WORK FOR A NEW THEORY OF MODALITY

A Dissertation

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Possible worlds theory is one of the most important developments in analytic philosophy within the last fifty years. Possible worlds have been put to use in almost every problem in metaphysics, been used to clarify important epistemic ideas such as luck and reliability, helped us understand mental content, and been a crucial tool in philosophy of religion. An essential part of possible worlds theory is what I call Orthodox Modal Semantics (OMS). In my dissertation I argue that an alternative theory, Unorthodox Modal Semantics (UMS), should be adopted. We should accept UMS because it is useful. Specifically, it helps us solve important problems involving counterfactuals, modal epistemology, free will, and meta-philosophy.

In the first chapter I present the argument for acceptance of UMS based on its utility. Specifically, we should prefer UMS to other modal semantics because it can be used to solve three important problems. In the second chapter I present UMS and compare it to OMS. There are two primary differences between the theories. UMS evaluates modal claims not with respect to possible worlds but with respect to less than maximal states of affairs. Second, UMS introduces the concepts of explicit and implicit truth at a state of affairs while OMS relies merely on truth at a state of affairs.
In chapters 3-5 I apply UMS to various problems. Each of these chapters defends one premise in the argument from utility presented in chapter 1. In Chapter 3 I address The Problem of Modal Knowledge. I argue in chapter 4 that by applying UMS we can both accept the conclusions of metaphysicians and reject the claim that worlds with bizarre arrangements of stuff are possible. Chapter 5 contains an application of UMS to the evaluation of counterfactuals with impossible antecedents. Finally, I end the dissertation by ruling out a competitor to UMS, the Theory of Impossible Worlds.
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CHAPTER 1:

THE ARGUMENT FOR UNORTHODOX MODAL SEMANTICS

Possible worlds theory is one of the most important developments in analytic philosophy within the last fifty years. Possible worlds have been put to use in almost every problem in metaphysics, been used to clarify important epistemic ideas such as luck and reliability, helped us understand mental content, and been a crucial tool in philosophy of religion. The scope and impact of possible worlds theory is not surprising because possible worlds theory’s biggest contribution has been to provide us with a way of analyzing our notions of possibility and necessity. These concepts are at the center of all philosophizing. Even if at the end of the day possible worlds theory is mistaken, its usefulness cannot be denied.

An essential part of most possible worlds theories\(^1\) is a commitment to the following five theses:

\(\textbf{(OMS1)}\) Sentences of everyday language that are equivalent to “Possibly P\(^2\),” express a proposition that is equivalent to \textit{There exists a possible world at which P is true.}

\(^1\) These propositions do not exhaust possible worlds theory. To investigate the entirety of orthodox possible worlds theory I would need to at least present theses on de re modality, modal epistemology, and the metaphysics of possible worlds. In the dissertation I will focus my investigation on de dicto modal claims.

\(^2\) Of course, I am not speaking of epistemic modality here. Though the theory I will propose in this dissertation could be applied to epistemic modality.
(OMS2) Sentences of everyday language that are equivalent to “It is impossible that P,” express a proposition that is equivalent to There does not exist a possible world at which P is true.

(OMS3) Sentences of everyday language that are equivalent to “Necessarily P,” express a proposition that is equivalent to Every possible world is such that P is true at it.

(OMS4) Sentences of everyday language that are equivalent to “If it were the case that P, then it would be the case that R,” express a proposition that is equivalent to There does not exist a world where P is true and R is false and which is more similar to the actual world than all the worlds in which P is true and R is true, or P is impossible.³

(OMS5) A proposition P is true at⁴ a world W iff if W were actual, then P would be true.⁵

These five theses constitute what I will call “Orthodox Modal Semantics,” or OMS. OMS is an analysis of our everyday language that relies on our ability to make reference to possible worlds and say what it is for a proposition to be true at that world.

I think that the first four theses that compose OMS are false and the fifth is in need of elaboration. In their place I am going to offer five corresponding theses that compose what I call “Unorthodox Modal Semantics,” or UMS. UMS differs from

³To be fair, OM4 is more controversial than the previous 3 theses. Perhaps it is not fair to include it as part of orthodoxy. However, it is the most popular account of counterfactuals in the literature, even if it does not have the same amount of acceptance as the other theses. In Chapter 2 I will examine each of these theses in more detail.

⁴Some like the locution “true in,” while others prefer the phrase “true at.” I am going to follow van Inwagen, 1986, and use “true at.” While he uses that phrase there, he has expressed that he prefers the locution “true in.”

⁵This thesis rules out the acceptance of OMS by people like David Lewis who think that possible worlds are concrete objects. In chapter 2 I will present an alternative to OMS5 that is still within the spirit of OMS called OMS5C. Everything I say here applies generally to both OMS and the theory that substitutes OMS5 with OMS5C.
OMS in three important respects: First, it makes everyday modal language sensitive to context in ways OMS does not. Second, UMS relies not on reference to possible worlds but on reference to less than maximal states of affairs\(^6\) which may or may not be included in a possible maximal state of affairs (that is, a possible world). Finally, UMS will draw a distinction between explicit truth at a world and implicit truth at a world where OMS draws no such distinction.

In the next section of Chapter 1 I am going to present my argument for the conclusion that we ought to adopt UMS instead of OMS. I will follow that section by laying out how the rest of the dissertation will proceed. Finally, I will end Chapter 1 by defending premise 5 of the argument.

1.1. The Argument for UMS

I believe that we should adopt UMS because it is more useful than OMS and it does not come at “too high a price.” UMS’ price would be too high, for example, if adopting it left us committed to a contradiction. There are three particular areas in which I believe UMS is more useful than OMS. First, UMS can help us resolve difficulties in analyzing counterfactuals that OMS cannot solve. Second, UMS give us a basis for a successful theory of modal knowledge and OMS does not. Finally, UMS is superior to OMS in its handling of the meta-philosophy behind much of contemporary metaphysics.

\(^6\) A brief note about the use of the term “state of affairs.” I take a possible world to be a maximal state of affairs. I think events, if there are such things, are not states of affairs. Thus, I do not endorse what I call the “Armstrongian” use of the word “states of affairs.” When David Armstrong and others like him talk of “states of affairs” they are talking about what some of us call “events”. 
Even if I am right about UMS being superior to OMS in the above ways, and I am right that UMS is not too costly, it does not follow that we should adopt UMS: perhaps there is a competitor to UMS that is a) as useful as UMS (or even more useful) and b) does not cost more than UMS. I think that UMS does have a close competitor; the theory of impossible worlds (TIW) and its version of the five theses introduced in the beginning of the chapter. However, TIW is faulty and thus “costs more” than UMS. Specifically, TIW cannot give an analysis of truth at a world and must counter-intuitively take that concept as primitive.

Before I present the argument for acceptance of UMS, I will briefly describe the problems I am going to examine.

The Problem of Counterfactuals—There is good reason to think that counterfactuals with impossible antecedents are not trivially true. However, OMS entails that they are and many find OMS’s account of counterfactuals to be the best account.

The Problem of Modal Knowledge—It seems that to know a proposition of the form Possibly P we must be able to imagine an entire world at which P is true. We cannot perform such acts. Yet, imagination does seem to provide support for believing some modal statements.

The Problem of Metaphysical Failure—Metaphysics discussions often revolve around the claim that some sort of bizarre arrangement of stuff is possible. Unfortunately, there is good reason to withhold belief in the possibility of these arrangements. Further, there is also good reason to not withhold belief in the conclusions metaphysicians draw from the supposed possibility of these bizarre arrangements.

The following argument, then, is at the core of the dissertation:

1. The Problem of Counterfactuals can be solved by the adoption of UMS and The Problem of Counterfactuals is important.
2. The Problem of Modal Knowledge can be solved by the adoption of UMS and The Problem of Modal Knowledge is important.

3. The Problem of Metaphysical Failure can be solved by the adoption of UMS and The Problem of Metaphysical Failure is important.

4. The closest competitor to UMS is the Theory of Impossible Worlds and the Theory of Impossible Worlds is more unattractive than UMS.

5. If a single theory can solve three important problems, and its closest competitor(s) is (are) more unattractive than it is, then we ought to accept that theory.  

6. Therefore, we ought to accept UMS.

One might wonder why the argument makes no mention of UMS being coherent or even plausible. In Chapter 2 I will speak to these concerns and show that UMS is indeed coherent and that there are no objections that render UMS implausible. The argument does take this into account in premises 1-3. For, a proposed solution that is incoherent or very implausible will not likely solve very many, if any, problems.

The argument is valid, and the rest of the dissertation is an attempt to convince the reader that the argument is sound.

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7 One might object to this premise on the grounds that a competitor might solve other problems and thus pull its weight that way. I take it that if this was the case then the competing theory would not be less attractive.
1.2. The Structure of the Dissertation.

In chapter 2 I will present in more detail both OMS and UMS. I will begin by clarifying and expounding upon the five theses that compose OMS. Then, I will trace the history of OMS and, to some extent, the history of possible worlds, from Saul Kripke’s use of possible worlds in giving a semantics for modal logic up to the present use of possible worlds in metaphysics and epistemology. I will give the details of UMS and defend it against some possible objections. I will neither argue for UMS directly nor for any of the premises of the argument in the second chapter.

In chapters 3-5 I defend premises 1-3. In chapter 3 I defend premise 2, in chapter 4 I defend premise 3, and in chapter 5 I defend premise 1. These chapters share several characteristics. They each begin with my attempt to demonstrate some problem and show that the problem is of importance. Further, they each will implicate OMS in being part of the problem and not of the solution. Predictably, they each end with a demonstration of how adopting UMS and rejecting OMS solves the problem.

In none of these chapters will UMS be the only solution to a problem. It is, I think, the preferred solution to each problem, but the reasons I give for that position will not rule out any rational disagreement. In any case, I will show that no solution for any particular problem is clearly better than UMS. Additionally, all solutions that solve a particular problem and continue to accept OMS will not be able to solve the other problems. Only UMS will be able to solve all three problems at a low cost.

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8 This is not quite true. Suppose you accept OMS and, for each problem, you adopt the following three solutions, A, B, and C. In some sense there is one solution that solves all the problems and still accepts OMS. The solution would be the thesis that A, B, and C and OMS are true. This
The competition between TIW and UMS is not coincidental. They both reject OMS. Further, they both modify OMS by arguing that modal statements should be analyzed not by making reference only to possible worlds but by making reference to impossible worlds or less than maximal states of affairs, respectively. Also, they require that we think about truth at a world differently than we do when using OMS. I will conclude the dissertation in Chapter 5 by investigating the merits and flaws of TIW and arguing that UMS is superior.

1.3. Premise 5

Premise 5 is unique in that it contains no mention of UMS. Premise 5 is what one might call a “methodological premise.” It expresses a truth about theory selection, and it is on this truth that I am basing my dissertation. It is for this reason that I am going to end introductory pleasantries and start the real work of the dissertation by defending premise 5. First, I will clarify the terms used in premise 5. Next, I will show how the premise is currently used in contemporary metaphysics. Third, I will make some remarks about why premise 5 is intuitive. Finally, I will give a sound argument for premise 5.

solution is worse than both UMS and TIW because it is not unified and it must accept the negative consequences of A, B, and C. These consequences are relatively high given the soon to be demonstrated cheapness of both TIW and UMS. From this point on I will ignore these disjunctive theories.
1.3.1. Clarification

In each of the chapters where I present a so-called problem I will present a group of inconsistent statements. For example, the following two statements are inconsistent and form the basis of a problem:

(Non-reductive Agency) Necessarily, our free actions are caused by a substance and not by an event(s).

(Reductive Agency) Non-reductive Agency is false.

Each of these groups constitutes a problem. We must deny one of the statements. Further, each statement has “something going for it.” That is just to say that there are reasons for us to think each statement is true. The “problems” I present would not be very interesting problems if it was easy for us to determine which statement we ought to deny.

