Molinism's Self-Undermining Problem

November 22, 2015

Abstract

Molinists offer a tempting bargain: accept divine middle knowledge, and reap solutions to a number of philosophical/theological problems. The prime benefit we are meant to reap from middle knowledge is a solution to the problem of freedom and providence. I argue that they cannot deliver. Even if we make metaphysical and semantic assumptions that have generally been considered friendly to Molinism, Molinism is in danger of undermining divine providence altogether. This "collapse" follows from fairly uncontroversial assumptions, and plagues the best Molinist theories defended in the literature.

1 Introduction

Molinist philosophers and theologians claim to have a fruitful theory. If we accept the theory of divine 'middle knowledge,' we can reconcile libertarian freedom, divine foreknowledge, and a robust theory of providence, and perhaps find tools to help analyze salvation, the problem of evil, and other salient theological notions. A number of challenges have been raised against the coherence of Molinism, but most parties agree: if coherent, Molinism has much to offer contemporary philosophers of religion.

I challenge this consensus. Let Molinism be fully coherent. Consequences of key elements of the view undermine important work to which its partisans put it. My focus here will be on Molinist *concordia* of freedom and providence. The debate around it has produced a vast and complicated literature, which in the name of brevity I will not survey.[1]

My objection in its simplest form is an instance of an old anti-molinist argument: the argument from unacceptable possibilities. In schematic form: molinism entails that possibly P. P is unacceptable. Therefore molinism is. Plantinga considers an early version of this argument when addressing the question: what if the molinist conditionals entailed that God could create only very bad worlds? Molinists have been content to answer: God would sit by Godself, alone in perfection. Another instance appears in Zimmerman's voodoo-worlds objection: what if the molinist conditionals gave God so much control, we could not meaningfully count as free?[2] Here, I ask: what if the molinist conditionals entailed that God only has very few, or very little variety, in the worlds available for creation? I argue (a) that molinism entails this possibility (I situation I call providential collapse), and (b) that the possibility of providential collapse undermines divine *aseity*. An unacceptable result.

In §2, I will briefly sketch Molinism and its solution to the freedom/providence problem. In §3, I will lay out the collapse problem, and then I will consider some potential Molinist fixes, arguing that they are unable to solve the problem. I conclude that even if Molinism is coherent, Molinists cannot deliver on one of their main promises: solving the problem that motivated Molina to posit middle knowledge in the first place.

A note on technical terminology. I will generally use uppercase greek letters such as Γ, Δ, and Υ as sets of propositions. I will generally use the subscript $\vDash$ to denote the deductive closure of a set of propositions (so if Γ stands for a set of propositions, $\Gamma_{\vDash}$ will stand for its deductive closure), and lowercase greek letters such as ϕ, ψ, χ, and ρ as propositional variables (α, β, γ, and δ will retain their usual role as ordinals). Finally, I will often find it convenient to use superscripts to denote special subsets of closed sets of propositions (for instance, if $\Gamma_{\vDash}$ is a set of propositions, I will use $\Gamma_{\vDash}^{>}$ to pick out the subset containing its (non-material, including strict) conditionals).

A note on theological terminology. When I speak of divine creation, I mean something like divine world actualization. Often, talk of creating the world or universe refers to God bringing forth the cosmos. This is not what I mean. When I speak of God creating, I mean that God acts in such a way as to settle which (or which class of) Kripkean possible worlds is (includes) the actual one. Thought of this way, even the classical divine decision 'not to create' is the creation of a world (the one where God is all alone). Likewise, when I speak of constraints on divine providence, I do not mean constraints on divine freedom. This paper has nothing interesting to say about divine freedom (it is compatible with my arguments that God's freedom be compatible with determinism, or incompatible, or whatever else theologians wish to say on the subject).

2 Molinism and the Problem of Providence

Robust views of providence and robust (libertarian) views of human freedom appear to conflict. According to traditional doctrines of providence, God has *foreknowledge* of the world's history, and *control* over that history's development. According to Libertarian theories of free will, true freedom is incompatible with any form of determinism. Thus, we get a *prima facie* puzzle: how is it that God can exercise control over the development of a world's history containing free agents, if any determinism nullifies the agent's freedom?

Much ink has been spilled on this problem. Starting with the 16th century Jesuit theologian Luis de Molina - and recently revived by Alvin Plantinga - Molinism has emerged as one of the main contenders for a solution. Molina's main idea: if God knew what free agents would do in various circumstances, God could arrange for the circumstances to obtain in which the free agents would do as God wanted them to. Thus, by giving God a suite of conditionals - known in the literature as *counterfactuals of freedom* - to guide God's act of creation, Molina hoped to defuse the tension. The term 'counterfactuals of freedom,' while popular, is misleading as a description of the things the Molinist God learns. As Flint makes clear (Flint 1998), they do *not* presuppose free agents, or even agents. The Molinist God needs providence over Radium decay, the collapse of the wave function, and over agents whose choices are directly caused by Radium decay or the collapse of the wave function. It will often be useful to group these conditionals with strict conditionals. I will refer to this

group (strict+subjunctive conditionals) as 'Molinist conditionals' throughout.

To fill out the picture:[3] we can think of God's omniscience as unfolding in four 'moments.' These are understood to represent the priority order of information as it is made available for (and used by) God in creating the world. They are not temporal. We can divide these into pre-volitional and post-volitional moments, with the divine creative act occurring between moments two and three. And we can divide Molinist conditionals into two classes: counterfactuals of divine freedom and counterfactuals of creaturely freedom.

The first moment of God's knowledge we call God's necessary knowledge, and it includes all necessary truths (including such things as the contours of logical space, assuming S5 as the logic governing metaphysical modality). So far, this is in line with the tradition, and accepted by all major views on the providence/freedom/foreknowledge puzzle. It is worth pointing out that amongst the key necessary truths is the divine preference ordering of worlds. We will assume that - like all rational agents - God's mental states conform to a decision theory, and we take worlds (and acts resulting in world-selections) as among the objects of divine preference. Furthermore, since information about divine preferences is clearly pre-volitional information and just as clearly not counterfactuals of creaturely freedom, we put them with God's necessary knowledge. And - although we will not be able to give the issue as full a treatment as it deserves here - we find it bizarre to think that God could have had different preferences than God in fact has, for presumably the contours of logical space do not vary in different possibilities, and so whatever basis God has for God's preferences, God has in every world.

The second moment, Molina's key addition, brings the truth values of all creaturely Molinist conditionals. We will spend a fair amount of time investigating exactly which counterfactuals count as Molinist conditionals, but in general they are instances of the schema 'if S were in C, S would A,' where S is an agent, C is some circumstance, and A is an action. This is, at best, a heuristic device. For present purposes, I will make no substantive assumptions about what these conditionals are like. I will not, for instance, assume that their antecedents imply that determinism is false, or indeed that their antecedents must contain much more information than the tautology (and *a fortiori* any information about the world's laws; it seems perfectly possible to me that a world could have none). Later, I will introduce and defend some minimal assumptions about them.

