I will turn to these possibilities.

#### 6:3.1 – Presentism

Almost all presentists take LCTT seriously; they recognize the need for their ontology to provide truthmakers for true future and past tensed propositions and develop their theories accordingly. (Any theory that fails to do so is usually considered to succumb to the same objections that plagued the founder of presentism (A. N. Prior) and his followers (Oaklander (2004) p.105)) A presentist ontology that ignores this need and only includes the physical objects of the present moment (what

Dainton (2001) calls Solipsistic presentism) is almost unheard of and is usually quickly rejected.[27]

Presentist theories whose ontologies are developed with LCTT in mind are such theories as (what Dainton calls) many-worlds presentism, dynamic presentism, compound presentism, (what Parsons (2004) would call) ersatzist presentism, and Craig's presentism (Craig 2000a, 2000b, and 2001). Although they (sometimes) differ in their details (some could probably be described as sub-sets of others), the basic approach of each is the same; they provide truthmakers for future and past tensed propositions with presently existing abstract objects.

For example, Craig essentially treats future and past "times" as *momentary possible worlds*—possible worlds that are "time slices," *i.e.,* how the world is during a single moment in time—and calls them "tensed worlds." He suggests that there is such a tensed world for every way the world has been and will be.[28] Such tensed worlds are abstract objects which could, if placed in the present, serve as truthmakers for future and past tensed propositions without violating the boundaries of a presentist ontology.[29] Such ontologies—if coherent and defensible—provide the needed

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[27] Dainton (2001) calls one such variety of presentism "solipsistic presentism" and pretty much dismisses it outright (p. 82).

[28] Of course the present moment is also a tensed world, but it has a status that all the others lack; it is not abstract.

[29] It is unclear whether or not Craig actually uses these "tensed worlds" as truthmakers (or if he even thinks they exist in the present moment). Clearly, according to Craig, they are involved in the truth-conditions for future and past tensed propositions, but for some reason Craig wishes to simply suggest that "what makes" such propositions true is "that reality *was* or *will be* as the statements describe." (Oaklander (2004), quoting Craig, p. 104). But given that he already has tensed worlds in his ontology, I don't fully understand why he simply doesn't "use them" as truthmakers. Oaklander might have an answer for this. He argues that "On the one hand, Craig wants there to presently exist truthmakers for past- and future-tense statements. If a statement is true now, then it must be true in virtue of some fact that exists now. On the other hand, he does not want to countenance past and future existents." Presumably Craig would not be happy with such existents, even if they existed in the present, and this is why he doesn't want "tensed worlds" to serve as truthmakers. But if this is the case, I don't know how Craig can make sense of his own theory. If he wants truthmakers for future

truthmakers but do not violate presentist commitments. And as I understand it, this is the standard move for most presentists; the disagreement between presentists is on how to spell out the details of these abstract objects.

Given what he says about Craig's theory, Oklander would suggest that all such theories *smell like* (to use a Swoyerism) A-theories of time and are thus subject to McTaggart's paradox (which would be to suggest that all "time slices" in the ontology simultaneously have the property *past*, *present*, and *future*). Crisp (2004) convincingly argues that Oaklander is mistaken, and that such presentist theories are not subject to McTaggart's paradox; and I tend to agree. It seems that sense could be made out of a presentist theory that provides truthmakers for future and past tensed propositions (with abstract objects of some kind) but stays within the ontological limits of presentism by "placing" those abstract objects in the present. Such a view would suggest that reality consists of a collection of "ordered tensed worlds," each world occurring (becoming non-abstract) for a brief moment, one after the other as