Thus, a solution to the problem does one of two things; either it gives us good grounds to think that rejecting one of the statements in a group is better than rejecting any other statement in that group or it demonstrates that the statements in a group are not really inconsistent. When I talk of a theory “solving” a problem, I am saying that the theory provides a solution to one of the problems that I am a presenting. Further, the cure should not be worse than the disease. A theory that solves a problem has shown that, whatever its warts, it is reasonable to adopt it in the face of the paradox. Among other things, this qualification insures that theories that solve problems are at least consistent and are more reasonable to believe than either, one of the problem statements, or the beliefs that led us to think there was a problem.
The “problems” referenced to in premise 5 are not just any problems. For the antecedent to be satisfied the solved problems must be “important.” What makes a problem “important”? There are three criteria that a problem must meet for it to be considered important. First, it must be the case that a denial of any of the statements that constitute the problem comes with significant *prima-facie* cost. For example, consider the following problem:

**(RP1)** Any property is such that there is a set such that all its members and only its members instantiate that property.

**(RP2)** There is a property that is had by all and only things that are not set-theoretical members of themselves.

One of these statements must be false. However, each one has some intuitive grip on us, and to deny either one comes at a hefty price. Granted, one might not see those prices initially. This is why so often philosophers must motivate problems before solving them. Upon reflection, however, RP1 and RP2 do seem like they must be true. This fact is what makes Russell’s Paradox so interesting.

Second, a problem is important only if solving it one way over another way makes a difference in how we handle other problems and topics in philosophy. If a problem is an island unto itself, then it is difficult to see why that problem is so important. The puzzle it offers might be extremely interesting, but solving the puzzle will not affect our treatment of other areas of philosophy. Granted, the “makes a difference” locution is vague, but it is not unintelligible. All three of the problems that I consider in the dissertation clearly make a difference in other areas of philosophy and I will demonstrate that fact in each of the respective chapters.
One might think that I am being overly strict here with my use of the word “important.” For example, one might think that the problem of whether God exists is intrinsically important and its importance does not hinge on it making a difference. There are certainly some meanings of the word “important” that support this intuition. However, I think my use of the word here is “within bounds.” Not much hangs on this point. If one objects to my use of the word “important”, then one could substitute another word in or treat it as a technical term.

Third, a problem will be important for the purposes of premise 5 only if it has received significant attention in the current literature. Again, “significant” is a vague word but there are clear cases of it being satisfied. For example, philosophers have devoted significant attention to what could be called the “problem of modal metaphysics.” I include the “significant” qualification because I think it captures something essential to our use of “important” and it lends strength to premise 5. It is a good thing to be able to solve interesting consequential problems, it is even better to solve problems that a) philosophers have already spent significant amounts of time working on and b) a large group of philosophers is in agreement about the fact that the problems needs to be solved. Finally, this qualification hopefully suppresses some worries that my showcasing of the problems I have chosen is an ad hoc attempt to motivate UMS. The problems I am addressing in this dissertation are not made up to support UMS. Rather, they were there to begin with.

Premise 5 speaks of a theory being “unattractive.” Given a wide reading of this word, theories could be considered too unattractive because they are too complex, too short, written in English, are advocated by a particular author, or whatever. I
have a narrower notion of theory attractiveness. Attractive theories are ones that rules about rational theory selection would have us choose over more unattractive theories. So attractiveness is a property that different theories have more or less amounts of. Very attractive theories are that rational theory selection encourages us to endorse while unattractive theories are ones that, if we are being rational, we avoid.

We are familiar with the process of theory selection but we are not good at expressing exactly how we do it. Theories that are simple, elegant, and beautiful are to be preferred over complex, gerrymandered, *ad hoc* theories. Theories that solve more important problems are to be preferred over those that solve less important problems. Theories that solve more problems are to be preferred over theories that solve fewer problems. Theories that lead to less undesirable consequences are to be preferred over those that entail more undesirable consequences. Sometimes we cannot have it all, a simple elegant powerful theory might entail that we have to bite the bullet on a particular nasty issue. Complex theories that solve only relative minor problems might be easily adopted because there is no cost to them. Also, we have to consider *truth-potential*. Some theories are improbable but useful and do not lead us to bad consequences. In these cases we most weigh the likelihood of truth versus the other characteristics of the theory.⁹

Throughout the dissertation I will be appealing to the reader’s intuitions, which, I hope, are not much different from mine, about what solutions are more attractive than others. When I do this, I do not expect the result to be uniform or

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⁹ See Lewis, 1973a, p.73-4 for more on the theory virtues of strength, simplicity, and truth-potential. See Loux, 1998, p. 57-8 on theory selection in metaphysics and science.
unproblematic. What I do expect is that my account of the solutions will make a difference in how the reader chooses her theory. If she disagrees with my judgment then one of three things should have happened. She may disagree about the cost of a theory; disagreeing with me about whether or not a theory leads to a particular unfortunate consequence or whether or not a theory is as useless as I claim it is. She may disagree about the benefits of a solution; dissenting from my claim that the solution really has all the great consequences I claim for it. Or, she may disagree not with my account of the pluses and minuses of the solutions but with how I weighed these in making my judgment that a solution is more preferable than another. In this case we would be in a stand off.

The potential of a stand-off is not a reason to reject the project. First, I do not think we are in that position. When we consider UMS and its rivals, I think UMS is clearly better. If you disagree with me, it will most likely be because you disagree about the accuracy of my catalog of the virtues of vices of each theory. Second, I am not alone. Consider the following selection from Ted Sider:

A point of methodology should be kept in mind. There are several competing resolutions of the puzzles, each with advantages and drawbacks. We should prefer the one that has, on balance, the most important advantages and the least serious drawbacks. I myself think that the balance favors the stage view, but lacking any systematic theory of how to balance these considerations, my role is restricted to their inventory….Each account, including my own, has counterintuitive consequences. (Otherwise, the puzzles would not be so interesting.)¹⁰

¹⁰ Sider, 2001, p. 140.
Analytic philosophy is full of such passages. Often times, the best we can do is compare multiple theories and, if we think one is more attractive than the other, present the reasons that led us to that conclusion and hope that others feel the same way.

Suppose I have a group of problems that is solved by theory A. Further, suppose that theories B and C also solve the problems. Let there be one distinction between B and C. Let C be more attractive than B. I believe that attractiveness is a transitive relation. Thus, if A is at least as attractive as C, then A is more attractive than B. Note that this sort of move works only if we look at attractiveness “all things considered” and keep the same standards of attractiveness when we look at each pair. If we do not do that, then we may be in a position where A is more attractive than B and B is more attractive than C but A is not more attractive than C.

In the situation above I might consider C the “closest competitor” to A. A closest competitor for a theory must be such that it solves all the problems the theory does, is inconsistent with the theory (this provides for the “competition”), and is such that it is prima-facie reasonable for someone to prefer the closest competitor over the theory. There can be more than one closest competitor to a theory, but there need not be. Additionally, note that given the existence and reasonableness of a closest competitor to a theory, it is important for the partisans of a theory to show that, all things considered, their theory is more attractive than the closest competitor.

I am now going to clarify the consequence of premise 5. The conclusion to the argument is not that UMS is true. It is that we ought to accept UMS. There is an important distinction between these two conclusions: the former is a metaphysical
claim, the latter an epistemological claim. The epistemological claim is weaker than the metaphysical claim. We can see this by considering the following principle:

(Truth) If we believe we have a non-circular sound argument for the claim \( P \) is true, then we ought to accept \( P \).

The “non-circular” modification is in there because of the problems associated with:

(Truth*) If we believe we have a sound argument for the claim \( P \) is true, then we ought to accept \( P \).

Truth* is equivalent to:

(Absurd) If we accept \( P \), then we ought to accept \( P \).

For, suppose someone accepts \( P \). Then, with a little introspection he will come to believe he has a sound argument for \( P \). In particular, he will believe “\( P \), therefore \( P \)” is a sound argument. Thus, via Truth*, he ought to accept \( P \). Of course, Absurd is absurd and so we should stick with Truth instead of Truth*.\(^{11}\)

For most substitution instances of \( P \) we believe the corresponding version of Truth, and so it is extremely likely that if we accept the metaphysical claim, \( P \) is true, then we would accept the epistemological claim, we ought to accept \( P \).\(^{12}\) There is no principle that works in the reverse. The following principle is clearly false:

\(^{11}\) My thanks to van Inwagen for pointing this problem out to me.

\(^{12}\) There are some \( Ps \) such that there is no consensus about whether or not we ought to accept \( P \) given what we believe is a sound argument for \( P \). For example, what should my reaction be to a seemingly sound argument for the conclusion that There are no sound arguments? Also, suppose I believe of each individual lottery ticket that it is a loser, should I then conclude that no lottery ticket is a winner? Surely not. Such cases do not clearly refute Truth but make me hesitant to endorse Truth without qualification.
(Acceptance) If we believe we have a non-circular sound argument for the claim *We ought to accept P*, then P is true.

It is one thing to accept a theory, another to think such acceptance entails that the theory is true.

“Ought” is ambiguous. One ought to go to class. One ought to quit smoking. One ought not to torture babies for fun. One ought to take a pitch when the count is 3 balls, 0 strikes, and the pitcher has not been able to locate his fastball. One ought not to play cards for high stakes with strangers one meets on a train. These are different uses of the word “ought.” When we use the word “ought” we are arguing that a certain set of principles or rules prescribes a certain type of behavior. These may be the principles of morality, good health, success on the baseball diamond, or common sense. The consequence of premise 5 makes reference to the principles of rationality. When I say “we ought to accept a theory,” I am saying that the principles of rationality demand that we accept the theory. If it is true that we ought to accept a theory, then, if we do not accept the theory, we are irrational.

At this point a critic might charge me with false modesty. His claim would be that I am not really giving anything up. While he would admit that I am arguing for a weaker claim than I could, he would suggest that such a maneuver is not honest. After all, I do think UMS is true, and should be upfront enough to argue for that claim instead of the one I am arguing for. As it is, I am trying to sneak the metaphysical claim in via an epistemic backdoor.

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The modesty is not false. It is a reflection of what I think the strength of the argument is. I do not have any argument that moves from metaphysical statements that we would all accept to the conclusion that UMS is true. I wish I had such an argument. The best I can do is to suggest that, according to the rules of rationality, we ought to accept UMS. Here we can see clearly that I am giving something up. If someone rejects the rules of rationality that I rest premise 5 on, then they can reject my argument. I am in more vulnerable position than if I had a straight metaphysical argument.

1.3.2. Current Use

Premise 5 is a relative of this more general rule of rationality: If a theory is useful, then that gives us good reason to accept the theory. This rule or variations of it figures prominently in contemporary metaphysics and in this section I am going to look at some of these appearances. I will begin by looking at some examples in David Lewis’s work, Ted Sider’s book *Four Dimensionalism* and then examine Peter van Inwagen’s *Material Beings*.

There are three things that I hope to accomplish by doing this. First, I hope to show that premise 5 is not unlike many other principles that philosophers accept. Later in the chapter I will give a valid argument for premise 5. If you reject one of the premises in that argument, then for similar reasons the relatives of premise 5 that we look at will also need to be rejected. This adds to costs of denying those premises. It is one thing to deny an isolated principle, it is another thing to deny multiple principles that many authors have thought to be obviously true. Second, I hope that looking at principles similar to premise 5 will motivate the belief that premise 5 is
neither crazy nor *ad hoc*. Rather, premise 5 should be looked at as an expression of a common methodology. Finally, if anyone still remains unclear about what proposition is expressed by premise 5, then I hope that these other examples might serve to clarify matters.

In the first work Lewis argues for the adoption of an ontological theory based on the work he thinks that theory can do. He first claims that believing in the existence of uncountably many spatiotemporally isolated hunks of stuff (possible worlds) can provide philosophers the tools to advance their endeavors. It is a philosopher’s paradise. Then he writes:

What price paradise? If we want the theoretical benefits that talk of possibilia brings, the most straightforward way to gain honest title to them is to accept such talk as the literal truth. It is my view that the price is right...the benefits are worth their ontological cost. Modal realism is fruitful; that gives us good reason to believe that it is true.\(^\text{14}\)

Lewis believes that we have good reason to accept a theory if that theory is fruitful.