Molinist conditionals are also contingent - the first contingent truths on the scene. And their truth values are in no way dependent on God. God does not select the truth values, and can do nothing to change them. They simply present themselves to God, bringing information about the actual world. In the process, they create a situation that has been noted by a number of philosophers: there are possible worlds which (in virtue of disagreeing with the Molinist conditionals) are ineligible for creation, and God gets no say which. Plantinga exploited it in his infamous Free Will Defense, (1974) and various Molinist solutions to other problems use it as well. (Craig 1989, Flint 1998) It has also featured in various objections to Molinism, such as Robert Adams's 'grounding objection.' (1977) It will play a key role in the present objection. We will occasionally find it useful to (following Plantinga) refer to the worlds left after the Molinist conditionals have their say as 'feasible' worlds.

God then combines the contingent information revealed in the second moment with the necessary truths to choose the truth values of the counterfactuals of divine freedom. We note the asymmetry here between divine and creaturely freedom. No mere set of condition-

als can dictate what a God would do without that God's say-so. Since choosing the true counterfactuals about divine actions is equivalent to choosing an actual world (by choosing what God would do in the situation God is actually in), God chooses the counterfactuals of divine freedom that result in actualizing the world God most prefers (or one that's good enough, if there is no top world). This marks the third moment, and the first post-volitional one.[4]

Finally, in the fourth moment, God gets the truth value of all other propositions (presumably by applying *modus ponens* to the appropriate counterfactual of divine freedom), in what has often been called God's 'free' knowledge.

So Molinism offers a *concordia* of divine providence and creaturely freedom. It does so by dividing God's knowledge into four moments, and then carefully weaving them around the divine creative act. This way, prior to creation, God has enough contingent information to place agents in circumstances where they will do as God wants. The promise: accept Molinist conditionals, known to God before creating, which narrow the field of possible worlds it is feasible for God to create, accept that these have their truth or falsity independent of and not subject to veto by God, and solve the freedom/foreknowledge/providence puzzle. But can Molinism deliver? As we shall see, if the (deductive closure of the set of) Molinist conditionals that present themselves to God in the second moment is (or could have been) too rich or too anemic, then it cannot.

3 The Self-Undermining Problem

I argue that Molinism leads (or may lead) to a providential collapse. God has no control over which Molinist conditionals obtain. And God has no control over the logical consequences of the set of such counterfactuals. These two fact combine with a few assumptions about those counterfactuals and the logic governing them to create situations that are at best uncomfortable for a robust theory of providence. Although I will often speak of 'collapse' is if it were a single state of affairs, it is really a family of states.

Before we say what a collapse is, it is important to say what collapse is not. Nothing in my argument requires or assumes that divine freedom requires libertarian leeway. Leibniz, with his view that God had exactly one option to create, does not fall prey to my objection.[5] What I object to is the overly narrow winnowing - prior to and independent of any divine volitions - of the possible worlds God is able to actualize. In contrast to traditional accounts of creation and of providence, Molinism introduces a new modal distinction: possible worlds that are nevertheless uncreatable. My objection only has traction with this distinction in place, for I charge the molinist with reducing the space of available worlds in objectionable ways.[6]

The most extreme bad case for Molinism I will call total collapse. Let Υ be a set of propositions describing what each actual agent actually does. If, for each member ψ of Υ, there is a Molinist conditional $\phi \boxdot\!\!\rightarrow \psi$ such that the set of Molinist conditionals imply ϕ, total collapse has occurred. In this scenario, when the Molinist conditionals present themselves to God, they also tell God which creatures will do what and when. And since God had no say over the counterfactuals, God gets no say over which creatures there are or what they do. This more or less eliminates providence.

A second noteworthy collapse I will call single-career collapse. Single-career collapse happens when, for each agent whom God could have created, there is a true conditional (career conditional) $\phi \mathrel{\square\!\!\rightarrow} \psi$ where ϕ states that the agent is created and ψ gives the agent's entire career. This is not quite so bad as total collapse, since God still gets a little bit of say over which agents are created. But since agents inevitably interact over the course of a career, there will be certain (a great many) combinations of agents which will come as a package deal. For instance, if Smiths career-conditional includes 'has a conversation with Jones,' then Jones's career conditional must include 'has a conversation with Smith,' and God creates Smith iff God creates Jones. We don't need to map how involved these entailment networks between the consequents of career conditionals can become to see that this really isn't much providence.

These are particularly sharp types of collapse. But we can think of collapse in a more general sort of way. The goal of a respectable theory of providence is to get God lots of choices amongst worlds to create, and lots of variety amongst those choices (optimally all of them, but Molinists hope to trade a few worlds for a resolution to the foreknowledge/freedom problem). God could have many choices with virtually no variety. For instance, if all God gets to pick is the number of stars, the number of particles, and the number of elements, God gets a vast array of choices (infinitely many), but very little variety. Or God could have a great variety amongst the choices, but altogether too few. For instance, if God gets only a very small subset of the possible worlds to choose from, none of which have any of the same people, things, or events in them, God gets lots of variety, but a very small number. A robust providence requires both. It is important to note that even infinitely many worlds can count as 'very few choices.' What we care about when we speak of number of choices is not the cardinality of the set of feasible worlds, but the proportion of logical space that it occupies.[7]

This thought can be made precise with a little geometry. Suppose in the first moment there are continuum many possibilities.[8] Then we can represent logical space on a cartesian plane, with each point as a world and distance between points representing distance between worlds.[9]

If figure 1 represents God's options before the second moment, figures 2-4 represent ways for God's options to be after the second moment. The shaded points represent worlds that God can choose amongst.

Figure 1: Logical Space Before the Second Moment

In figure 2, we have a decent number of worlds and a decent amount of variety between them.

In figure 3, we have alot of worlds, but little variety. This could well be what a total collapse

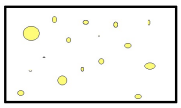

Figure 2: Logical Space When Molinism Works

looks like: a tight cluster of worlds, where all God gets to choose are minor details like the number of stars.

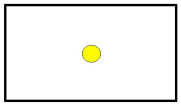

Figure 3: Logical Space In a Total/Low-Variety Collapse

In figure 4, we have alot of variety, but very few worlds. This could well be what a single-career collapse looks like. The options are spread out, but because of the career networks amongst the possible creatures, there aren't many choices.

Figure 4: Logical Space In a Single-Career/Low Number Collapse

We could perhaps model the robustness of providence as having a strictly increasing relationship with the proportion of shaded worlds and their distribution, but we don't need to get too technical here to see the basic point: the fewer and more tightly grouped the worlds God chooses between, the less providence God has. Even when there are infinitely many worlds to choose amongst (as there almost certainly will always be).

We can now move on to the argument. Throughout, I will make a few modeling assumptions. I will assume that with each proposition, we associate a set of worlds. In so doing, I make no substantive claim about the metaphysics of propositions (or of worlds). I merely claim: for each proposition, there exists a set[10] of worlds at which that proposition is true. We can thus model the interaction of propositions under various operations (negation, conjunction, disjunction, consequence) by the interaction of their associated set under various operations (complement, intersection, union, subset). To be a little more accurate, we

create a Boolean algebra with the singletons of the worlds as atoms. Amongst the significant consequences of this model: almost any proposition we care about can be represented as a conjunction, a disjunction, or a material conditional.