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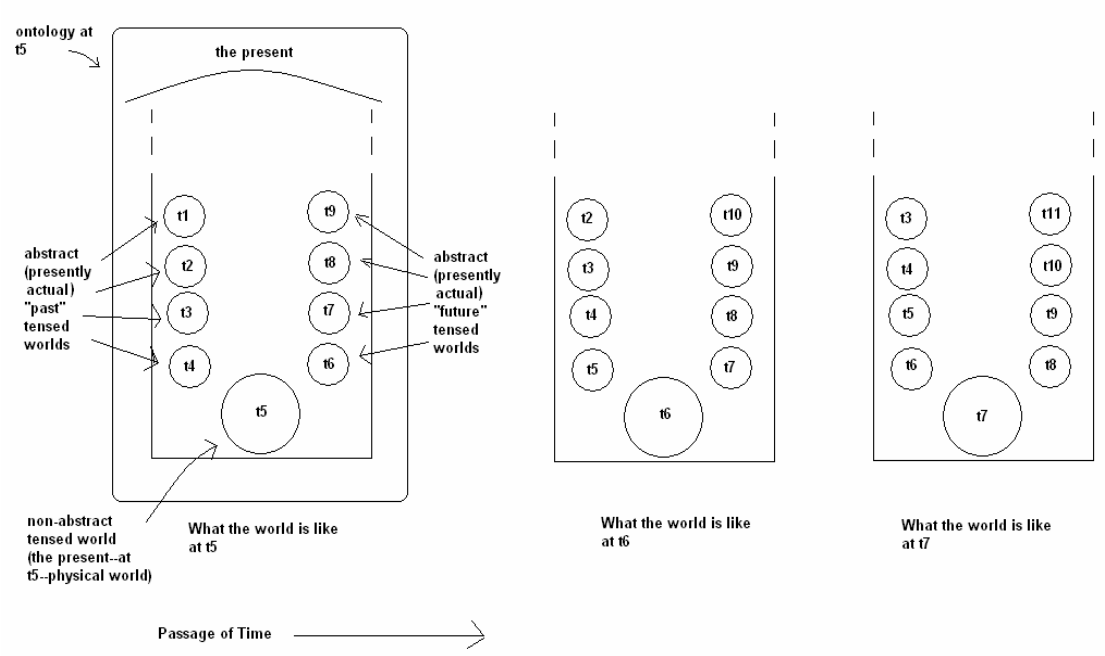
and past statements, and wants these "tensed worlds" to involved in the truth-conditions for statements, he will need these "tensed worlds" to *be somewhere*; but since he is already unwilling to place them in the past and future (or even the timeless realm) given that he is a presentist, if he is also unwilling to place them in the present, I don't know where else he can put them! He can't have it both ways. They are either in the present doing the work he needs them to do (and thus he is committed to presently existing past and future existents), or they are not and he lacks the ontology he needs.

Oklander seems to recognize this problem himself. He says essentially the same thing and adds "[Craig] attempts to avoid the contradiction that a conjunction of those two views entails by claiming that past- and future-tense facts exist at present, but they are not ultimate. However his attempt to show that past- and future-tense facts are not ultimate is either unsuccessful [because it fails to produce the needed ontology] or it succeeds only at the cost of reintroducing a B-theoretic ontology that he sought to avoid thus undermining presentism." (p. 105, bracketed material added). But I fail to see why Craig (and Oaklander) views a B-theoretic ontology necessarily contrary to presentism; as long as that ontology's constituents exist in the present, there seems to be no problem. And this seems to be the move that most other presentists make. Placing the needed truthmakers in the present is what I consider the "standard move" by the most viable presentist theories, and thus this is the move I consider in the main text.