Next, in his paper “New Work for a Theory of Universals,” David Lewis begins with this paragraph:

D.M. Armstrong offers a theory of universals as the only adequate answer to a ‘compulsory question’ for systematic philosophy: the problem of One over Many. I find this line of argument unpersuasive. But I think there is more to be said for Armstrong’s theory than he himself has said. For as I bear it in mind considering various topics in philosophy, I notice time and again that it offers solutions to my problems. Whatever we may think of the problem of One over Many, universals can earn their living doing other much-needed work.\(^\text{15}\)

\(^\text{14}\) Lewis, 1986a, p. 4

\(^\text{15}\) Lewis, 1983a, p.8
Lewis does not endorse Armstrong’s approach, but does think that he should incorporate some of Armstrong’s theory into his own. He thinks this because universals help him in such topics as “duplication, supervenience, and divergent worlds; a minimal form of materialism; laws and causation; and the content of language and thought.”\textsuperscript{16} Based on both of these passages, it would be reasonable to think that Lewis endorses the general claim that utility should play a role in theory selection.

Next, let us look at this passage from Sider:

From these and other traditional puzzles about identity over time, a powerful case emerges for postulating a four-dimensional world of temporal stages. If we believe in four-dimensionalism, we can dissolve these and other puzzle cases; if we do not, we are left mired in contradiction and paradox.\textsuperscript{17}

In the above quote, it initially appears that Sider is endorsing a principle similar to premise 5. However, he ends with the strong claim that not accepting four-dimensionalism leaves us with paradox. This suggests that Sider believes that he is arguing that we should accept four-dimensionalism because the only other option is contradiction. We can resolve this tension by seeing that Sider then writes:

…for the case for four dimensionalism rests on the claim that only the four-dimensionalist can give a satisfactory account of the puzzles (or, more cautiously, that the four dimensionalist give the best account of the puzzles.)\textsuperscript{18}

\textsuperscript{16} Ibid.

\textsuperscript{17} Sider, 2001, p. 10.

\textsuperscript{18} Ibid.
These two passages are illuminating because they reflect a certain amount of double-mindedness in contemporary metaphysics. Some, like Lewis, choose theories based on usefulness unashamedly. Others, like Sider, hope to show that if we do not accept a theory T, then the alternative is paradox. However, this second group recognizes the limitation in that strategy and frequently (if not always explicitly) falls back into an argument pattern similar to Lewis. Finally, there are some that reject premise 5 and relatives of it. I will now turn to a member of that final camp.

I now want to look at a work that poses a harder case for me. In *Material Beings* van Inwagen does not begin the book with anything like the passages, such as the ones above, which can be found in Lewis’s work. Rather, we read that:

I [van Inwagen] have come to hold the theory presented in this book because it is sort of vector sum or resultant of a great many of my metaphysical convictions…The theory presented in the book should be viewed from that perspective as a theory that satisfies those constraints…

What we get in this passage is something very different from Lewis. The quote suggests that van Inwagen has arrived at his theory by deduction from metaphysical premises and has not relied on the usefulness of the theory to do any work for him. It is true that van Inwagen admits that his theory is only a theory that satisfies the constraints. He does not arrive at his conclusion by straight deduction. But we also do not get a claim that his acceptance of the theory is a result of utilitarian considerations. The suggestion is that deduction from these principles leaves us with

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very few options, and the theory presented here is one that satisfies the criteria and is not implausible.

In fact, I think that is a fair description of how the book reads. There is, however, a hint that perhaps van Inwagen is also committed to some sort of principle similar to premise 5. Later in the book, when he discusses the failure of various theories to successfully answer the Special Composition Question, he writes:

Why does a philosopher study material objects? One reason, surely, is this: He sees paradoxes in the homely world of everyday objects…What a philosopher would like is an answer to the Special Composition Question that would at least shed some light on these ancient puzzles. I don not think he will get much light from any Series answer…No such answer will even suggest or lend any plausibility to any purported solution to any of the great, intractable paradoxes or the great philosophical puzzles about the existence and identities of material objects.20

The impression I get when I read this passage is that one reason that we should reject certain theories is that they are not useful. A successful theory is one that helps us solve “great philosophical puzzles.” However, van Inwagen goes on to say:

Still, the universe may be disinclined to make things easy for the philosopher. Perhaps it is simply a feature of composition that an answer to the Special Composition Question…will simply not tell us what we need to know to adjudicate hard cases…But it would be nice [author’s italics] if we had an answer to the Special Composition Question that suggested ways of adjudicating these hard cases. The answer that I shall propose in Section 9 will provide us with some guidance in hard cases.21

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20 Ibid., p. 69-70.
21 Ibid., p. 70-71.
Thus, ultimately van Inwagen would reject the claim that we ought to think his theory is true because it is useful. This goes to show that while I believe principles similar to premise 5 are common, they are not accepted by everyone.

In this section I have presented representative work from some important metaphysicians. Two have endorsed some sort of principle that is similar to premise 5. If you deny premise 5, then likely you will have to deny principles that serve as an important basis for much contemporary metaphysical work. Also, we can see that premise 5 does not come from some sort of metaphysical primal ooze. It is a natural specification of methodological principles that are frequently found in the literature.

1.3.3. Some Remarks on Premise 5

Before I give the argument for premise 5 I want to make a couple of remarks. First, I want to contrast the approach of the dissertation with another type of approach one could adopt. Second, I want to talk about two positions I hold that make premise 5 more intuitive. Both of these points will help illuminate the motivations for premise 5 and my defense of it.

Given the way I have set up philosophical problems, one could take each of the discussions of the problem and make them out to be a sound argument for the conclusion that UMS is true. For example, suppose I have a problem composed of the incompatible propositions P, Q, and R. Let’s say I then argue that we should abandon one of them, say Q, but that such abandonment is not as costly because we can accept UMS. We could reconstruct an argument as follows:

1. If ~Q, then UMS is true.
2. \(~Q\)

3. Therefore, UMS is true.

One could then take each of these arguments and conclude that the *real* structure of the dissertation is merely 3 arguments in support of UMS. There would be no need for a bigger argument or premise 5. After all, what would premise 5 say? It would be merely Truth. Further, it would be unclear why it matters that there are 3 arguments. If one of them is sound, then the others do not matter. If none of them are any good, then combining them does not help. The only reason to have multiple arguments would be in case one of them fails.

The above account would be an unfair reconstruction of the project. I do think the problems could be set up in such a way that they are independent arguments for the conclusion that UMS is true, but I do not think this is the best approach. Rather, the problems are meant to show off the usefulness of UMS, and thus the number of them does matter. One of my hopes for this project is that the reader will come to see how useful and interesting UMS is. Perhaps she will apply it to one of her own philosophical puzzles. Then, if all goes well, she will come to accept UMS. When selecting a theory, the whole picture has to be taken into account when weighing whether or not to accept a theory.

Additionally, approaching the dissertation in the way I have emphasizes the fact that we come to philosophy with a set of beliefs that we are reluctant to give up. This conservatism is rational and justified. By displaying the fact that UMS can solve multiple problems I can show how adopting UMS will limit the damage to our current
web of belief. For, each problem asks us to give up something. If we give up OMS in one case, and adopt UMS, then we can avoid giving anything up in the other cases.

I will now touch on two positions that motivate premise 5. First, I am a theist. As pointed out by van Inwagen in the passage from Material Beings, one reason someone might reject premise 5 is because of a worry that the universe is philosophically unkind. I think theism makes this hypothesis unlikely and can support the claim that the universe is in fact designed so that we can succeed in learning about it. I will not elaborate on this position further but it does serve, for me at least, as one of the sources for the intuition that premise 5 is true.

Second, I am an externalist with regards to epistemic justification. Given certain types of externalism, it is perfectly reasonable to think that most of one’s beliefs are justified and that one has no way to tell if ones’ beliefs are justified. This attitude is what contributes to the epistemic conservatism with which we approach philosophical problems. Further, I believe it makes more palatable principles such as premise 5 that encourage us to take up a belief based on the process rather than on a specific argument. I will not go into this connection in further detail but will leave it for others to explore.

1.3.4. The Argument for Premise 5

As promised, I will now present my argument for premise 5:

(P51) If premise 5 is false, then either the bar for acceptance of a theory is set extremely high or utilitarian considerations should not play a major role in theory selection.

(P52) The bar for acceptance of theory is not set extremely high.
(P53) Utilitarian considerations should play a major role in theory selection.

Therefore, premise 5 is true.

The argument is valid and I will now give reasons to support each of my premises.

As for the first premise, assume premise 5 is false. If premise 5 is false, then we know that a theory (call it T) can solve three important philosophical problems and be more attractive than its closest competitor, and still be such that it is not the case that we should accept it.

Why, in general, should we withhold acceptance of a theory? Three reasons (and only three reasons) come to mind. First, we might not have any reason to accept it, and thus we should remain agnostic to its truth. Second, we might have good reason to think it false and lack enough evidence to override such considerations, and thus we should reject it (or, if the plus and minus columns come up equal, remain agnostic). Third, we might have better reasons to accept a competitor of the theory.

Given that we, at least, withhold acceptance from T in this case, let us see what follows from that fact.

As for the first reason, it only applies in this case if the usefulness of a theory does not give us reason to accept it. If fruitfulness does constitute a reason to accept a theory then we should accept T given that it can solve three important philosophical problems. So, one possible consequence of premise 5 being false is that utilitarian considerations should not play a role in theory selection.

One might grant that utilitarian considerations play a role but argue that there are not enough to motivate acceptance of a theory. One might claim that we should accept a theory only when we know for sure that the theory is true. It is easy to see
that merely solving problems does not guarantee that a theory will be true and so we should withhold acceptance from T. (Another reason to insist that we must be sure of a theory T before we accept it is that abandoning the claim leads to lottery paradoxes. For example, suppose you are not sure that a certain ticket T will lose. After all, it might win. However, you come to accept that it will not win and by parity of reasoning you come to believe this of every other ticket. It seems like in this case you then ought to believe that no ticket will win. Some ticket will win, though, and so you ought to withhold belief in cases where you are not certain. If someone objected to premise 5 based on this line of argument, I would argue that we ought to deny the claim that you can infer from your beliefs about each individual tickets that no ticket will win. Part of the cost of adopting fallibilism is that sometimes you have multiple rational beliefs such that you know that one of them must be wrong.) If this reasoning is cogent, then the reason we should withhold acceptance from T is because the bar of acceptance is extremely high (for, the bar is set here as high as it can go). So, another possible consequence of premise 5 being false is that the standards of theory selection are set extremely high.

What about the second reason? Might we fail to accept T for this reason? No. If it were the case that on balance we had enough evidence against T to at least remain agnostic to it (if not reject it) in face of its success, then it would not be able to solve three important philosophical problems. For, if T could solve problems, then it is the case that we have measured its failings and deemed them acceptable.

Finally, in this case we should not withhold acceptance of T because there is a better theory out there. As we stipulated, if premise 5 is false, then T is more
attractive than its closest competitor. Thus, we should choose T over its rivals, not vice versa.

If premise 5 is false, then we withhold acceptance of T even though it is useful and more reasonable than its rivals. The only two epistemically possible truths that could justify this withholding are a) utilitarian considerations do not play a role in theory selection or b) the standards of theory selection are set extremely high. P51 is true.

Let us deal with the latter possibility first. Is it the case that we have to be certain of a theory’s truth before we accept it? Is it the case that the possibility of a metaphysically unfriendly world, where only improbable theories reign, should make us reject any theory that does not prove to us we do not live in such an inhospitable place? No, it is not the case.