Suppose Γ is a sufficiently rich set of counterfactuals. Then Γ will entail lots of non-counterfactual information. For instance, because the counterfactual implies the material conditional, for every counterfactual $\phi \boxrightarrow \psi \in \Gamma$, there is the corresponding proposition $\neg\phi \vee \psi$ in its deductive closure $\Gamma_{\vDash}$. Combinations of these sentences may yield even further inferences. For instance, if $\phi \vee \chi \;\&\; \psi \vee \neg\chi \in \Gamma_{\vDash}$ as well, then $\psi \in \Gamma_{\vDash}$.[11] Thus, starting with the right three counterfactuals - $\phi \boxrightarrow \psi, \neg\phi \boxrightarrow \chi$ and $\chi \boxrightarrow \psi$ - we can infer that ψ. Suppose we add a fourth counterfactual to our set, $\psi \boxrightarrow \Delta$. Then from these four, we can infer Δ.

Variations on this theme give us many ways to extract categorical information from sets of conditionals. Any member with a $\Gamma_{\vDash}$-necessary antecedent gives us its consequent, and some members with $\Gamma_{\vDash}$-contingent antecedents will get their antecedent from other entailment relations between the conditionals, and thus their consequents. For example, if $\phi_1 \boxrightarrow \psi_1$ and $\phi_2 \boxrightarrow \psi_2$ are in Γ and $\psi_1 \vDash \phi_2$ and $\Box_{\Gamma_{\vDash}}\phi_1$, then $\psi_2 \in \Gamma_{\vDash}$.

To fill in the example, let ϕ_1 be 'Curly is offered a \$10,000 bribe,' ψ_1 be 'Curley reports the bribe to the police captain,' ϕ_2 be 'The police captain hears of a bribe offered to Curly,' and ψ_2 be 'She arrests the briber,' and let it be $\Gamma_{\vDash}$-necessary that Curly is offered a \$10,000 bribe. Then 'the police captain arrests the briber' is in $\Gamma_{\vDash}$. So when the Molinist God learns which Molinist conditionals are true, the Molinist God also acquires categorical information about the actual world - in this case, that the police captain will arrest the briber (and all of its implications).

At this point, some readers will hold up a stop sign. "Steady on," they object. "Simply supposing that Curley must be offered the bribe is unfair. Why couldn't God just create nothing, leaving a world with nothing but God enjoying unperturbed bliss? Isn't that always an option?" The short answer is: no. Given the right set of conditionals, God's creatorly hand is forced.

In general, God loses the option to remain lonely whenever there are feasible worlds that God prefers to being alone. For instance, suppose God prefers sufficiently rich worlds populated by free agents who never make the wrong choice to any other kind of world. This seems plausible.[12] Suppose furthermore that the Molinist conditionals deal God a good hand, so that *transworld saintliness* is true of all possible agents:

TRANSWORLD SAINTLINESS: S is a transworld saintly agent just in case S would never make any immoral choice in any feasible world

So long as transworld saintliness is possible - and I see no reason why it should not be - then God will have a great (infinitely) many worlds available that God prefers to being all alone. It would be of dubious rationality for God to not create one of those worlds, and at least under some conditions (given plausible principles of rationality and a cooperative set of worlds), it would be downright irrational. And since neither God's preferences nor God's rationality vary across worlds, if the Molinist conditionals deal God a sufficiently good hand, God is stuck with creatures.[13]

It is a bit odd to describe God as 'stuck' with creatures, when whichever creatures God

creates, they are ones God prefers to have around. The point here is purely logical: if God gets certain suites of Molinist conditionals, the option to stand alone comes off the table (so long as we make a few assumptions about divine rationality). With that clarification, we move on to the argument. Let the following assumptions hold:

PLENITUDE: For any agent S, Circumstance C, and Action A such that it is possible that S perform A in C, Γ includes either the proposition 'if S were in C, then S would freely perform A,' or the proposition 'if S were in C, then S would not freely perform A,'[14]

LOGIC: Stalnaker's System (C2)[15] is the correct logic for counterfactuals.[16]

A few words in defense of these assumptions. I think something like PLENITUDE is required for the Molinist theory to get off the ground. There has to be some guarantee that God has sufficient and sufficiently rich Molinist conditionals to sensibly guide the world. It is also useful to the Molinist against the much-maligned 'might argument' of Hasker (1989), or the general skepticism about counterfactuals defended by Hajek.[17]

I will say more about LOGIC in § 3.2, but I will note that C2 (and and its fragment VC) either are or are fragments of the most popular conditional logics, and a weakening of either would put the Molinist at odds with natural language semanticists and a great many other philosophical users of conditionals.

We can now show a collapse on these minimal assumptions. Of course, all this shows here is that no Molinist should accept both assumptions. But it will be good to illustrate the basic mechanics of the argument on a stripped down theory. Later, we will challenge the most well-developed account of Molinism in the literature. That is where the real dialectical work happens.

Take any necessary proposition $\top$. Then, by an application of conditional excluded middle, for every agent S and action A, there is a true Molinist conditional, either 'if S were in $\top$, S would A' or 'if S were in $\top$, S would not A' But since $\Gamma \vDash$ 'S is in $\top$ if S exists,' $\Gamma \vDash$ 'S performs A if S exists,' and thus the only way for God to prevent S's performance of A is to fail to create S. This gets us the single-career collapse. If we are a bit less picky about forcing our conditionals to conform to the heuristic schema and allow true instances of $\top \boxrightarrow \phi$, where ϕ says that an agent performs an action, we can get total collapse. Depending on how general we allow the antecedents to get, we can get other less severe collapses.

The Molinist has two responses to this argument. She can adopt the *way of constraint*, or the *way of restriction*. The way of constraint constrains the eligible substitution instances for C in the schema for Molinist conditionals. Thus, although there may be true conditionals with very general antecedents, they are not the ones that present themselves to God in the second moment of creation. This leaves too few conditionals in Γ with Γ-necessary antecedents for the collapse to occur. Think of it as a way of constraining PLENITUDE. By contrast, the way of restriction allows any substitution for C, but weakens the background counterfactual logic to the point where there are not enough conditionals in Γ with Γ-necessary antecedents for the collapse to occur. Since defenders of this route are freewheeling about which propositions can go into the antecedents of their conditionals, I will often refer to them as freewheeling Molinists.[18]

3.1 The Way of Constraint

The Way of Constraint limits which propositions can be the antecedents to Molinist conditionals. Eactly how to charcterize the antecedents is a question that has been studied independently from the collapse argument.[19] But the literature is not full of precise accounts of how the constrains go. We will examine the most popular and detailed option: that advanced by Thomas Flint. After arguing that Flint's theory is in danger of leaving too little room for providence, I will leave it to the Molinist to give a precise and well motivated constraint that blocks the argument, but I doubt it's a task that can be done. Before diving into the details, it is good to flag and then set aside a very broad concern for the way of constraint. Molinist conditionals aren't the only conditionals in town. Any adequate Molinist theory will give an account of why certain conditionals present themselves to God in the second moment, while others do not. Proponents of the way of constraint face a special case of this problem; for while perhaps freewheeling Molinists can say something about individual essences or possible persons (assuming there are such things), followers of the way of constraint need to say something more specific: they need to why certain conditionals about the actions of people are true in the second moment, while others are not. In the interest of pursuing the current line of reasoning, I will pretend that this question has been satisfactorily answered, although I am by no means confident that it can.