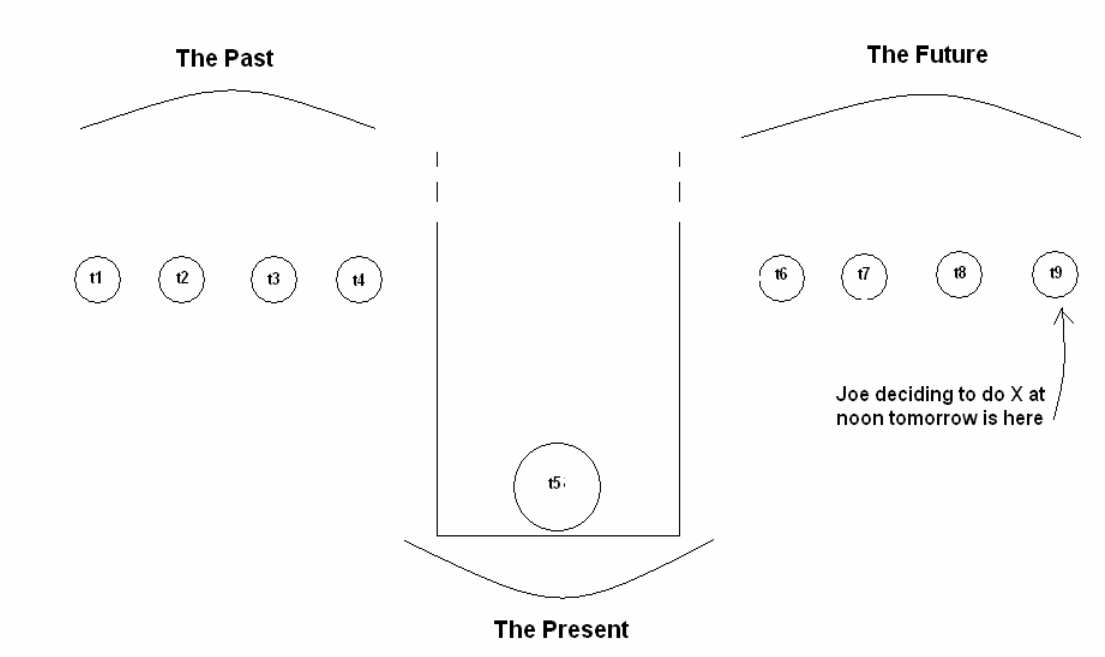
Of course, Oaklander thinks there are other problems with a B-theoretic ontology, but I will mention them in the main text.

time progresses. Each world would be always actual but not occurring in the present moment unless it was physical world of the present moment. Such a theory could be represented pictorially as:

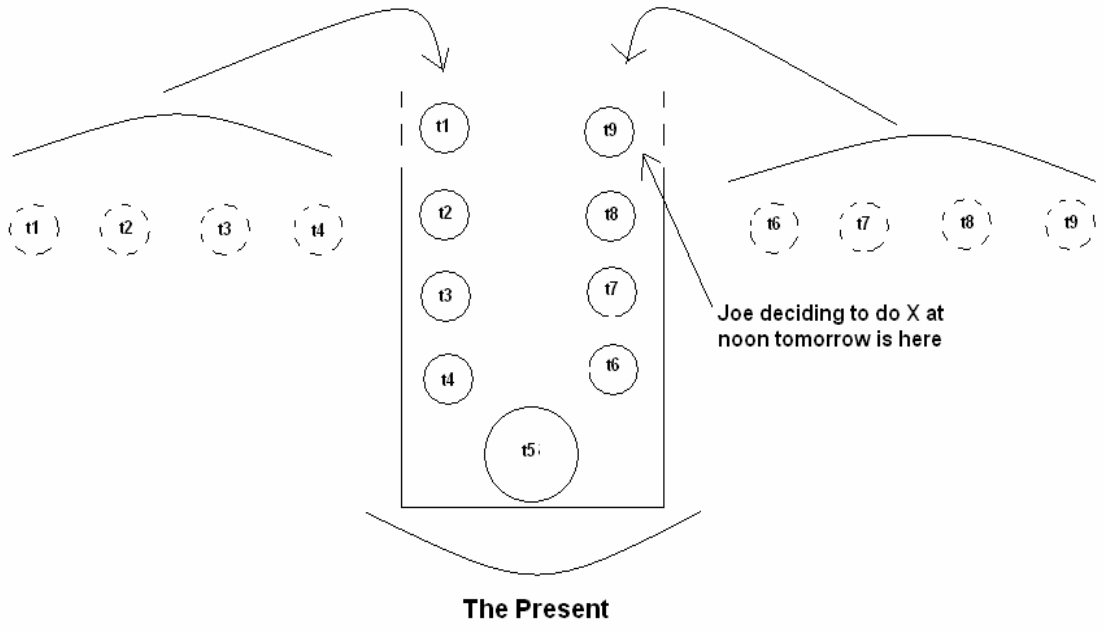



Notice however that such a theory will not be useful in avoiding the fatalist conclusion as it has been argued to in this work. Here is why:

Recall that what makes Joe un-free is the now-actuality of the decision that he will make; the now actuality of the state of affairs that is Joe's "future" decision is what makes Joe not deciding as he will not now-actualizable for Joe. We have been calling and assuming that the temporal location of that truthmaker, and all others like it, is "the future." One might represent this assumption pictorially as:




But if we want to be a presentist and move those truthmaker into the present, this will not make those truthmakers any less now-actual and thus it will not make their non-occurrence any more actualizable. In other words, we can take all the future and past existents of the omnitemporalist ontology and "move them" into the present if we want…



...and if we do we can be presentist, but this will not help us avoid the fatalist conclusion. Even in such a presentist ontology, Joe not deciding as he will stands in contradiction with something now-actual. The simple difference with the presentist ontology (compared to the omnitemporal ontology) is just that the now-actual thing with which it does stand in contradiction is not a future state of affairs but a presently existing "abstract object."

Thus, even the best working forms of presentism do not provide a solution to the fatalist dilemma. And in fact, any theory that provides truthmakers for such propositions will generate the fatalist dilemma; as long as truthmakers for future tensed propositions about human decision are actual—no matter where or when they are—they will stand in contradiction with not deciding as we will and human freedom will be non-existent.

### 6:3.2 – A Rejection of LCTT

Many might suggest that the presentist theory articulated above is not a presentist theory at all; even though all its existents are in the present, its ontology is too bloated for a presentist theory. One might argue: *The entire point of developing a presentist theory is to not include future and past times in your ontology; even if all of your ontology is in the present, if it includes past and future times, it is not a presentist theory.*

Those who raise such objections probably favor giving up the need for truthmakers, at least in some cases. I will first discuss those who reject the need for future truth truthmakers, and then those who reject the need for past and future truth truthmakers.

#### 6:3.2.1 – Rejecting the Need for Future Truthmakers

If one holds that propositions about the future do not need truthmakers—that they are not true in virtue of correspondence—one need not postulate the now actuality of the future to account for the truth of such propositions. Consequently, in this way, one could avoid being forced to the fatalist conclusion by the logical fatalist argument of chapter 5, and the most severe dilemma is avoided.

One doing this might make the mistake of suggesting, like Ockham, that propositions about the future are true because their truthmakers will be (but are not now) actual. This would be a mistake because the proposition that expresses the fact that the truthmaker will be actual is a proposition about the future as well. The truth of this proposition either (a) will also be explained by the truth of another proposition about the future and an infinite regress will emerge or (b) is just the truth of the original proposition and thus its truth is no explanation at all.

It seems that if one does holds to prior truth, but gives up the explanatory power of truthmakers for prior truths (by suggesting that they are not necessary) the truth of propositions about the future must simply be a brute, unexplained, fact.[30] I, of course, think that truthmakers for future tensed propositions are needed, but if one rejects this, the fatalist conclusion forced by the logical fatalist argument and the most severe dilemma of chapter five can be avoided.

However, giving up only the need for future truthmakers will not allow one to avoid the theological fatalist argument. What one might do to avoid the theological

[30] In fact, if this theory is to not violate the principle of sufficient reason, future truth must not only be unexplained, but unexplainable.

fatalist argument of chapter four is demand that the absence of truthmakers for prior truths makes TNPΛ invalid. One might argue:

> "Even if ΛΩ and Λ(Ω⊃Γ) are true—*i.e.,* both Ω and (Ω⊃Γ) are true and their truthmakers are actual—if Γ is a proposition about the future, ΛΩ and Λ(Ω⊃Γ) will not entail ΛΓ. Even thought Γ is true, Γ's truthmaker will not be actual because it is a proposition about the future, and such propositions do not require truthmakers when true."