First, in every day life, while we are certain of some propositions, we are less certain of others. For example, I take it that many stock analysts rationally believe that some stock S will beat Wall Street’s earning estimates and thus purchase the stock. However, I do not think we would describe any of these analysts as being certain that their belief is true. Many rationally believe that God exists. Yet only a small percentage of these believers would describe themselves as certain that God exists.

Second, in general we do not require that a person have evidence that guarantees the truth of a belief before he accepts it. I accept the proposition The Sun will rise tomorrow. We do not expect elementary school students to reject the proposition that The North won the Civil War, even though the evidence they have for
it does not guarantee its truth. There are many propositions that are rational to accept; despite the fact the acceptor has never been in a position to guarantee the truth of the proposition.

Third, with regards to philosophical theories, we do not require that they be proven beyond a shadow of doubt, or be proven using only premises that we are absolutely certain of. No one, for example, considers Lewis irrational for his acceptance of the thesis of a plurality of worlds. Even though many of us consider that theory manifestly false, and \textit{a fortiori}, consider the theory not proven using only premises we are certain of. Philosophical theories are rationally accepted all the time based on less than overwhelming evidence. As Plantinga puts it:

\begin{quote}
Were we to believe only what is uncontested or for which there are incontestable arguments from uncontested premises, we should find ourselves with a pretty dull philosophy. Perhaps we should have \textit{Modus Ponens}; certainly not much more. The policy of accepting only the incontestable promises security but little else.\textsuperscript{22}
\end{quote}

In philosophy, like in life, the standards for theory acceptance are in fact low. There is not a large gap between what we tolerate outside the classroom and what we tolerate in it. As Armstrong writes, “There is no certainty in philosophy. No philosopher can \textit{know} that his or her arguments are true.”\textsuperscript{23} We expect a person to have reasons for choosing the theories that they do, but we do not expect these reasons to rule out all possibility of error. The reasons we give to accept a theory can be, and almost always are, less than conclusive. P52 is true.

\textsuperscript{22} Plantinga, 1974, p. 221.

\textsuperscript{23} Armstrong, 1997, xi.
If premise 5 is false and, P51 and P52 are true (as I have argued), then P53 must be false. I will conclude this section by giving my reasons for thinking that P53 is in fact true. If you share my reasons, then you too should think premise 5 is true.

Utilitarian considerations should play a role in a theory selection. One reason to believe this claim is that if it is false, then a large chunk of philosophy is misguided. We have looked above at the works of three metaphysicians. Many others’ works could be examined and be shown to rest on the general rule: If a theory is useful, then that gives us good reason to accept the theory. This rule entails P53. If we reject P53 then we must reject the general rule it follows from. We have a choice then, we can believe P53 or hold that a very high number of professional philosophers are wrong about what counts in selecting a good philosophical theory. I find the second disjunct much more implausible than the first.

One might respond by pointing out that most of the philosophy literature must be misguided because most of the literature must be false because of the law of non-contradiction. Thus, we shouldn’t find it all surprising that a very high number of philosophers are wrong about what counts in selecting a good theory. In response, I should clarify what I mean by “misguided.” A theory can be false in my view but not “misguided.” A theory like this would be one that while false, is properly reasoned for and is reasonable to accept. The problem with denying P53 is not that it would make much of philosophy false (for as the critic pointed out, this is probably the case) but that it would make much of philosophy an irrational enterprise. But philosophy is not an irrational enterprise and so P53 must be true.
Second, fruitful theories are often, but not always, true theories. I have no idea how to prove this in a rigorous, mathematical way, but a quick examination of everyday theory acceptance bears this out. Suppose you are faced with several puzzling phenomena. There are little droppings on the basement floor. The dog food bag has holes gnawed into it. Little pitter-patters can be heard in the basement ceiling. The natural thing to do is believe that a mouse is living in the basement. You have not perceived a mouse, heard testimony about the mouse’s existence, nor deduced that there is a mouse, but that is the rational thing to believe. Further, isn’t the case that when we go to catch the mouse we succeed? Isn’t it the case that we are almost always right in our belief that there is a mouse? Fruitful theories about pests are usually verified to be true theories about pests.

Another example, suppose Fred is managing a baseball team. The team is struggling, so Fred decides to do something novel. He manages the team on the theory that stealing bases, hitting sacrifice flies, and bunting are counterproductive. Instead, the most important thing in baseball is to conserve outs. Lo and behold, the theory is fruitful and Fred’s team recovers from its early struggles. Further, if we investigated Fred’s theory, we would find it to be true. In sports, fruitful theories not only lead to success, but are very often true theories about the nature of the game. Typically, we discover this latter fact after being stimulated by the theory’s success.

It is true that fruitfulness and truth might merely be accidentally connected. But given the fact that truth and utility are so often found together I find this

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24 See *Baseball Between the Numbers*, by Baseball Prospectus, for a good argument that stealing bases, sacrificing and bunting is not the best strategy for run production.
implausible. Further, there is at least a somewhat plausible idea that explains their connection. Truth is a cause of the fruitfulness. Thus, when we find a useful theory it suggests that truth might be at work.\(^{25}\) (Or, more cautiously, we know that the theory is approximately true or on the way to being closer to the truth than what we had before. Some theories, like Newton’s physical theory, are false but contain enough truth in them to often times put the acceptor of them in a much better epistemic position that he was in before.)

Finally, even scientists, those we would expect to have a skeptical eye towards selecting a theory based on its utility, operate in accordance with P53. Consider the development of string theory. String theory, while not accepted by all or even most physicists, is not considered an irrational theory to accept. This is true in spite of the fact that at this point there are only utilitarian considerations in favor of it. As Brain Greene, a supporter of string theory and a professor at Columbia, writes:

although string theory has the potential to be the most predictive theory that physicists have every studied—a theory that has the capacity to explain the most fundamental of nature’s properties—physicists have not as yet been able to make predictions with the precision necessary to confront the experimental data.\(^{26}\)

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\(^{25}\) See p. 1084, Van Frassen, 1980. Van Frassen proposes an alternative to the view that the fact that theories are true explains their fruitfulness. He believes that theories we take to be true are fruitful because they have been selected for that trait. Unfruitful theories disappear fast and never get a chance to be considered true. I admit that his view, if correct, undercuts the argument that truth offers the best explanation for why a theory is fruitful. However, his view does not explain the correlation we seem to find between truth and fruitfulness in everyday life.

\(^{26}\) Greene, 1999, p. 211.
Yet, string theory is accepted by many scientists\textsuperscript{27}, and not considered irrational by the remainder. String theory is merely potentially useful; and for that reason many physicists think there is something to be said for it.

None of this is to say that we must accept a theory if it is useful. Rather, these three reasons lead me to believe that P53 is true. Given what I have said about P51 and P52, we can conclude that the argument for premise 5’s truth is sound. Premise 5 is true.

1.3.5. Some Objections

A formidable objection to my argument could go as follows:

“Premise P51 is false. The disjunctive that forms the consequence of P51 is not exhaustive. Instead the following is true:

\[(P51^*)\text{ If premise 5 is false, then either the bar for acceptance of a theory is set extremely high, or the theory is not plausible, or utilitarian considerations should not play a major role in theory selection.}\]

“I admit that premise 5 would be false if the bar for acceptance of a theory is set extremely high or if it was the case that utilitarian considerations should not play a major role in theory selection. Further, I accept premises P52 and P53. However, I

\textsuperscript{27} Do scientists really accept string theory? Here’s a response to an interview question that Brian Greene gave: “Physicists often use the term elegant to describe a solution to a problem that is as powerful as it is simple. It's a solution which cuts to the heart of an important problem with such clarity that it almost leaves no doubt that the solution is either right or at least on the right track. And string theory is just that kind of solution. It provides the first way of putting quantum mechanics and general relativity together -- that is, merging the laws of the small and the laws of the large -- and it does it in such a sleek manner that it is quite breathtaking. And the term elegant really describes that kind of solution.” Many other similar answers from other scientists can be found (and listened to) on www.superstringtheory.com To be fair, some scientists find the above attitude cocky and misguided. These scientists tend to focus on experimentation instead of theory.
think that it is permissible to withhold acceptance of a theory, even if it solves three important problems, if I do not find the theory plausible.

“Consider Lewis’s theory of possible worlds. That is a theory that solves many important problems. Yet, certainly, because of its great implausibility, I am within my rights in not accepting it. This is a counter example, then, to premise 5 and supports the acceptance of P51*.”

The objector here has failed to adequately account for the antecedent in premise 5. It is true that Lewis’s theory solves important problems. However, it is not true that it is more attractive than its competitors. Magical ersatzism, or perhaps linguistic ersatzism, should be at least as attractive to the objector as Lewis’s theory given that he find Lewis’s theory so implausible. Thus, the rejection of Lewis’s theory because of its implausibility is not a counterexample to 5 and thus not a reason to accept P51*.

However, the objector might respond as follows: “Suppose someone does not know of magical, pictorial, linguistic, or any other sort of modal ersatzism. It seems that still this person is within their rights in rejecting Lewis’s theory because it is so crazy, because it is not plausible. Premise 5 is false because a theory has to also be plausible for it to be a duty for someone to accept it. Thus P51* should be accepted.”

Again, I do not think the objector has adequately taken into account the antecedent of premise 5. Suppose someone is ignorant of other theories of modal ontology and finds Lewis’s ontology implausible. In this case, they ought to deny that Lewis’s theory solves the important problems. If Lewis’s theory is so implausible that it allows the person to withdraw acceptance from the theory in the
absence of any replacement then it must not be able to solve the important problems it claims to solve. For, if the person believes a theory can solve a problem then he must believe that the theory is consistent and more plausible than the statements which constitute the problem. If a theory really does solve three important problems, and is more attractive than its competitors, then we should accept it, even if it is implausible.

Another objection to premise 5 may be expressed like this:

“Suppose Phil has never done philosophy before. Further, suppose that he believes theory T solves three important problems and he is not aware of any problems with T or aware of any competitors to T. Shouldn’t Phil take a step back and merely believe that there are some good reasons to believe in T but not believe in T itself? After all, philosophy is hard work. Being the novice that he is, Phil should hesitate to accept a philosophical theory, even if he thinks it solves problems. While it is true the ability to solve problems is good for T, it does not place us under any obligation to accept T because it might turn that out are own ignorance and inexperience gives us a pass on accepting any philosophical theory. Thus, the antecedent to premise 5 can be satisfied by a theory, but it still can be the case that we should not accept the theory.”

I do not think Phil should accept T. But I also do not think that Phil should believe that T solves any problems and so I do not think the antecedent in premise 5 is satisfied. To solve a problem, a theory must clearly demonstrate that one of the problem statements or the belief that the statements are inconsistent should be rejected. If Phil is such a novice to philosophy, then he should begin withholding his beliefs at an earlier point. He should merely think that a theory T is a potential solution to three problems. If, after learning more, Phil is convinced that T really
does solve three important problems and is better than its rivals, then and only then, is he under an obligation to accept T.

These objections bring out an important point about the structure of the dissertation. By using such a strong notion of “solve” I have made premise 5 less controversial at the cost of making premises 1-3 more difficult to prove. This move has two major advantages. First, methodological questions are properly directed towards premise 5, while other worries are filtered to specific premises. If the notion of “solve” were weaker, then a critic may be able to attack premise 5, even though she and I agree on methodology.