The best Molinist theory using the way of constraint has been set forward by Thomas Flint. Flint calls for circumstances to be 'complete,' which he roughly defines as follows:

> Molinists can and should think of the circumstances in which an action is performed as being complete. That is, what God would know is how a free being would act given all, not just some, of the causal factors affecting her activity. Obviously, the safest thing to do here is to think of the circumstances as including all of the prior causal activity of all agents along with all of the simultaneous causal activity by all agents other than the agent the counterfactual is about. Circumstances which are all-inclusive in this way will be said to be complete circumstances.

At first glance, Flint's restriction looks quite promising - after all, many of the eligible instances of C will be information-rich. Exactly the kind of proposition that is unlikely to be $\Gamma_{\models}$-necessary.

It is tempting to modify Flint's condition to require circumstances to contain, rather than just an account of agential activity, a complete world-history from the moment of creation to the moment before the agent acts. This includes more information by letting in the non-agential influences. But this still leaves out important information. By failing to include facts simultaneous to S performing A, we risk leaving out important influences. Instead, we should begin with the complete world-history up to t, and from there 'remove' S performing A in such a way that our remaining proposition is non-entailing, but information-rich. In order to do that, it will be helpful talk of worlds as containing initial segments. So I will briefly introduce the notion of an ordered world. The rough idea: we treat worlds as sets of propositions,[20] and then order the sets. We want an order where the propositions describing the world's history are indexed in the same order as the appearance of their truthmakers (or the occurrence of the events they are about), propositions about large scale features of

the world come at the beginning of the order, and various boolean propositions are placed in their natural spots. As a visual aid, we can think of worlds as four-dimensional manifolds ('blocks'), and regions of exact spatiotemporal match as common segments. We use the ordinals to index a world's members, creating ordered worlds.

Let an ordered world be a set of ordered pairs obtained by taking a world and indexing its members with the ordinals (ensuring a plentiful supply of indices with an intuitive structure) by way of the WO-procedure:

WO-I. The necessary proposition(s) comes before any contingent proposition.

WO-II. Propositions about the laws, theory of chance, and other large scale structural features of the world are ordered prior to all propositions about the world's history.

WO-III. Propositions that obtain at a given time in the world's history are indexed in their temporal order (so if the world has a beginning, the propositions describing it are the first historical propositions, and are all mapped to the same index; if it has no beginning, then every historical proposition is after the propositions about large scale features, in order of appearance).

WO-IV. Any proposition entailed by propositions indexed prior to or at α, but not by propositions only indexed prior to α (so that propositions indexed at α are essential to their deduction), is indexed at α.

WO-V. Contingent Molinist Conditionals go last.

A brief justification for WO-I-V. WO-I places the necessary proposition first, ensuring that all worlds trivially share an initial segment. Since this plays no important role in what follows, it is primarily an aesthetic/convenient choice. So long as the placement of the necessary proposition(s) is uniform, it shouldn't matter. WO-II places 'large scale' features of the world next. This is perhaps the most contentious condition. Humeans will find placement after the propositions about the world's history most natural, while defenders of more robust views such as the Dretske-Tooley-Armstrong or Powers and Liabilities theories will favor the early placement. I have chosen the early placement in order to make initial segments of a world maximally information-rich, since our ultimate goal here is a rigorous construction of Flint's criterion of eligibility, and presumably maximal non-entailing circumstances are meant to include things like laws. WO-III sets out the world's history in order. WO-IV ensures that the set of propositions sharing an index is deductively closed (crucial for our purposes), takes care of all boolean propositions and the like, and prevents any propositions from slipping into an index where they shouldn't be.[21] We put the Molinist conditionals last for purely pragmatic reasons, because we do not want them embedded in their own antecedents. This will make some propositions multiply indexed (disjunctions will accompany all disjuncts), but that is the price of deductive closure.

With ordered worlds in hand, we can speak sensibly of initial segments of worlds. Let Δ be an initial segment of w iff:

i $\Delta \subseteq w$

ii There exists some initial segment S of the ordered world w^* obtained from w by the WO-procedure such that the members of Δ are all and only the propositions contained in the members of S

Now we can lay down some stipulations about these world-histories. Our final goal is a rigorous definition of circumstances. I propose the following:

CLOSURE: Circumstances relative to an action are closed under strict implication.

RICHNESS: Circumstances relative to an action are derived from initial segments of worlds by removing the desired consequent (proposition saying that the agent performed the action) and anything that entails it.

NON-TRIVIALITY: Circumstances relative to an action must contain more than tautologous information.[22]

In order to complete the story, we must specify the kind of contraction that takes us from an initial world-segment to a circumstances. Fortunately, the kinematics of changing logically closed sets of propositions have been studied by proponents of AGM (named for its inventors). Unfortunately, their efforts have shown that contraction is not a simple matter.[23]

AGM is a formal system for modeling changes in logically closed belief states, using the resources of mathematical logic and set theory. And while our interest is not epistemological, we can borrow (and tweak) some of their formal machinery. Specifically, we are interested in contraction: deleting information from a logically closed set of sentences in such a way that obtains a new logically closed set of sentences that does not include the deleted information.[24]

More precisely, letting Σ and Λ be sets of propositions, we are interested in the *remainder set* of Σ without Λ (hereafter $\Sigma\perp\Lambda$). We can think of a remainder set as the options for 'removing' Λ from Σ while staying closed under implication. It is, therefore, a set of subsets of Σ. A set of propositions Π is a member of $\Sigma\perp\Lambda$ iff:

1. $\Pi \subseteq \Sigma$
2. $\Pi_{\models} \cap \Lambda = \emptyset$
3. There is no set of propositions Δ such that $\Pi \subset \Delta \subseteq \Sigma$ and $\Delta_{\models} \cap \Lambda = \emptyset$

Informally, condition 1 requires Π to be a subset of Σ, condition 2 requires that Π not imply Λ, and condition 3 is a maximality condition: there can't be some other subset of Σ which strictly includes Π without implying Λ.

Generally, there are multiple members of a remainder set, because there are many maximal ways of removing a proposition from one set while staying closed under implication. A quick example: we can remove a conjunction by removing either of its conjuncts.[25] With this in hand, we can now give a more precise definition of Flint's Molinist conditionals.

FLINT'S CONDITIONALS: $\phi \boxdot\!\!\rightarrow \psi$ is a Molinist conditional iff there exists some pair of sets of proposition $\{\Sigma, \Lambda\}$ such that:

i. Σ is an initial segment of a world;

ii. $\Lambda \subset \Sigma$ describes an agent's free action;

iii. ϕ is the result of conjoining all the members of some Δ such that $\Delta \in \Sigma \bot \Lambda$;

iv. ψ is the conjunction of all the members of Λ; and

v. $\phi \neq \top$.

As given, FLINT'S CONDITIONALS formalizes the idea that circumstances are obtained from initial segments of worlds by deleting an agent's free action, but retaining as much information about that world as can be done without entailing the deleted action. We note that FC-I-IV imply RICHNESS and CLOSURE, but do not imply NON-TRIVIALITY, which must be stipulated in FC-V.