However, this will not be successful in helping one avoid the theological argument. Quite simply, one who takes the position of this section and gives up the need for future truthmakers does not give up the need for past truthmakers. Consequently, God's past infallible beliefs about the future are still now-actual, and thus Joe not deciding at noon to perform action X still stands in contradiction with (is mutually exclusive with) something that is now actual: God's past infallible beliefs. Thus, even in the absence of future truthmakers, Joe's not deciding as he will is not now-actualizable for Joe, and thus he is not free.[31]

#### 6:3.2.2 – Future and Past Truth without Truthmakers

A rejection of the need for past and future truthmakers will allow one to defend the highly objectionable and problematic theory of solipsistic presentism. One

[31] Some may take theological fatalism to simply amount only to the argument of the above paragraph. They might suggest "Joe can't refrain because his refraining stands in contradiction with God's past belief, end of story. There is no need to superimpose truthmakers and the now-actual future; prior truths are just unexplained brute facts; they have no ontological status and they do not commit us to the now actuality of the future. It is God's prior infallible beliefs of those truths that stand in contradiction with Joe's refraining, and that is what makes his refraining seem un-actualizable." I find it interesting to note that, one who takes the problem to amount to only this has a very medieval view of God's omniscience. On such a view, God is not omniscient because he observes the world. He clearly does not know future truths by observing the world; observation of the future is impossible since it is not now-actual. God seems to simply assent to these "unexplained truths" automatically—just in virtue of being God—and there is no explanation beyond that. This seems to me to be fairly similar to Aquinas's doctrine of omniscience: Truths are simply contained within God; and since God knows all of (but only) himself, he knows these truths in virtue of an observation of himself.

defending such a view will not be persuaded by the standard objections to solipsistic presentism because they will not feel the need for past and future truthmakers. One who could successfully defend such a theory could avoid the fatalist conclusion altogether, without having to abandon prior truth or PAP. But I maintain that solipsistic presentism is problematic for reasons beyond the need for truthmakers.

In a nutshell, the problem with solipsistic presentism is this: with nothing but the present in one's ontology, one cannot supply explanations and/or causes for present facts and the present is thus entirely uncaused and explained. Causation and explanation are two place relations, existing between two events; but if nothing exists but that which is present, there is (there exists) no cause/explanation for most (if not all) present events/states of affairs. A cause can exist without an effect; the moment the cause happens is a moment in which this is the case. But effects cannot exist without their causes, and yet solipsistic presentism suggests that they do; the present exists, but its cause (the past) does not. In the solipsistic presentist ontology, the past does not exist to serve as the explanation/cause of present facts and the world is entirely unexplained. As Dainton writes:

> The big bang theory of the origin of the universe, coupled with the theory of natural selection, explains why the world is as it is: how the current complexity developed from initial simplicity. There is still a lot that is mysterious—we do not know why the big bang occurred, why the initial energy existed, why the laws of nature are as they are—but there is a good deal that is explained. By contrast, the doctrine that the universe consists of a single brief slice of highly organized reality…explains nothing and leaves everything mysterious. (p. 82).

For this reason I conclude that a theory that denies the need for future and past truthmakers (which essentially amounts to solipsistic presentism) is indefensible, and not a legitimate way out of the fatalist conclusion.