Second, suppose a reader is like Phil with regards to some but not all of the problems that I discuss. This reader can specifically object to one (or more) of premises 1-3, and argue that I have not been exhaustive enough to convince her that I have solved the problem. If she is truly like Phil and a novice with regards to a certain problem, it is unlikely I could be exhaustive enough to show her that UMS really does solve the problem I say it does. This seems entirely appropriate to me. In this case the reader can agree with my methodology but disagree with a specific premise that she is unconvinced of. By doing so, she can appropriately critique me by claiming that I have not done enough to prove my point. Perhaps even experienced philosophers will feel this way with regards to one of my premises. If so, then their critique of the specific problem they find underdeveloped would be perfectly appropriate. Further, it if turns out that the reader is only unsure of one or two of premises 1-3 then she will, rightly, have to consider whether or not the problem or problems UMS does solve is enough to compel her accept UMS.
I will now consider one last objection. Van Inwagen has written:

That Owl can spell “Tuesday” is no proof of his erudition—not unless he can spell it right; that Owen Glendower can call spirits from the vasty deep is no proof of his sorcerous powers—not unless the spirits do come when he calls for them. And it is no argument for Concreteism that is provides a reductive analysis of modality—not unless that analysis is right.28

The above quote appears in a passage where van Inwagen is considering the merits of Lewis’s modal realism. At this point, it appears that the modal realist is up 1 to 0 against the abstractionist because modal realism can do one job that abstractionism cannot. Namely, it can provide a reductive account of modality. Van Inwagen objects and claims that modal realism commits us to the existence of things that do not exist. Thus, he thinks the score is actually -1 to 0. The modal realist does not get credit for their analysis because it is incorrect. Further, they suffer the burden of believing something incredible.

This objection can be applied to UMS. Suppose UMS can really solve three important problems. We can conclude from this that UMS must be true because in order to solve a problem a theory must be true. (If it was not true then it did not actually solve the problem.) If the above reasoning is correct, then premise 5 is trivial and the discussion in this chapter misguided.

I do not think the above reasoning is correct. We should, of course, consider a theory that we know to be false incapable of solving any problem. It is, after all, incredibly implausible. However, it is possible for a theory to solve a problem even though that theory happens to be false. Solving problems is a human activity done

28 Van Inwagen, 1986, p. 221.
within the limits of what we know. As I mention above, for a theory to solve a problem it merely has to be such that it is the most reasonable to believe out of many contending solutions. This is compatible with the theory being such that it also happens to be false. Thus, premise 5 is not trivially true.

Finally, let me end this discussion of objections to premise 5 with a reminder. The costs of a theory under question (in this case UMS) are taken into account when the theory solves a problem and when we compare it to its competitors. Remember, if a theory solves a problem, it must have something going for it as it clearly demonstrates that we should reject a statement that we have prima-facie reason to believe is true. Any greatly implausible theory that we would be hesitant to accept will not be able to move us enough to reject a statement that we find quite plausible. This is the case even if we know we have to reject some statement. Second, a theory has to be better than its rivals. An inconsistent or wildly implausible theory is not likely to survive this competition.

1.4. Conclusion

In this chapter I have briefly introduced OMS and UMS, given the argument for UMS that will structure the dissertation, clarified premise 5, and, finally, given the reasons I have for thinking premise 5 is true. Not all will be convinced premise 5 is true. If you do not think premise 5 is true, then I ask that you view the dissertation in a different light. Consider it an argument for the conclusion that if premise 5 is true, then we should adopt UMS. This conclusion is weaker than I would prefer, but is interesting nonetheless. For many philosophers accept premise 5, and it would be
interesting to know that such acceptance should lead them to adopt UMS.

Furthermore, I find UMS and to be an intrinsically interesting theory. Its application to various problems in philosophy, while maybe not solving the problem, at least sheds new and interesting light into them. Even if UMS is false, it is a theory worth thinking about.
CHAPTER 2:
ORTHODOX AND UNORTHODOX MODAL SEMANTICS

In the last chapter I presented my argument for the conclusion that we should reject Orthodox Modal Semantics (OMS) and adopt Unorthodox Modal Semantics (UMS). Additionally, I argued that premise 5 of the argument is true. In this chapter I am going to leave the argument and discuss in more detail both OMS and UMS.

First, I will present OMS. I will begin by considering thesis OMS5: A proposition P is true at a world W iff if W were actual, then P would be true. After clarifying what truth at a world amounts to in OMS, we will be in position to consider theses OMS1-3. Finally, I will discuss OMS4, completing my presentation of the fives theses that make up OMS.

Before moving on to contrasting OMS with UMS, I will look at how OMS is used in philosophical literature. This section will start with a look at the origins of OMS in Saul Kripke’s semantics for modal logic. I will then show how leading metaphysicians, such as David Lewis, Alvin Plantinga, and Peter van Inwagen, are explicitly committed to OMS. I will conclude this interlude by demonstrating the usefulness of OMS by pointing out some uses of OMS in debates in epistemology and metaphysics.

Finishing with OMS, we will next consider UMS. I will first present five theses, UMS1-UMS5, which are opposed to the five theses that compose OMS. UMS
will not be as straightforward as OMS and will require some explanation. In particular, I will explain what I mean by a certain “depth” of a state of affairs and I will explain the distinction I make between explicit and implicit truth in a world. We will then be in a position to revisit UMS and see how it differs from OMS. Finally, I will answer some initial objections that the reader may raise against UMS.

I will conclude Chapter 2 with a brief statement about what I am not trying to do in the dissertation. Specifically, I will address worries some might have over UMS’ apparent commitment to possible world realism. My goal is not to present a metaphysical theory, but a semantic theory. I will attempt to convince the nominalists that their worries are misplaced. I will end by arguing that while UMS is not a metaphysical or epistemological theory, it does have an impact on such debates. This will set the stage for the next three chapters where UMS is applied in an attempt to solve various problems.

2.1. Orthodox Modal Semantics

The following five theses compose OMS:

**OMS1** Sentences of everyday language that are equivalent to “Possibly P,” express a proposition that is equivalent to There exists a possible world at which P is true.

**OMS2** Sentences of everyday language that are equivalent to “It is impossible that P,” express a proposition that is equivalent to There does not exist a possible world at which P is true.

**OMS3** Sentences of everyday language that are equivalent to “Necessarily P,” express a proposition that is equivalent to Every possible world is such that P is true at it.
(OMS4) Sentences of everyday language that are equivalent to “If it were the case that P, then it would be the case that R,” express a proposition that is equivalent to *There does not exist a world where P is true and R is false and which is more similar to the actual world than all the worlds in which P is true and R is true, or P is impossible.*

(OMS5) A proposition P is true at a world W iff if W were actual, then P would be true.

I will begin by discussing thesis OMS5.29 Thesis OMS5 is crucial to the understanding of the other four theses because it clarifies what the “true at” locution that is at use in every other thesis. This is not to say that by explaining OMS5 we can somehow reduce possibility and necessity to our explanation. The five theses are circular. OMS5 will make use of a counterfactual that is to be understood in terms of OMS4. OMS4 will depend on OMS5 and OMS3. OMS3 also depends on OMS5. The best we can do in explaining these concepts is to start somewhere and hope that we can come to some sort of basic understanding on which we can build up from.

The concept of actuality plays a central role in OMS5. For a time, there was significant disagreement about what it meant to talk of the actual world. Adams put the question thus, “What is it for a possible world to be the actual world?”30 Two types of answers to this question have been given. The first type of answer is a possibilist answer. This view holds that “there are nonactual possible worlds and that the notion of a possible world is not to be analyzed in terms of actual things.”31 The second type of answer is the actualist answer. This answer is committed to the view

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29 The following discussion of OMS5 relies heavily on van Inwagen, 1986, p. 211-5.

30 Adams, 1974, p. 191.

31 Ibid., p. 203.
that possible worlds are a part of this world, they are existing objects. According to this view, we should analyze talk of worlds as talk of existing things. Philosophers who work in modality have adopted actualism almost uniformly.\textsuperscript{32} In this dissertation, I will respect this consensus and assume actualism is true.

What does the actualist mean when he talks of the actual world? The actual world is one that obtains. It is one that really is the way things are. Suppose you took a state of affairs (maximal or non-maximal) to be a proposition; then a state of affairs (maximal or non-maximal) would be actual iff it is true. For a world to be actual is for it to hook up to the universe completely, for it to map out the universe and its truths accurately.

Given the actualist conception of actuality, OMS5 is a natural extension. For suppose a world W was actual, what would be true-at W? It seems obvious that the answer is anything that is true. The “at” of “true-at” is merely trying to point us into the direction of evaluating truth according to the way W says the world is, and not according to the way the world really is. To see this, imagine that we were to hold this view:

A proposition P is true at a world W iff P is true.

This view is obviously false. For certainly it is not the case that given a world in which there are no clowns that \textit{There are clowns} is true at that world. We must not look to our world for truth at other worlds, we must look “inside” the other worlds to

\textsuperscript{32} A notable exception to this generalization is Lewis. As I promised in Chapter 1, I will present a revision of these claims that is acceptable to the concretist. It should be pointed out that while Lewis does disagree with the actualist on what the word “actual” means, they do agree with respect to a more important claim. The both agree that when we talk of what exists with our quantifiers “wide open” we can say that possible worlds exist. Possibilists that are not concretists do not endorse this claim.
see what would be true in them if they were so fortunate as to obtain. If there were a slogan for OMS5 it would be “Truth-at-a-world depends on what is true simpliciter at that world.”

I would like to point out one more thing before we leave OMS5. Let an impossible world be an inconsistent maximal state of affairs. Suppose there are two distinct impossible worlds, W₁ and W₂. Consider this principle:

**(Distinctness)** If two maximal states of affairs, X and Y, are distinct then it must be the case that they are different ways the world could be; it must be the case that if either X or Y was actual, then some proposition P is true at one state of affairs but not at the other.

Many find Distinctness plausible. The last clause of Distinctness is intended to cash out the intuition behind “they are different ways the world could be.” If Distinctness is true, then W₁ and W₂ must be such (via OMS5) that there is some P such that if W₁ were actual, then P would be true but if W₂ were actual, then P would be false. But, for every proposition, that proposition is true if either W₁ or W₂ is actual because they are impossible worlds and every truth follows from a contradiction. So we are stuck with every proposition being true at W₁ and W₂ (again, via OMS5) but there being some proposition that is not true at either W₁ or W₂. There are three options, we can reject Distinctness, reject OMS5, or reject the assumption that there can be two distinct impossible worlds. This trilemma explains why most philosophers think there can be only one distinct impossible world. (Notice, I did not say that there can be only one impossible world. Presumably we can still have two impossible worlds that are indistinct. That is, two worlds that differ not based on how they represent the
world. Such a difference would have to be haecceital.) I will revisit Distinctness later in the chapter.

I will now discuss OMS1-3. These three theses are the most widely accepted and most used theses of OMS. The phrases “possibly P,” “impossibly P,” and “necessarily P,” are closely related. If we say that P is possible, then we are committing ourselves to the conclusion that it is not impossible that P. When we say that it is necessary that P, we are committed to the claim that it possible that P. Finally, when we speak of P being impossible, then we are saying it is necessarily the case that ~P. OMS respects these relations. For example, if we utter “Possibly P,” we are expressing a proposition equivalent to the proposition \(\text{There exists a world at which } P \text{ is true.}\) This existential claim entails \(\text{There does not exist a world at which } P \text{ is true is false.}\)

I have mentioned that one difference between OMS and UMS is that UMS is context sensitive in a way that OMS is not. This implies that OMS is context sensitive. It is, and I want to briefly expound upon that fact. Sometimes we say truly things like, “It is impossible for anything to travel faster than the speed of light.” Other times, we might say things like, “It is impossible for the Cubs to win the World Series with the lineup they have.” These claims on a flat footed reading using OMS imply that there is no possible world in which anything goes faster than the speed of light and that there is no possible world in which the Cubs win the World Series with the lineup they have. This reading should leave us uneasy. Normally, we do not think based on these statements that it is a necessary truth that nothing travels faster than the speed of light. We do not think there is some contradiction implied by
thinking that a) the Cubs win the World Series and b) their lineup is the way it is. This tension is the result of the familiar phenomena of us not always talking about possibility *simpliciter* but instead of what you might call “restricted” possibility. 33

There are all sorts of restricted possibility; social, reasonable, technological, physical, nomological, political, etc. Sometimes, when we say “Possibly P,” we do not mean P is possible *simpliciter*, we mean P is, for example, reasonably possible. Consider a conversation you might overhear in which the statement “It is possible that Senator Byrd retire this year” is uttered. Presumably, the speaker meant to convey news; she meant to convey non-trivial truth to the hearer. Yet, it would hardly be surprising that it is not a necessary truth that Senator Byrd not retire. However, it would be interesting to know that in a world close to ours, Senator Byrdretires. To say that Senator Byrd’s retirement is possible is to say there is some world, not just any world, but some special world, a world that is close to us and has certain features, at which Senator Byrd retires.