Now that we have FLINT'S CONDITIONALS, we can see why Flint's proposal does not rule out a collapse. First, we note that FLINT'S CONDITIONALS itself is $\Gamma_{\models}$-necessary. Even if the eligibility condition on the antecedents for Molinist conditionals is contingent (a proposal I find dubious but not absurd), as soon as the conditionals present themselves, the eligibility condition is fixed. Thus, from God's necessary knowledge of logical space and God's knowledge of FLINT'S CONDITIONALS, we can, for every world, collect the (true) Molinist conditionals whose antecedents were obtained from an initial segment of that world. Call these sets CFA sets. CFA sets are unique: if two worlds differ in some initial segment, they will differ in their CFA sets. And any two worlds differ in some initial segment (on pain of being identical).

With CFA sets in hand, we can begin. Because we are using a background conditional logic at least as strong as VC (see § 3.2 for discussion of weaker systems), we accept the inference:

CS: $\phi \wedge \psi \rightarrow \phi \boxdot\!\!\rightarrow \psi$

And centering gives a unique status to the actual world, which we can exploit. Recall that (generally) remainder sets have multiple members. Nothing in our construction guarantees that, if $\phi_1, \phi_2 \in \Sigma \bot \Lambda$ and $\phi_1 \boxdot\!\!\rightarrow \psi$ is true, then $\phi_2 \boxdot\!\!\rightarrow \psi$ is. But centering guarantees that for the actual world, it does hold.[26] And so the actual CFA has a special property: CFA-completeness. We define this as follows:

CFA-COMPLETENESS w has a complete CFA iff every conditional obtained from an initial segment of w via the FC-procedure whose consequent obtains at w is in the CFA set for w

The theorem CS makes sure the actual world has a complete CFA set. This means that, any time we have an actual action, we get a true Molinist conditional with an actual antecedent. But there is no guarantee that otherworldly actions accompanied by otherwordly-true antecedents will have a true Molinist conditional. For there is no guarantee that counterfactuals whose antecedent and consequent are true at other worlds will in fact be true. Indeed, if we think of counterfactuals from the perspective of Lewisian system of spheres models, we

should expect very few worlds to have all (or even most) of the same counterfactuals true at them as are true at the actual world. Which counterfactuals are true at a world depends on which sphere a world falls in (and on which world is at the center of the system of spheres), and the more distant we go from actuality, the more variance there is in relative closeness between worlds.

It's difficult to say too much more without a concrete model on the table. But giving a model that even begins to look satisfactory from a Molinist perspective would involve writing infinitely many infinitely long sentences. There is no proof from what we have said to show that there must be many worlds (or more than one) with complete CFA sets, and that is good enough to show the possibility of a collapse. Worlds that agree with the actual world as to which agents do what are the best candidates for having the complete CFA sets, but if those are God's only options, then the only available worlds for creation are clustered in a tight sphere around the actual world, giving us a low variety collapse.

So it appears that, suitably regimented as FLINT'S CONDITIONALS, it is an open question whether Flint's constraint implies a collapse. This gives a strong reason for Molinists to favor it over rivals such as the freewheeling (any proposition can go into the antecedent) approaches. But it also does not rule out a collapse. And while the possibility of a collapse is not as bad as one guaranteed, it is still an unwelcome implication of the view. Molinism is meant to ensure providence, not allow for it to be crippled altogether. Perhaps there is some alternative to these constraints which will guarantee non-collapse. In fact I am certain an ad hoc one could be constructed. But they are the most popular and most intuitive, and so we will focus our attention on the Molinist's other escape route: the Way of Restriction.

3.2 The Way of Restriction

The way of restriction looks to avoid collapse not merely by giving constraints on eligible antecedents for Molinist conditionals (an enterprise primed for charges of ad hockery, especially in light of Robert Adams's grounding objection; bad enough that Molinist conditionals are ungrounded, but now which of them present themselves to God before God choose a world to actualize is extremely sensitive to the content of the antecedent), but by restricting the logic of counterfactuals to the point where the closure of Γ is (or at least need not be) not too much more informative than Γ itself.

The way of restriction walks a delicate path. Part of the appeal of Molinism is the ability to go from some set of conditionals about who would do what and when to a bunch of categorical information about the world. Molinists must be careful to leave the logic of conditionals in good enough shape so as to be able to (potentially) extract information like 'there is no $\Gamma_{\models}$-possible world in which every free agent does no evil,' (Plantinga's Free Will Defense) or 'in order to secure n heaven-bound agents, God had to create n hellbound ones' (Craig's Molinist defense of hell). Thus, on pain of leaving God high and dry with an impoverished set of Molinist conditionals, Molinists must embrace certain richness constraints on the set of available conditionals together with their implications.

An additional factor besetting the way of restriction is the need to maintain a logic of counterfactuals that holds with ordinary usage. Molinist counterfactuals are not special beasts; their $\Box\!\!\rightarrow$ is the $\Box\!\!\rightarrow$ of the linguist. Thus, any attempt to do away with theorems and inferences implicated in the collapse argument must answer to natural language semantics.

If the best theory of counterfactuals endorses (say) C2 or something stronger, so must the Molinist. Bearing these warnings in mind, we begin.

We are faced with a dizzying array of proposals for the semantics of counterfactuals. From Lewisian sphere models to Pearl-style causal modeling, an impressive box of mathematical tools has been brought to bear in the conditionals debates. Fortunately, many of these have been shown to be inter-translatable.[27] Even attempting to summarize all of the options would take us far beyond the scope of this paper. Instead, I will provide axiomatizations of the logics in question, recognizing that most of the major semantics can be made to give rise to them by appropriate restrictions on their models.[28]

We begin with a language. Our syntax is that of the propositional calculus, supplemented by the counterfactual operator $\boxrightarrow$. The rules for well formed formulae (wffs) are as usual, with the addition that interposing $\boxrightarrow$ between any wffs makes a further wff.[29] A set of formulae $\mathcal{L}$ is a conditional logic just in case it includes all tautologies and is closed under *modus ponens*.[30]

Stalnaker's C2, which we have so far treated as our background logic, is the smallest counterfactual logic closed under the following rules:

RCEC: $\phi \leftrightarrow \psi \vdash (\chi \boxrightarrow \phi) \leftrightarrow (\chi \boxrightarrow \psi)$

RCK: $(\phi_1 \wedge ... \wedge \phi_n) \rightarrow \psi \vdash ((\chi \boxrightarrow \phi_1) \wedge ... \wedge (\chi \boxrightarrow \phi_n)) \rightarrow (\chi \boxrightarrow \psi), n \geq 0$

and containing all instances of the following:

ID: $\phi \boxrightarrow \phi$

MP: $(\phi \boxrightarrow \psi) \rightarrow (\phi \rightarrow \psi)$

MOD: $(\neg\phi \boxrightarrow \phi) \rightarrow (\psi \rightarrow \phi)$

CSO: $((\phi \boxrightarrow \psi) \wedge (\psi \boxrightarrow \phi)) \rightarrow ((\phi \boxrightarrow \chi) \leftrightarrow (\psi \boxrightarrow \chi))$

CV: $((\phi \boxrightarrow \psi) \wedge \neg(\phi \boxrightarrow \neg\chi) \rightarrow ((\phi \wedge \chi) \boxrightarrow \psi)$

CEM: $(\phi \boxrightarrow \psi) \vee (\phi \boxrightarrow \neg\psi)$

As perceptive readers will note, CEM played a key role in the initial collapse argument.