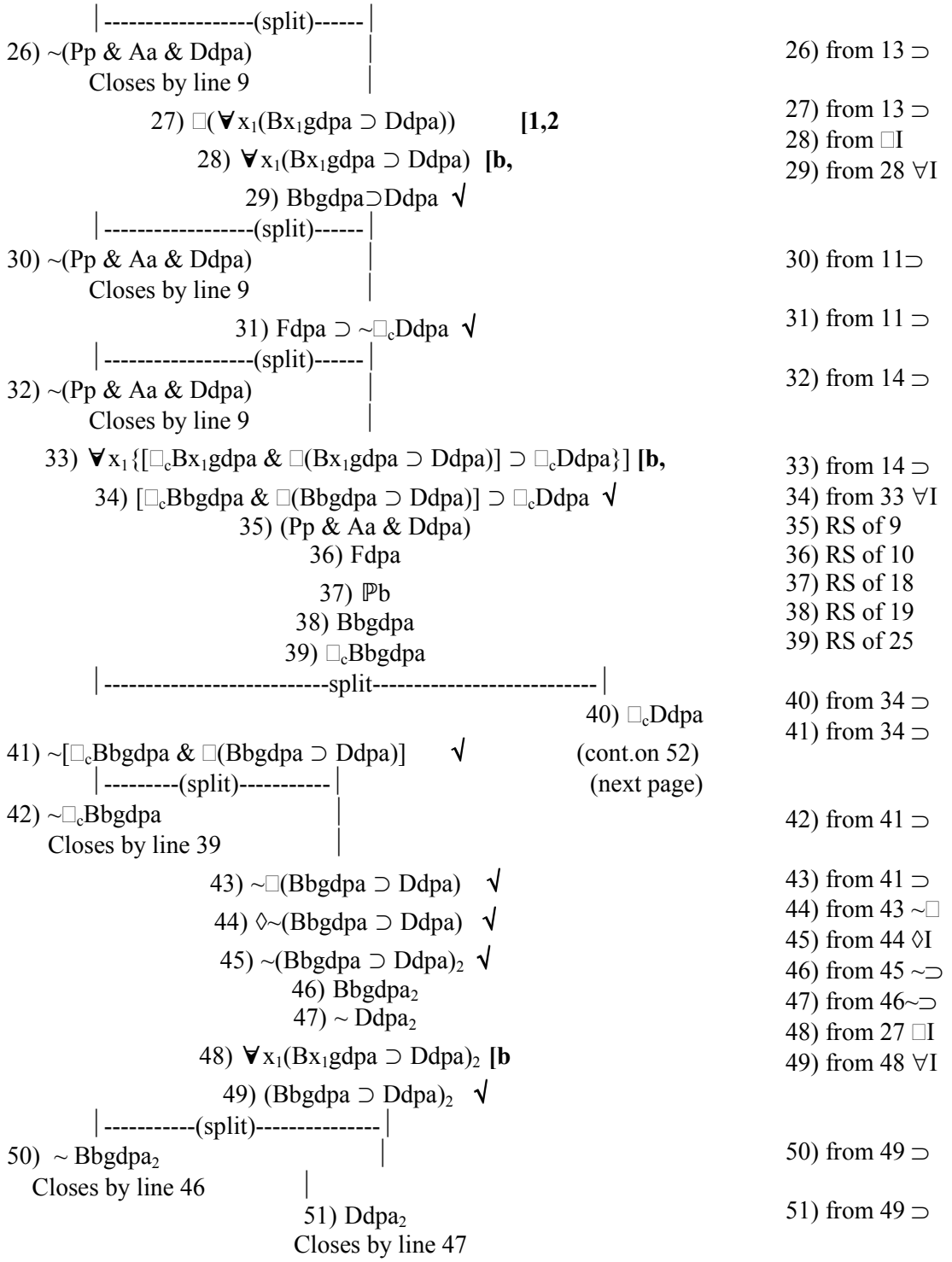
### 6:4 – Conclusion

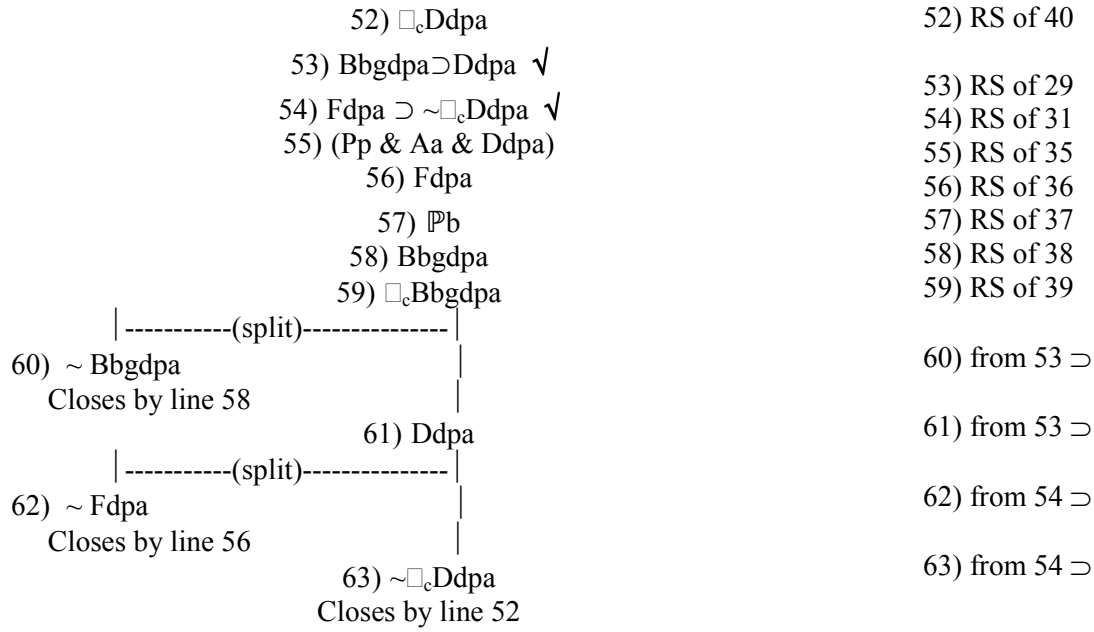
In this dissertation, I have argued that we have been incorrectly understanding the theological and logical fatalist arguments for a very long time. The way to understand them is this: logical and theological facts commit us to a temporal ontology that is incompatible with free will. By the Principle of Alternate Possibilities, if our future actions are to be free, the future cannot be already actual (already written). But if God has foreknowledge of the future and/or there are prior truths about the future, the future must be already actual; it must be now-actual so that it can be the truthmaker for the propositions that are true/believed by God. The only way to avoid the fatalist conclusion is to either (a) suggest that an already written future is compatible with free will (*i.e.,* deny PAP) or (b) suggest that there is no prior truth (thus denying bivalence, and the possibility of foreknowledge, but saving the possibility of God's omniscience). I have argued that (b) is the more defensible of the two options, but pointed out that there are bullets to be bitten in either case.

**Appendix 1**

The tree:(for all lines, assume it is true in world$_1$, unless otherwise stated)

| | |
|---|---|
| 1) ∀xyz (Px & Ay & Dzxy) ⊃ (Fzxy ⊃ ~□$_c$Dzxy) **[dpa**, | 1) Assumption |
| 2) ∀x [ℙx ⊃ ∀X(Xx⊃ □$_c$Xx)] **[b,** | 2) Assumption |