Restrictive possibility works as follows. Some speaker utters “Possibly P.” The context of the utterance makes clear that it is not unrestricted possibility that it is at issue. Rather, some sort of restriction R is in place. R, generated by the context, restricts the domain of quantification of OMS1. R stipulates some subset of all the

33 Some, unfortunately for them and me, might wonder what this is. I cannot reduce possibility *simpliciter* to something the questioner is likely to already understand. Rather, I’ll just say that possibility *simpliciter* is metaphysical possibility, it is broadly logical possibility, it is the broadest notion of possibility, it is unrestricted possibility, and it is possibility tout court. See van Inwagen, 1998a, 248–9.

34 I should note that the phenomenon of restricted possibility also affects UMS. I am not going to discuss how this works in the case of UMS because the mechanics of it are essentially the same as in the case of OMS.
possible worlds as special. Call this set S. To say, “Possibly P” still means *There exists* ... but the “exists” here conveys not existence in the set of all worlds, but existence in S. Suppose sitting in your basement one day you exclaim, “There is a mouse!” The statement is interesting because we interpret it to mean that there is [in the basement] a mouse. Further, suppose you tell a friend heading to the kitchen that there is no beer. You do not mean there is no beer, period. You mean there is no beer in the kitchen. It is in this way that restricted possibility claims function. Thus, OMS1-3 are context sensitive because the domain of their quantificational claims can be specified by context.

There are two interesting facts about this sensitivity. First, there is a presumption in favor of unrestricted modal talk. The context has to do some work to restrict the talk. Otherwise we take the phrase “Possibly P,” to mean merely possibly P. The reason we do this is twofold. First, in everyday speech we seem to prefer probability talk over restricted possibility. While conversations like the one above involving Sen. Byrd occur, as often as not, the response to such claims is “of course it is possible, but is probable?” Or in the case of the Cubs, someone might reasonably respond by saying “it is not impossible, just highly improbable.” Interestingly, this phenomenon seems to be an exaggerated instance of a more general trend to force the rules of conversation to only use context sensitive terms when they apply to their “maximal application.” For example, in the use of the word “flat” it is acceptable to force your conversational partners to only use “flat” to describe perfectly smooth
services. Once this is done, it is very hard to then change the rules to allow phrases such as “Kansas is flat,” to be spoken truthfully.\footnote{Lewis, 1979a, p. 245. Also, see Unger, 1975. “Possible” is an absolute term, like flat. Once the standards are changed in a conversation to allow any type of possible world to satisfy the claim \textit{There is some possible world}... then we are violating conversational protocol if we ignore that type of world in the rest of the discussion. Additionally, notice that it sounds strange to say “Proposition P is possible, but proposition R is more possible.” This is additional evidence that the word “possible” is an absolute term. I’ll have more to say about this when I present UMS later in the chapter.}

Second, philosophers almost always prefer to talk of broad logical possibility. In almost every philosophical context it is assumed that unrestricted possibility is being discussed. This has the consequence that when “Possibly P” is uttered in philosophical contexts very little additional work by the context is needed to indicate that the set of the worlds being discussed is all of them. The reason for this is that philosophers are interested in claims that are supposed to be necessarily true in an unrestricted sense. Thus, it takes extra work in a philosophical context if one is going to restrict oneself to talking about something other than broad logical possibility and necessity.

I now turn to OMS4. OMS4 is clearly the most controversial of all the theses of OMS. In fact, to describe OMS4 as a part of philosophical orthodoxy may be stretching the truth. I say this because OMS4 has generated more direct criticism than OMS1-3, and OMS5.\footnote{See Fine, 1975, and Slote, 1978, for some early objections to OMS4. Lewis addresses these objections in Lewis, 1979b. Lewis applies OMS4 in an account of causation in Lewis, 1973b. In postscripts to both of these articles Lewis further elaborates on his account of counterfactuals, introducing the concept of “backtracking.” Hartry Field, in Field 2003, critically evaluates these elaborations.} While OMS1-3 have been attacked because of their

\footnote{See Plantinga, 1996 and Penczek, 1997 for some recent criticisms of OMS4. Both theses authors argue that counterfactuals with true antecedents and consequences are not always true, contra OMS4.}
metaphysical commitments, OMS4 has been accused of getting the semantic facts wrong. Despite this, OMS4 is widely accepted as, at the very least, a heuristic device for understanding counterfactuals. Further, many philosophers, regardless of their position on OMS4, agree with it in that they reject the claim that counterfactuals with impossible antecedents can have a non-trivial truth value. For these reasons I have decided to include OMS4 as a part of OMS.

I should note that OMS4 is also context sensitive. OMS4 mentions similarity of worlds in its analysis of counterfactuals. This similarity is not set in stone but is instead sensitive to the context of utterance. World A might be more similar to the actual world than world B in one context but less similar to the actual world than world B in another context. The exact nature of this phenomenon is not uncontroversial but fortunately we do not need to go into it here. It is enough to point out that OMS4 brings a new type of context sensitivity to the table.

Those who disagree with OMS because they accept Lewis’ theory of possible worlds object to OMS5. In providing a substitute for the concretist I am going to assume that he also accepts Lewis’s account of propositions. For Lewis, propositions are sets of possible worlds.38 A Ludovician version of OMS5 would read:

\[(\text{OMS5C}) \text{ A proposition } P \text{ is true at a world } W \text{ iff } W \text{ is a set-theoretical member of } P.\] 39

38 Lewis, 1986a, p. 53-8.

39 This account of the concretist true at concept is different than the one van Inwagen presents, 1986, p. 214-5. The reason for this difference and the difficulties van Inwagen has in formulating his definition lies in the fact that he does not provide the concretist the resources of Lewis’ take on propositions.
This small change can fix OMS for the concretist. My complaints about OMS in the subsequent chapters will not exploit the differences between OMS5C and OMS so I will not make a distinction between them when referring to OMS. When I discuss TIW I will consider the claim that OMS5C rules out both UMS and TIW because of its metaphysical commitments.

This completes my clarification of OMS. In the upcoming chapters, I will revisit OMS and elaborate on its various components. For example, in chapter 5 I will explore OMS4 in more detail. For now, I will move on to highlighting OMS’ role in current philosophy. After that, I will present UMS.

2.2. OMS and Current Philosophy

The goal of this section is modest. First, I want to sketch a brief history of OMS and point out some places in which OMS is explicitly accepted. Hopefully, this will help convince the reader that my claims that OMS is widely accepted are not exaggerated. More importantly, it can be seen as an attempt to ward off charges that in the later chapters I am pummeling a straw man. Second, I want to show some uses of OMS in the literature. This will reinforce the claim that OMS is widely accepted, and thus deserving of the name “orthodox modal semantics.” It will also provide a challenge and opportunity for UMS. The use of OMS in the literature is a challenge for UMS because it is hard to argue with success. On the other hand, if UMS can show itself to be as useful as OMS, then acceptance of UMS is not as radical a step as might be thought.
Several philosophers in the middle of the last century developed what could be called Leibnizian schemes for giving a semantics of modal logic. In particular, Kripke developed a highly suggestive semantics for modal logic that made use of possible worlds. In it, he explicitly endorses claims that look like OMS1-3. However, there are three ways to approach this system. First, one might take it to be a merely formal account of semantics for a particular logical system. Taken in this way, one need not view the structures Kripke presents as possible worlds nor would one be required to think of the “◊” and “□” as representing anything like possibility and necessity. Such a deflationary attitude towards the semantics is not adopted by many. The reason we care so much about Kripke’s idea is not because we are only impressed with its logical prowess but because we are impressed with its ability to clarify our modal intuitions. As Loux writes:

Can we really think of the modal systems in the way suggested [above]? The answer, I think, is that we cannot if we are to take them to be systems of modal logic, systems that provide theories of legitimate modal inference.

Another way to understand Kripke semantics is to see it as a heuristic device that can give us insight into the modal bits of our everyday language but cannot provide a semantics for our everyday language. The idea would be that Kripke semantics help us understand, for example, that if it is possible that it is necessary that P, then it is necessary that P. Again, such a move is deflationary as it avoids an overt commitment to OMS1-3. The problem with this view is that it is unclear how we

40 See Loux, 1979, p. 15-28 for a good account of this time period.

41 Loux, 1979, p. 29-30.
earn the right to insight without paying the price of accepting the semantics. For example, how is it exactly that we come to understand that possibility is reflexive, transitive, and symmetrical without taking the semantics to be an account of our natural language? How can one talk as if OMS1-3 are true, deduce some interesting consequence OMS1-3, and then claim that OMS1-3 are, seriously speaking, not true? Some may be comfortable getting rid of the ladders they used to climb up on, but I think the result of that behavior is disaster.

Thus, viewing Kripke semantics in this second way was considered unsatisfactory by many. Plantinga wrote that:

[This second] attitude towards the semantics, however, is an extremely sophisticated one that does not always stop short of sophistry. Furthermore, the insights to be gained in this way are limited and somewhat elusive…In any event, there is another way to take the semantics. We may look to it, not for heuristic aids to the imagination, but for literal explanation and articulation of our modal notions.\(^{42}\)

Plantinga does see Kripke semantics as endorsing OMS1-3. For example, he writes that “A proposition, of course, is necessarily true if true in every possible world.”\(^{43}\)

The philosophical community has concurred with Plantinga in acceptance of OMS1-3 based on Kripke semantics. In Lewis we find this passage: “What is impossible is the case at no worlds; what is contingent is the case at some but not at others.”\(^{44}\) A mere casual glance at most other works in metaphysics will result in the reader finding further passages that confirm the widespread acceptance of OMS1-3.

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\(^{42}\) Plantinga, 1974, p.125-6.

\(^{43}\) Ibid., p. 55.

\(^{44}\) Lewis, 1986a, p. 7.
I have already talked some of how I view OMS4-5’s relation to the philosophical literature. OMS4 is explicitly developed in Lewis’s book Counterfactuals.\(^{45}\) An account of counterfactuals that is very similar to OMS4 is given in Robert Stalnaker’s article, “A Theory of Conditionals.”\(^{46}\) I think Lewis’s account of counterfactuals is preferable and that is why I have focused on OMS4. When I discuss OMS4, the criticisms I direct at it can just as easily be directed at Stalnaker’s account. As for OMS5, Plantinga writes, “A proposition is true in the actual world if it is true; it is true in [a possible world] \(W\) if it would have been true had \(W\) been actual.”\(^{47}\) Van Inwagen claims he is an Abstractionist and then goes on to say that, “actuality is just obtaining.”\(^{48}\) Both OMS4 and OMS5 have prominent philosophers sticking up for them.

It is true that some metaphysicians reject OMS. However, those who reject OMS do so almost entirely because of metaphysical rather than semantic concerns. For example, Sider would reject OMS1 and replace it with the following:

\[(\text{OMSS1})\] Sentences of everyday language that are equivalent to “Possibly P,” express a proposition that is equivalent to \textit{According to the pluriverse sentence, there exists a possible world at which P is true.}\(^{49}\)

OMS1 and OMSS1 differ hardly at all. The core intuition behind OMS1 remains. Sider and the OMS proponent both agree that for \(P\) to be possible there needs to be

\(^{45}\) Lewis, 1973a.

\(^{46}\) Stalnaker, 1968.

\(^{47}\) Plantinga, 1974, p.46.

\(^{48}\) Van Inwagen, 1986, p. 211.