Thus, a natural move for those Molinists opposed to any restriction on C-eligibility is to deny its validity.[31] Those who do so are in good company: W.V.O Quine, David Lewis, Jonathan Bennett, and a majority of contemporary philosophers reject it.[32] But, setting aside the general arguments in its favor, CEM is not without its charms for committed Molinists. First of all, it gaurantees PLENITUDE, a non-trivial task in even slight weakenings of C2 (such as our next logic, VC). Secondly, it prevents Hasker's "Might Argument" from getting off the ground.[33] And despite the generally dismissive tone with which some have greeted Hasker's argument, its defeat is work that must be done somehow. And third, counterexamples to CEM are often precisely the pairs of the type of counterfactual Molinists

need to come out true: counterfactuals in which the antecedent describes an indeterministic process while the consequents specify outcomes of that process.[34]

The first natural weakening of C2 is David Lewis's VC. Its axiomatization is just like that of C2, but we replace CEM with CS.

CS: $(\phi \wedge \psi) \rightarrow (\phi \boxrightarrow \psi)$

Unfortunately for the freewheeling Molinist, this weakening does not get her out of the problem. CS ensures that there are just enough counterfactuals for the collapse to occur. For any counterfactual of the form 'if S were in $\top$, S would freely A' with a true consequent will be true. As inadequate compensation (and for more or less the same reason), VC still allows something close enough to PLENITUDE to obtain, for Γ will at least be rich enough to allow God to create the actual world. Molinists who embrace Flint's restriction will recognize CS as the theorem deployed against. And so they may see good reason to combine the way of constraint with the way of restriction, adopting both Flint's rule for antecedents and a logic no stronger than VW (the result of dropping CS from VC).

Just as there are general arguments for and against CEM, there are general arguments for and against CS. Most of the arguments in favor of it are based on the preferred semantics (in combination with pragmatic defenses against alleged counterexamples). The rough idea behind much recent work on counterfactuals has been: see what changes need to be made to actuality to make the antecedent true, and then see if the consequent is true too (this may be seen as an ontic version of the Ramsey Test). In cases where the antecedent is actually true, the answer to the question, 'what must change to make the antecedent true?' is 'nothing.'[35] Thus, we can see that CS is motivated by the 'minimal change' conception of the truth conditions for counterfactuals. Unsurprisingly, then, all of the major work in this tradition is friendly to it.

Nevertheless, there are several classes of common counterexample. The first we might call "irrelevance" examples: examples like (1) .

(1) If London were the capitol of the UK, then Washington would be the capitol of the US.

In these sorts of cases, a conditional is sandwiched between an arbitrary pair of truths. The second, we might call "counterevidence" examples: examples like (2), supposing that John is in general a bad party guest and that the party went well.

(2) If John were to attend the party, it would be a success

In these cases, the antecedent counts as evidence against the consequent, but not decisively.[36] And finally, we have indeterministic examples like (3)[37]:

(3) If atom R_1 were in a sample of raidum-226, it would decay after 1600 years.

It has been suggested that these sorts of (probabilistic) cases render not only CS, but most counterfactuals false.[38]

In response to these examples, I can do no better (and see no reason why better need be done) than Lewis. Counterfactuals with (known) true antecedents are odd to assert, because the counterfactual construction carries a presupposition of a false (or at least not known) antecedent, and because the conversational purpose in most contexts would be better served by asserting the conjunction than by asserting the counterfactual (in fact, failure to do so violates the maxim of quality). Thus, we are right to be suspicious of (1), (2), and (3). But since they are known to be flawed assertions, we cannot take intuitions as to their *truth value* all that seriously.

Not only so, but it is unclear that merely retreating from VC to VW will solve all the problems. Lee Walters has argued that most extant attempts to do so either fail to solve the various counterexamples that motivate dropping CS or end up dispensing with some other valued principle of counterfactual logic.[39] Space does not permit a thorough discussion of Walters's arguments here, but combined with Lewis's point about the infelicity of asserting counterfactuals with known antecedents, they make for a compelling defense.

Not only so, but the Molinist may get less than she hopes for by weakening the logic. By dropping CS from VC, we obtain VW. This frees Flint style Molinists from a logic that guarantees the possibility of a collapse. But even so, there will be many true instances of CS in the Molinist's intended model. Applying FC already filters out many of the sorts of counterfactual used as counterexamples to CS. When we have a counterfactual of the sort Flint is interested in, it is fairly intuitive that CS is true of it. Thus, it is unclear how much the Molinist gains by falling back to VW. Even though CS is not a theorem of VW, neither is its negation; there is nothing VW-inconsistent about a strongly centered model. So it does not free her from the possibility of a collapse. It merely frees her from the possibility of collapse being guaranteed by the background counterfactual logic.

Furthermore, the retreat to VW brings a new danger onto the horizon. In logics as strong as VC, PLENITUDE or something near enough is a logical truth. God at least gets enough counterfactuals to make the actual world. But there are VW models in which this does not happen; for instance, models in which the only true counterfactuals are those in which the antecedent entails the consequent. In fact, the crucial step in van Inwagen's attack on Molinism is the step from VC to VW (1997). The VW-embracing Molinist owes us a story about why Γ is rich enough to fulfill its role in the theory of providence. And in doing so, she must not recreate the resources needed for a collapse argument.

Logics weaker than VW have nothing new to give the Molinist, and only make the richness issue more pressing. They also bring her into direct conflict with the philosophical mainstream, where the debates over counterfactuals almost uniformly presuppose stronger logics.[40] So we shall pay them no heed.

Instead, we shall consider a broad issue (often hinted at) facing the way of restriction. As I have argued, Γ (and its accompnying logic) can fail to live up to its theoretical role in two ways. It can be so powerful that God gets little to no choice as to which world is actual, or it can be so anemic that God gets little to no help in selecting a world. Call a Molinist theory that avoids these two extremes Goldilocks Molinism. We are faced with a question: should Molinism entail Goldilocks Molinism? In our survey of the most common/popular counterfactual logics, we have seen that - by the lights of the logic alone - Molinism does not entail Goldilocks Molinism. In system VC and stronger, there is a possibility of collapse. In system VW and weaker, there is the possibility of an anemic set of counterfactuals being of

little to no help to divine providence. The only difference between the two is CS.

It is still open to the Molinist to provide some other argument for the Molinism to Goldilocks Molinism entailment, likely in the form of some principle about which Molinist conditionals become available to God (thus returning at least partially to the way of constraint). But such an argument must come from the nature of action, agency, or Molinist conditionals. I cannot rule out there being any such argument; however, I do not see how it would go. I can see several criteria of adequacy (unlikely to be jointly sufficient) which make the task difficult. First: any resulting principle must be motivated by considerations pertaining to the subject from which it originates. If it comes from the nature of action or agency, it must be motivated by concerns in action theory; if it comes from the nature of counterfactuals, it must be motivated by concerns from the logic and semantics of counterfactuals. And second: it must enforce something near enough to PLENITUDE, but without triggering a collapse. Thus, its resulting rule must (for instance) be strictly weaker than CS restricted to Molinist conditionals. I am doubtful that there is any (non ad hoc) rule that fulfills both of these.