| 3) ∀xyz [(Px & Ay & Dzxy) ⊃ ∃x$_1$(ℙx$_1$ & Bx$_1$gzxy)] **[dpa**, | 3) Assumption |
| 4) ∀xyz [(Px & Ay & Dzxy) ⊃ □(∀x$_1$(Bx$_1$gzxy ⊃ Dzxy))] **[dpa,** | 4) Assumption |
| 5) ∀xyz [(Px & Ay & Dzxy) ⊃ ∀x$_1${[□$_c$Bx$_1$gzxy & □(Bx$_1$gzxy ⊃ Dzxy)] ⊃ □$_c$Dzxy}] **[dpa,** | 5) Assumption |
| 6) ~∀xyz [(Px & Ay & Dzxy) ⊃ ~Fzxy] √ | 6) ~ concl |
| 7) ∃xyz ~[(Px & Ay & Dzxy) ⊃ ~Fzxy] √ | 7) from 6 ~∀ |
| 8) ~[(Pp & Aa & Ddpa) ⊃ ~Fdpa] √ | 8) from 7 ∃I |
| 9) (Pp & Aa & Ddpa) | 9) from 8 ~⊃ |
| 10) Fdpa | 10) from 8 ~⊃ |
| 11) (Pp & Aa & Ddpa) ⊃ (Fdpa ⊃ ~□$_c$Ddpa) √ | 11) from 1 ∀I |
| 12) (Pp & Aa & Ddpa) ⊃ ∃x$_1$(ℙx$_1$ & Bx$_1$gdpa) √ | 12) from 3 ∀I |
| 13) (Pp & Aa & Ddpa) ⊃ □(∀x$_1$Bx$_1$gdpa ⊃ Ddpa) √ | 13) from 4 ∀I |
| 14) (Pp & Aa & Ddpa) ⊃ ∀x$_1${[□$_c$Bx$_1$gdpa & □(Bx$_1$gdpa ⊃ Ddpa)] ⊃ □$_c$Ddpa}] √ | 14) from 5 ∀I |
| \|----------(split)----------\| | |
| 15) ~(Pp & Aa & Ddpa) \| | 15) from 12 ⊃ |
| Closes by line 9 \| | |
| 16) ∃x$_1$(ℙx$_1$ & Bx$_1$gdpa) √ | 16) from 12 ⊃ |
| 17) ℙb & Bbgdpa √ | 17) from 16 ∃I |
| 18) ℙb | 18) from 17 & |
| 19) Bbgdpa | 19) from 17 & |
| 20) ℙb ⊃ ∀X(Xb⊃ □$_c$Xb) √ | 20) from 2 ∀I |
| \|----------(split)----------\| | |
| 21) ~ℙb \| | 21) from 20 ⊃ |
| Closes by line 18 \| | |
| 22) ∀X(Xb⊃ □$_c$Xb) **[B,** | 22) from 20 ⊃ |
| 23) Bbgdpa ⊃ □$_c$Bbgdpa √ | 23) from 22 ∀I |
| \|----------(split)----------\| | |
| 24) ~Bbgdpa \| | 24) from 23 ⊃ |
| Closes by line 19 \| | |
| 25) □$_c$Bbgdpa | 25) from 23 ⊃ |