\(^{49}\) Sider, 2002, p. 287.
some maximal consistent “story” at which P is true. OMS takes this story to be a possible world. Sider avoids ontological commitment to many distinct stories and instead is committed to a meta-story in which the smaller individually maximal stories take place.

We saw a similar trend when we examined how the concretist might object to OMS5. There the core intuitions behind OMS5 remained when we presented OMS5C. Even when philosophers reject OMS, they tend to try to remain as close to OMS as possible. Part of the motivation for this tendency is likely due to the success of OMS. Sider notes:

The journals and books published in the last forty years contain hundreds of uses of possible worlds, few of which could be reconstructed as purely formal uses of Kripke models...Moreover, these invocations of possible-worlds talk usually go far beyond using possible worlds language as a kind of vivid shorthand for sentences containing modal operators: it is well known that a language employing quantification over possible worlds and individuals has more expressive power than the language of modal predicate logic.  

The success Sider is marveling at is not due just to an ontological commitment to worlds. A critical piece of the use of worlds is the adoption of OMS. I will conclude this section of the chapter by briefly considering some examples of this success.

First, let us look to epistemology. In a recent article debating the success of arguments for infalliblism (the view that, necessarily, if a belief has warrant sufficient for knowledge, then it is true), OMS4 plays an important role. There the authors argue that this proposition,

50 Ibid., p. 280-1.
(HSF) S’s belief that p is warranted only if S’s belief that p would not be accidentally true for S, if it were true.

does not entail, but is entailed by this proposition,

(Infallibilism) S’s belief that p cannot be at once warranted and false.

I will not go into the details of the argument, but will point out that they write:

We’ve relied on the premise that[

Necessarily, for any proposition q and r, if q is true and r is true, then, if q were true, r would be true. This is a consequence of the standard logic of counterfactuals presented by Lewis and Stalnaker.\(^{52}\)

Notice that the authors describe the logic of counterfactuals presented by Lewis and Stalnaker (which OMS4 is the essence of) as the standard logic. Also, the authors concede that if OMS4 is false, then their argument fails.\(^{53}\) OMS4 is both acknowledged to be the orthodox account of counterfactuals and is such that it is essential for some contemporary arguments given in epistemology. (It is worth pointing out that one might accept something like OMS4, but reject their argument.

For, one might think that even if q and r are true, it does not follow that \(\text{If } q \text{ were true, then } r \text{ would be true,}\) is true. Even if the reader thinks this, it does not change the facts that a) OMS4 is cited as the standard logic here and b) something like OMS4 can and usually is accepted by those who reject the inference above.)

Second, let us look to metaphysics. Van Inwagen, in an article discussing theories of persistence, claims that:

\(^{52}\) Ibid., p. 312, n. 21.

\(^{53}\) Ibid., p. 323, n. 21.
it does not seem to be the case that Descartes had a temporal extent of fifty-four years essentially: his temporal extent might have been one year or fifty-five years or even a hundred years. But how will the [perdurantist] understand this modal fact?54

The modal fact under question is presumably *Descartes could have had a temporal extent other than fifty-four years*. What is interesting about this passage is the move van Inwagen makes after presenting this modal fact. When discussing this claim he immediately moves into possible worlds talk. For example, he writes, “the [perdurantist] will want to say that if a temporally extended object like Descartes has different temporal extents in different possible worlds…,” (emphasis mine).55 The assumption is that the modal fact above is equivalent to *There is a possible world at which Descartes has a temporal extent other than fifty-four years*. This assumption is justified only if OMS1-3 is accepted. Thus, OMS plays a crucial role in contemporary metaphysics.

2.3.Unorthodox Modal Semantics

In this section I will present UMS. I will begin by introducing the five theses that compose UMS. I will follow that by clarifying the terms used in the theory. The concepts of depth and explicit truth will be considered in detail. I will finish the section by considering three different objections to UMS.

54 Van Inwagen, 1990b, p. 119.
55 Ibid.
2.3.1. The Theory

The following five theses compose UMS:

**UMS1** Sentences of everyday language that are equivalent to “Possibly P,” express a proposition that is equivalent to *There exists an explicitly consistent state of affairs of the appropriate depth at which P is explicitly true.*

**UMS2** Sentences of everyday language that are equivalent to “It is impossible that P,” express a proposition that is equivalent to *There does not exist an explicitly consistent state of affairs of the appropriate depth at which P is explicitly true.*

**UMS3** Sentences of everyday language that are equivalent to “Necessarily P,” express a proposition that is equivalent to *Every explicitly consistent state of affairs of the appropriate depth is such that P is explicitly true at it.*

**UMS4** Sentences of everyday language that are equivalent to “If it were the case that P, then it would be the case that R,” express a proposition that is equivalent to *There does not exist an explicitly consistent state of affairs of the appropriate depth where P is explicitly true and R is explicitly false and which is more similar to the actual world than all the explicitly consistent state of affairs of the appropriate depth in which P is explicitly true and R is explicitly true.*

**UMS5** A proposition P is explicitly true at a state of affairs W iff P is part of the content of W.

Like in the case of OMS, we will start with the final thesis first. UMS differs from OMS in that it distinguishes between implicit and explicit truth. Implicit truth at a world is the same thing as truth at a world. I add the “implicit” to contrast truth at a world with the concept of explicit truth at a world. To understand explicit truth at a world, one must both understand what the content of a state of affairs is and what it is for a proposition to be a part of that content.
The content of a particular state of affairs is hard to define but easy to get an intuitive grasp on. Let us stop and consider the content of propositions first, and then move on to states of affairs. Consider the following two propositions:

(Leibniz’s Law) For any x and any y, if x and y are identical, then for any property p, x has p iff y has p.

(Cantor’s Theorem) The set of all subsets (the power-set) of a given set must be cardinally greater than that set.

These propositions are distinct. They are about different subjects. They have a distinct content. If two propositions had the same content, then we would not think they are distinct. The following principle expresses this intuition:

(Distinct Propositions) If two propositions, X and Y, are distinct, then they have a different content.

Of course, this does not help us explain us what content is. To get a better handle on that, consider the following two statements:

(Same1) Leibniz’s Law and Cantor’s Theorem are both true.

(Same2) Cantor’s Theorem and Leibniz’s Law are both true.

Same1 and Same2 express the same proposition. There are not two distinct propositions that merely “move around,” or present in a different way, the same information. We can see then that content is closely related to the idea of

56 Or so say many of us. Lewis, 1986a, resists this claim. He thinks that these statements express the same proposition, that of the set of all possible worlds. He does provide a way to distinguish between these two propositions, p. 55-9, but does not endorse it.
information. A useful way to think of information is in terms of sets of propositions. Thus, for each proposition P let there be a set of propositions that is the “content set” for P. We can now try to improve Distinct Propositions to:

\[
\text{(Distinct Propositions')} \text{ Two propositions, } X \text{ and } Y, \text{ are distinct iff their content sets are distinct.}^{57}
\]

It is easy to determine if two sets are distinct, for two sets are identical iff they have all the same members.

Unfortunately, Distinct Propositions’ is not much of an improvement. While true, Distinct Propositions’ does not tell us what content is and is silent about what a content set is. Suppose we defined content like this:

\[
\text{(Content) For any set of propositions, } S, \text{ } S \text{ is the one and only content set of some proposition } P \text{ and every proposition has a content set.}
\]

If true, Content would be interesting and informative. Content is false. Consider these two distinct sets:

\[
\text{(Set1) } \{ \text{Leibniz’s Law is true, Cantor’s Theorem is true}\}.
\text{(Set2) } \{ \text{Leibniz’s Law and Cantor’s Theorem are both true}\}.
\]

\[^{57}\text{One might find this discussion misguided because I am attempting to elaborate on the content of a proposition and talk as if propositions were “about” something. If the reader feels this way, then they can approach the topic in a different way. Instead of distinguishing propositions and states of affairs based on reference to content, the reader can hold that two states of affairs are distinct iff a thinker can consider one without considering the other. Thus, the reader will be able to agree with me that there are multiple distinct impossible states of affairs and that Leibniz’s Law being true and Cantor’s Theorem being true are two different states of affairs. The readers pursuing this tactic should change UMS5 to A proposition P is explicitly true at a state of affairs W iff necessarily, if one considers W, then one considers P. The rest of the dissertation will have to be modified accordingly.}\]
These sets are distinct. If Content were true, then there would be two propositions, P₁ and P₂, such that P₁’s content set was Set₁ and P₂’s content set was Set₂. By way of Distinct Propositions’ we would then know P₁ and P₂ are distinct. But certainly they are not. Set₁ and Set₂ seem to have the same content and thus the propositions of which they are content sets would have the same content.

What we need in order to clarify the idea of a “content set” and the idea of content in general is a way to pick out all and only the information included in a proposition. Content fails to do this because various sets can be distinct but yet still contain the same information. I think I can clarify the idea of content set, but I am going to have to “cheat.” I am going to exploit the fact that conscious beings are themselves a sort of content detector. There is a specific content to our thoughts.

Here is how the strategy goes: ⁵⁸ First, take any set of propositions S. Next, take all the sets of propositions R that are such that if a being entertains or considers S then she considers R, and if she considers R then she considers or entertains S. Finally, consider the set W that is such that a proposition P is a member of W iff it is a member of S or one of the Rs. W is the type of a set that I want to call a content set. Any set of propositions such that, the members of the set are all and only the members of sets that are part of a group of sets of propositions that is such that any being entertaining one of the sets, entertains them all, is a content set. For any two distinct propositions there will be two distinct content sets. Finally, not every set is a content set.

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⁵⁸ This strategy is in large part based on Chisholm, 1976, p. 117-120.
Having clarified the notion of a content set, we can now look to Distinct Propositions’ and see that it is not only true, but informative. We can apply a similar method when thinking about the content of states of affairs. *Leibniz’s Law being true* and *Cantor’s Theorem being true* are two different states of affairs. They are two different ways the world could be. Granted, they are both ways the world has to be, but they are distinct ways none the less. We think this because the content of these two states of affairs is distinct. We can cash this idea out in the same way we cashed the corresponding idea out in the case of propositions:

**(Distinct SofAs)** Two states of affairs, X and Y, are distinct iff their content sets are distinct.

For every distinct state of affairs, there will be a unique content set. Additionally, a proposition and a state of affairs will have the same content iff they have the same content set. Finally, the content of a state of affairs W is fully described by its content set. We have finished making our first step in understanding what UMS5 amounts to.

To explicate UMS5 completely, I need to cash out what it would be for a proposition to be part of the content of a state of affairs. We have seen that we can describe the content of state of affairs by referring to its content set. For a proposition to be part of the content of a state of affairs is just for it to be a member of the content set of the state of affairs. So, for a proposition to be explicitly true at a state of affairs is just for it to be a member of the content set of the state of affairs.  

59 For those who are worried about UMS’ apparent commitment to sets and propositions, see the later part of the chapter where I discuss nominalism with regards to possible worlds.
I would like to make two points before we leave UMS5. First, the difference between implicit and explicit truth at a world is dramatic. Take the state of affairs Leibniz’s Law being true. The proposition Leibniz’s Law is true is explicitly true at this state of affairs because it is part of the content of this state of affairs. However, the proposition Cantor’s Theorem is true is not explicitly true at this state of affairs. Cantor’s Theorem is true is implicitly true at this state of affairs, for if Leibniz’s Law being true was actual, then Cantor’s Theorem is true would be true. Remember, implicit truth at a state of affairs is just truth at the state of affairs. All necessary truths are true at every maximal and less than maximal state of affairs.

Second, recall Distinctness. Distinctness makes reference to only maximal state of affairs. We could naturally modify Distinctness to:

(Distinctness*) If two states of affairs, X and Y, are distinct then it must be the case that they are different ways the world could be; it must be the case that if either X or Y was actual, then some proposition P is true at one state of affairs but not at the other.