So suppose Molinism does not entail Goldilocks Molinism. Is this a problem? Molinists have shown a general willingness to accept *prima facie* undesirable modal consequences of their view, such as the possibility that once the Molinist conditionals have been set, there is no feasible world that God finds worth creating. But the problems here are worse than that. Unlike the all-terrible situation, the collapse and anemic situations are providence-depriving. It is the difference between selecting amongst a large variety of bad options, and selecting amongst very few or very homogenous options.

We have already seen how the collapse is providence depriving. To see how the anemic case is, too, consider the (extreme) VW model in which all counterfactuals are false (except those required by ID and by various strict conditionals). When God is considering whether to put someone in some situation, God has no idea what that person will do: it is both false that she would A, and false that she would not A. And without that knowledge, God cannot guide the world in the way that Molinism is meant to preserve.

So whether God gets to exercise providential control depends on how the Molinist conditionals turn out. This runs head on into the doctrine of divine aseity. As traditionally understood, divine aseity is the ultimate declaration of metaphysical independence. It requires that God not depend on anything beyond Godself for the possession of God's 'important' (for some suitably spelled out notion of importance) properties. On the uncontroversial assumption that providence is an important divine attribute, we get a conflict: unless one of the right sets of Molinist conditionals are the true ones, God cannot exercise providence. But the Molinist conditionals are independent of God. And so whether God exercises providence depends on something beyond divine control. This is unpalatable.

4 Conclusion

The Molinist sets out a grandiose project: to reconcile a strong doctrine of divine providence with a strong theory of human freedom. In order to do so, she introduces Molinist conditionals: true counterfactuals about what possible agents would do in possible situations. These counterfactuals not only are contingent, but are beyond divine control. God

gets no say in which are true and which are not. Further, they are known to God prior to God's choice of a world to actualize. The promise is that, in doing so, they allow God (within their own constraints) to exercise providential control over who does what by only putting agents in situations where they would do as God wills they do.

But his control comes at a price. Rather than giving God all of logical space from which to choose an actual world, Molinists 'filter' the possible worlds through the Molinist conditionals (and their logical consequences), so that it is only feasible for God to actualize worlds that survive the filter. However, as we have seen, things are not so tidy. The logical consequences of a set of counterfactuals can be quite broad. Very rich sets of counterfactuals imply a good deal about which world is actual. In fact, using the standard background counterfactual logics and making some minimal assumptions about what the set of Molinist conditionals is like, we have seen that they can pin down one or only a very few candidates for the actual world. Moreover, they can dictate some of the very facts that they were supposed to allow God to choose: facts about who does what.

In the face of this problem, the Molinist has two options: the way of constraint - setting out constraints on what kinds of information the antecedents of Molinist conditionals can contain - and the way of restriction - restricting the background logic of counterfactuals so that the original set has very few extra consequences. I have argued that both of these options faces problems. The way of constraint is extremely tricky to implement successfully. I have shown how the best proposed restrictions in the literature can lead to collapse. I conjecture that in logics as strong as VC, a route to collapse will present itself. The way of restriction introduces a new way for Molinism to fail to deliver on its promises: in VW and weaker logics, there are models in which the set of Molinist conditionals does not contain enough information to be of use to God in guiding the world.

Thus, amongst possible sets of Molinist conditionals, there is a zone of sets that are strong enough to cause a collapse, a zone of sets that are too weak to be usable, and a zone of sets that are just right. Molinists have yet to offer a guarantee that the set God gets will be in the third zone (and many contemporary variants of Molinism entail that it is not). And without one, their theory undermines the doctrine of divine aseity. Rather than God's exercise of providence being wholly dependent on God, it depends on whether God is dealt a favorable hand. So the Molinist *concordia* collapes. Molina's theory cannot deliver.[41]

Notes

[1]Adams (1977), Plantinga (1985), Freddosso (1988), Adams (1991), Flint (1998), Hasker (1999), Zimmerman (2009), and the essays in Perszyk (2011) give a taste and hit many of the highlights.

[2]Zimmerman [2008]

[3]I follow Flint (1998) in presentation and terminology

[4]It is once more worth noting that I will assume the entire third moment to happen synchornically. God makes a single decision, and that decision carris out all of its implications at once. Views on which this moment unfolds in 'stages' - such as that of Zimmerman (2009) - introduce complications that we need not consider while getting the basic argument on the table.

[5]Thank you to Bob Adams for pressing me on this point.

[6]Ultimately, if forced to classify which of the traditional divine atributes I charge the molinists with losing, it is divine *aseity*

[7]This presupposes that measure theory can sensibly applied to the plurality of worlds. We will pretend here that it can.

[8]This is almost certainly false, but for reasons that will become apparent trying to use a plausible assumption would make our precise version too complicated to be useful.

[9]Distance depends on similarity, so that if we have a set of worlds all of which are distant from each other we have great variety amonst the members of that set. We might even give a formal measure of the variety within a set of worlds by taking the measure of its convex hull within the plane, but for our present purposes we do not need a formal measure of variety.

[10]more precisely: a class, but having acknowledged the distinction between sets and proper classes, and the various cardinality worries usually associated with the need to make it, I propose to ignore it.

[11]We leave the proof as an exercise to the reader

[12]What if God has second order preferences with ties? Wouldn't that give us regions of logical space where God's preferences change? Perhaps. I'm not sure there is any pressure to assume higher order divine preferences, and I'm not sure - given higher order divine preferences - we need to assume there can be ties. But if forced, I will insist that the Molinist modify her theory a bit. The divine preference order is settled before the Molinist conditionals arrive, making them the second bit of contingent information on the scene.

[13]Can God ever be stuck with specific cratures? Probably. We can always add epicycles to the above model. Let only some of the creatures by transword saints, and let them appear

in all the worlds on the higher end of God's preference structure...

[14]We willl later explore the consequences of weakening this assumption. Note now that it amounts to an application of Conditional Excluded Middle to Molinist conditionals.

[15]See Priest (2008) and Nute & Cross (2001) for thorough discussion of major counterfactual logics. We provide a complete axiomatizaion of C2 in §x.x.

[16]Later, I will explore the argument with weaker systems.

[17]Most notably in "Most Counterfactuals are False" (Ms.)

[18]The way of restriction was suggested to me in personal correspondence by Alvin Plantinga.

[19]The best of these eforts can be found in Zimmerman (2009), Flint (1998), Craig (1990), Freddosso and Flint (1983), and Wierenga (1989).

[20]Those with metaphysical scruples may apply their favorite paraphrase, so that we represent worlds as sets of propositions and so on.

[21]For instance, if it didn't have the second clause, all propositions prior to an index would be placed at that index.

[22]Note here that this does not rule out collapse by fiat. $\Gamma_{\vDash}$-necessary propositions need not be tautologous.

[23]For further discussion of these issues I refer the reader to Alchourron & Makinson (1982), Alchourron, Gardenfors & Makinson (1985), and Levy (2004).

[24]My presentation here follows Alchourron & Makinson (1982)

[25]And since every proposition except $\top$ can be written as a conjunction, that is enough to get multiple members quite often.