|----------(split)------|
26) ~(Pp & Aa & Ddpa) |
Closes by line 9 |
27) □(∀x1(Bx1gdpa ⊃ Ddpa)) [1,2
28) ∀x1(Bx1gdpa ⊃ Ddpa) [b,
29) Bbgdpa⊃Ddpa √
|----------(split)------|
30) ~(Pp & Aa & Ddpa) |
Closes by line 9 |
31) Fdpa ⊃ ~□cDdpa √
|----------(split)------|
32) ~(Pp & Aa & Ddpa) |
Closes by line 9 |
33) ∀x1{[□cBx1gdpa & □(Bx1gdpa ⊃ Ddpa)] ⊃ □cDdpa} [b,
34) [□cBbgdpa & □(Bbgdpa ⊃ Ddpa)] ⊃ □cDdpa √
35) (Pp & Aa & Ddpa)
36) Fdpa
37) ℙb
38) Bbgdpa
39) □cBbgdpa
|----------split----------|
40) □cDdpa
41) ~[□cBbgdpa & □(Bbgdpa ⊃ Ddpa)] √ (cont.on 52)
|---------(split)----------| (next page)
42) ~□cBbgdpa |
Closes by line 39 |
43) ~□(Bbgdpa ⊃ Ddpa) √
44) ◊~(Bbgdpa ⊃ Ddpa) √
45) ~(Bbgdpa ⊃ Ddpa)2 √
46) Bbgdpa2
47) ~ Ddpa2
48) ∀x1(Bx1gdpa ⊃ Ddpa)2 [b
49) (Bbgdpa ⊃ Ddpa)2 √
|----------(split)----------|
50) ~ Bbgdpa2 |
Closes by line 46 |
51) Ddpa2
Closes by line 47
26) from 13 ⊃
27) from 13 ⊃
28) from □I
29) from 28 ∀I
30) from 11⊃
31) from 11 ⊃
32) from 14 ⊃
33) from 14 ⊃
34) from 33 ∀I
35) RS of 9
36) RS of 10
37) RS of 18
38) RS of 19
39) RS of 25
40) from 34 ⊃
41) from 34 ⊃
42) from 41 ⊃
43) from 41 ⊃
44) from 43 ~□
45) from 44 ◊I
46) from 45 ~⊃
47) from 46~⊃
48) from 27 □I
49) from 48 ∀I
50) from 49 ⊃
51) from 49 ⊃




All branches close with negated conclusion,
original argument is valid.

**Divine Omniscience and the Fatalism Dilemma**
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