[26]*proof*: Let $\phi_1....\phi_n$ be the members of a remainder set from an actual initial segment. Then they are implied by a true proposition, so true. Let ψ be the proposition by which the initial segment was contracted. So ψ is true. So each conditional $\phi_1...\phi_n \boxdot\!\!\rightarrow \psi$ is true.

[27]The proofs can be found in Lewis (1981), Nute & Cross (2001), Marti & Pinosio (Ms.)

[28]For a detailed presentation of most of the major options, and the axiomatizations of various logics from which the following paragraphs are drawn, see Nute & Cross (2001)

[29]This allows for arbitrary nesting of counterfactuals.

[30]see Priest (2008) for a conditional logic that does not include MP.

[31]Indeed, this was Alvin Plantinga's first response to the collapse argument in personal correspondence

[32]But see Stalnaker (1981), Williams (2010), and Swanson (2012) for a spirited defense.

[33]See Hasker (1989), Hasker (2011), Flint (2011), and Mares & Perszyk (2011) for furher discussion.

[34]For example, the pair 'if a fair coin were flipped, it would land heads' and 'if a fair coin were flipped, it would land tails.' are commonly taken to both be false.

[35]The canonical defense can be found in Lewis (1973) and Stalnaker (1968).

[36]We can see this objection crop up in Bennett (1974)

[37]Bennett (2003) favors these sorts of examples

[38]Hajek (ms.) is the primary prosecutor; see Lewis (1986) for an attempted fix.

[39]Lee Walters (Forthcoming) "Possible Worlds Semantics and True-True Counterfatuals." *Pacific Philosophical Quarterly.*

[40]Pollock's SS, Lewis's VC, Stalnaker's C2, and the strict conditional logics of Gillies and von Fintel are the main contenders. See von Fintel (2001) and Gillies (2007) for details on the latter.

[41]Acknowledgements

Works Cited

1. Adams, Robert M. (1977). "Middle Knowledge and the Problem of Evil." *American Philosophical Quarterly* 14 (2):109-117.

2. — (1991). "Another Anti-Molinist Argument." *Philosophical Perspectives* 5:343-53.

3. Alchourron, Carlos E. & David Makinson (1982). "On the Logic of Theory Change: Contraction Functions and Their Associated Revision Functions" *Theoria* 48 (1):14-37.

4. Alchourron, Carlos, Peter Gardenfors & David Makinson (1985). "On the Logic of Theory Change: Partial Meet Contraction and Revision Functions." *Journal of Symbolic Logic 50.* 510530.

5. Bennett, Jonathan (1974). "Counterfactuals And Possible Worlds." *Canadian Journal of Philosophy* 4:381-402.

6. — (2003). *A Philosophical Guide to Conditionals.* Oxford: OUP.

7. Craig, William Lane (1989). "No Other Name: A Middle Knowledge Perspective on the Exclusivity of Salvation Through Christ." *Faith and Philosophy* 6 (2):172-188.

8. — (1990). *Divine Foreknowledge and Human Freedom.* London: E. J. Brill.

9. Freddoso, Alfred J. (1988). "Introduction," in *Luis de Molina: On Divine Foreknowledge (Part IV of the Concordia)*, trans. by Freddoso. Ithaca: Cornell University Press.

10. Flint, Thomas P. (1998). *Divine Providence: The Molinist Account.* Ithaca: Cornell University Press.

11. — (2011). "Whence and Whither the Molinism Debate." in Perszyk (ed.)

12. Flint, Thomas P. & Alfred J. Freddoso (1983). "Maximal Power." In Alfred J. Freddoso (ed.), *The Existence and Nature of God.* Notre Dame: University of Notre Dame Press. 81–114.

13. Gillies, Anthony S. (2007) "Counterfactual Scorekeeping," *Linguistics and Philosophy* 30:329-360.

14. Hasker, William (1989). *God, Time, and Knowledge.* Ithaca: Cornell University Press.

15. — (1999). "A New Anti-Molinist Argument," *Religious Studies* 35:291-297.

16. — (2011) "The (Non-)Existence of Molinist Counterfactuals." in Perszyk (ed.).

17. Kratzer, Angelika. "What 'Must' and 'Can' Must and Can Mean." *Linguistics and Philosophy* 1 (3):337–355.

18. Levi, Isaac (2004). *Mild Contraction: Evaluating Loss of Information Due to Loss of Belief.* Oxford: Oxford University Press.

19. Lewis, David (1973). *Counterfactuals.* Oxford: Basil Blackwell.

20. — (1981). "Ordering Semantics and Premise Semantics for Counterfactuals." *Journal of Philosophical Logic* 10 (2):217-234.

21. — (1986). 'Postscript to Counterfactual Dependence and Time's Arrow," *Philosophical Papers, Volume II.* Oxford: OUP, 33-52.

22. Mares, Edwin & Ken Perszyk (2011). "Molinist Conditionals." in Perszyk (ed.).

23. Nute, Donald & Charles B. Cross (2001). "Conditional Logics." in Dov M. Gabbney & F. Guenther (eds.) *Handbook of Philosophical Logic* 2^{nd} *Edition, Volume IV.* New York: Springer.

24. Perszyk, Ken (ed.) (2011). *Molinism: The Contemporary Debate.* Oxford: OUP.

25. Plantinga, Alvin (1974). *The Nature of Necessity.* Oxford: Clarendon.

26. — (1985) "Replies to my Colleagues", in *Alvin Plantinga,* James E. Tomberlin and Peter van Inwagen (eds.). Dordrecht: D. Reidel, 313-396.

27. Priest, Graham (2008). *An Introdution to Non-Classical Logics.* Cambridge: Cambridge University Press.

28. Stalnaker, Robert (1968). "A Theory of Conditionals," in *Studies in Logical Theory, American Philosophical Quarterly* Monograph Series 2, Oxford: Blackwell, 98-112.

29. — (1981). "A Defense of Conditional Excluded Middle," *Ifs*, Wiliam Harper, Robert Stalnaker, and Glenn Pearce eds. Boston: Reidel

30. Swanson, Eric (2012). "Conditional Excluded Middle Without the Limit Assumption," *Philosophical and Phenomenological Research* 85(2):301-321

31. van Inwagen, Peter (1997). "Against Middle Knowledge." *Midwest Studies in Philosophy* 21 (1):225-236.

32. von Fintel, Kai (2001). "Counterfactuals in a Dynamic Context." In Michael Kenstowicz (ed.), *Ken Hale: a Life in Language,* Cambridge: MIT Press, 123152.

33. Walters, Lee (Forthcoming). "Possible Worlds Semantics and True-True Counterfactuals." *Pacific Philosophical Quarterly.*

34. Wierenga, Edward (1989). *The Nature of God.* Ithaca and London: Cornell University Press.

35. Williams, J. R. G. (2010). "Defending Conditional Excluded Middle," *Nous* 44(4):660-685.

36. Zimmerman, Dean (2009). "Yet Another Anti-Molinist Argument." in Samuel Newlands & Larry M. Jorgensen (eds.), *Metaphysics and the Good: Themes From the Philosophy of Robert Merrihew Adams.* Oxford: OUP.