Distinctness* is problematic. According to it the states of affairs Leibniz’s Law being true and Cantor’s Theorem being true are not distinct. But they are, so Distinctness* is false. This does not mean Distinctness if false60, but it does push us to formulate a better conception of distinct state of affairs that can apply to both maximal and less than maximal states of affairs. Distinct SofAs will fit this role nicely. When considering states of affairs, implicit and explicit truth come apart, and so we need a notion of distinctness, like Distinct SofAs, that recognizes this.

60 I will consider in Chapter 5 the consequences of abandoning Distinctness.
It is the case that an adoption of Distinct SofAs leads to a denial of Distinctness. Consider two maximally inconsistent states of affairs, X and Y with different content sets. For example, let one of these states of affairs be *It is the case that 2+2=5 is true*, and let the other be *Al Plantinga holding two round squares in his hand*. By Distinct SofAs these are distinct states of affairs. However, by Distinctness, they are not distinct. To resolve this problem we have three options.  

We can abandon Distinct SofAs, abandon Distinctness, or conclude there are not two maximally inconsistent states of affairs with different content sets. I believe that we should conclude that Distinctness is false. I will operate as if that is the case and I will defend this decision in Chapter 5 when I discuss the theory of impossible worlds in more detail.

UMS1-3 respect the relationship between possibility, necessity, and impossibility in the same way OMS1-3 do. What is different about UMS1-3 is their reference to the concepts of explicit consistency and appropriate depth. A state of affairs is explicitly consistent iff there is no proposition that is such that both it and its denial are members of the state of affairs’ content set. Explicit consistency is a natural concept in light of UMS5. Explaining appropriate depth will take a bit more work.

Some states of affairs tell us very little about the world they purport to represent. Others, if actual, tell us a lot about the world. Some states of affairs are very complete with regards to their representation of natural facts; others lack any

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61 Or, we have three reasonable options. We could also limit Distinct SofAs to only less than maximal states of affairs. However, a move like that is *ad hoc* and should be avoided.
content about natural facts. Possible worlds are maximal with regards to their
descriptive power. States of affairs like A dog exists are extremely poor in their
descriptive power. This characteristic of “filled-in-ness” is a characteristic that states
of affairs can have in degrees. In the same way people have different degrees of
having a full head of hair. We could, if we wanted to, make a list of states of affairs,
putting the thinnest ones on the top and the fullest ones on the bottom. The property
that would determine where the state of affairs fits on the list is its depth.

There are a variety of ways to think about the depth of a state of affairs. We
can measure depth bluntly. You might take two men and compare the thickness of
their hair by simply counting the number of hairs on their head. Similarly, you can
compare the depth of two bodies of water by simply comparing which has the deepest
point. We can take two states of affairs and say that one is deeper than the other just
in case one has more propositions in its content set than the other. Doing this,
however, is not very useful. Some content sets will have an infinite number of
members. Comparing infinities is difficult and it is not clear to me at least what the
results of such comparison really reflect. (Compare this exercise to comparing the
depth of two bodies of water that each has a trench of infinite depth.)

We should resist the urge to simplify the notion of depth of a state of affairs.
Just as a body of water can be deeper in some locations, so a state of affairs can be
deeper with respect to different areas of information. One way to think about the
depth of a state of affairs is to see it as deep as a group of propositions. Consider
every law-like proposition or its negation. A state of affairs is sufficiently deep such that it includes natural laws in its content iff either every law-like proposition or its negation is a member of the content set of the state of affairs. A state of affairs is sufficiently shallow as to avoid explicitly representing the way the world is with respect to laws iff for every law-like proposition and its negation, that proposition is not a member of the content state of the state of affairs.

Typically we try to avoid specifying the depth of a state of affairs gruesomely. We are not interested in thinking about states of affairs that represent all the facts about the Major League Baseball season of 2002, Richard Nixon’s health, the mathematical truths with respect to natural numbers and the location of every person in Yugoslavia at 3:45am GMT, May 24, 1975. Rather, we typically consider states of affairs that start at some point of interest and fill in the lower levels of reality according to our needs. For example, we might wonder if it is possible for a table to fit through a particular door. In this case, we would consider a state of affairs that as part of its content includes the dimensions of the door and table, the flexibility of the frame and the table, the relevant natural laws, perhaps the material of which each is made, maybe the fragility of each, but not the lower level facts such as the molecular composition of the table on which the relevant higher level fact supervene.

Some may have trouble understanding what set I am asking them to think about. Natural laws are propositions that fill a functional role for us. It may be that this role is filled by the same proposition in every possible world. In any case, we do have certain standards for what sort of propositions can count as natural laws. *There are just as many even numbers as odd* is not and could not be a natural law. *God exists* is not and could not be a natural law. (Even if God does exist.) *All metals conduct electricity* is a natural law. *At constant pressure any gas expands with decreasing temperature* is not a law, but could be. Call propositions that, if true, would be natural laws, law like propositions. See Dretske, 1977. I am not going to take a stand here about what the necessary and sufficient conditions are for a proposition to be law-like.
The depth of any given state of affairs is not context dependent. Take a particular state of affairs, regardless of what anyone thinks that state of affairs does or does not encompass in its content, the natural laws, the molecular structure of the universe, the psychological facts about people, or the neurological facts about people. What is context dependent is what sort of state of affairs is picked out by our use of the words “possibly,” “necessarily,” and “impossibly.” According to UMS, sometimes when we say “P is possible,” we mean to say not only that there is some state of affairs in which P is explicitly true, but that there is a state of affairs in which P is explicitly true and is such that it includes in its content all the propositions about a certain subject and does not include in its content certain other propositions. What parts of the world must and must not be represented are determined by the context of the assertor. This is what is meant by “appropriate depth” is UMS1-3.

The differences between UMS1-3 and OMS1-3 can be seen clearly in the following thought experiment involving two cases. Consider two workmen hired to move furniture out of room and into a moving van. In the course of their job, these workmen come upon a very large sofa. They then discuss what to do with the sofa and proceed to have an argument about whether or not a certain door is such that the sofa can fit through it. We can characterize their dispute as a dispute about whether or not there is some way for the workmen to move the sofa through the door. One of the workmen utters this phrase, “It is possible for the sofa to be moved through the door.” He attempts to convince his partner of this by drawing pictures, taking measurements, and pantomiming how they would carry the sofa through the door.

What proposition did he express above? According to OMS:
(OMS Answer) A proposition equivalent to There exists a possible world at which it is true that the sofa is moved through the door.

UMS gives a different answer:

(UMS Answer) A proposition equivalent to There exists an explicitly consistent state of affairs of affairs of the appropriate depth at which it is explicitly true that the sofa is moved through the door.

It is difficult to fill in UMS Answer in any more detail because of the difficulty of characterizing the appropriate depth of the state of affairs. This much can be said: the depth of the state of affairs in question includes in its content information regarding the size of the door and couch, information regarding the natural laws of interaction between those objects, information concerning the type of material each is made of, the strength and body shape of the workmen, and certain laws of logic about what it means for a sofa to “move through a door.” The state of affairs would not include in its content claims about unreal numbers, the history of the couch, the thoughts of God, and other unrelated facts about the world. Let us suppose that in this case, if the OMS Answer is the correct interpretation, then the workman uttered something true. Further, let us suppose that, if the UMS Answer is correct, then the workman uttered something true. In this case, the state of affairs which grounds the truth of the UMS Answer is included or embedded in the possible world that grounds the truth of the OMS Answer. So ends the first case.

In the second case, let the situation be exactly the same as in the first case with regards to the workmen, their conversation, and the physical state of the universe up till that time. However, let there exist a god who exists in every possible world. This god has a strange quirk. In every world in which the world gets to the state it is
in when the workmen are having their discussion, she shortly thereafter destroys the Earth. Thus, our workmen never get a chance to try to move the couch in their world or any other. In this case, if the OMS Answer is the correct interpretation, then the workman uttered something false. There is no world at which the sofa is moved through the door. However, if UMS Answer is the correct interpretation, then the workman uttered something true. For it would still be explicitly true in an appropriate explicitly consistent state of affairs that the sofa is moved through the door. Notice that the state of affairs grounding the truth of the workman’s utterance is one that is implicitly contradictory. If that state of affairs was actual, then the sofa would be both moved through the door and not moved through the door (because the god would destroy the Earth before such an event could occur.)

The experiment above shows how UMS and OMS are different and how the truth of the theories can make a difference. OMS rules out the ability to utter truly statements of the form “Possibly P,” when it is the case that if P were to occur, then some impossibility would at least be implied. UMS holds that we can utter truly statements of the form “Possibly P,” regardless of whether or not P can be embedded in some possible world. When I reflect on the above two cases, I think they show that UMS is to be preferred. In the second case, there is something right about what the workman is saying. He understands better than the other workman the nature of the sofa and the doorway. If one adopts the OMS interpretation of what he is saying, then there is a burden on one to characterize the statement not only as false, but also

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63 If a critic objects that I have not ruled out such a world by my description of the case, then let him modify the second case. Make the second case occur in a Spinozian world in which the god there destroys the world shortly after the workman makes his utterance.
appropriate in some way. I would rather just give the workman his due and credit him a true statement. In any case, while I think the thought experiment shows UMS is to be preferred, I know that not all will see it as I do. Because of that, I have used the above example primarily as a tool to show the differences between UMS and OMS. The argument for UMS remains the argument from utility presented in Chapter 1.

In response to the above case, the proponent of OMS might simply say that the example is incoherent (which it is, in the sense that there couldn’t be workmen in the situation I described) and that I owe the reader a clear cut everyday case in which OMS and UMS differ. Unfortunately, I cannot point to such a case, but I think I can explain why my inability to do so is not threatening to UMS.

For there to be a clear cut everyday case of OMS and UMS differing then I need to be able to give a case where 1) there is a sentence S that we uniformly agree is true, 2) UMS gives a semantics for S that results in S expressing a true proposition and 3) OMS gives a semantics for S that results in S expressing a false proposition. If the second and third conditions are met, then it must be that the state of affairs referred to in S is in fact impossible. However, if that is the case, then the proponent of OMS is likely just going to insist that S is not true and such assertions will be difficult to resist. For, the assertions of the OMS proponent change the context of the discussion and require her conversational partners to take her seriously the fact that there is some state of affairs that S could refer to that is inconsistent. Thus, any case will likely result just in another case that plays out the same way the movers case does above.
Additionally, in any clear cut case, I will have to show that the sentence in fact does refer to an impossible state of affairs. That is an extremely difficult thing to show in light of our general inability to know what is or is not impossible. Any obvious case of impossibility, such as a case involving a round square, will be so shallow as to not be a case where we uniformly hold that the sentence expressed was in fact true.

I will try, however, to point to more “realistic” cases for the reader now. Consider a history book that makes claims about the possible outcomes of a battle. Note that these are not all the possible outcomes if we take “possible” to be unrestricted. Rather, they are all the possible outcomes that are reasonable, are such that the laws of nature are not broken, etc. Let us say that there are three possible outcomes. Further, let us suppose that historians unanimously agree that there were three possible outcomes. In a case like this, all of us would be inclined to consider the sentence, “There were three possible outcomes of the battle,” true.

There are many cases like the above in the history books that refer to possible outcomes of battles, elections, or what have you. I think it is probable that some of the cases are such that some of the outcomes are in fact implicitly contradictory. I think this because I think it is likely that we have not thought through all that some of the outcomes would require. For example, it may be that the laws of nature and the state of Robert E. Lee’s brain during the Civil War make some outcomes of battles in the civil war impossible by OMS’ lights. Or, it may be that the out of all the potential outcomes of an invasion of Iraq, some of them are, at an extremely deep level of analysis, impossible. Maybe one of the outcomes entails that the Iranian government
both interfere and not interfere in an occupation of Iraq. Despite that, I still think that we ought to consider the sentences true. For, the historians do not delve deeply into the states of affairs they consider and we do not ask them to.

If OMS were true, then we ought to be more skeptical about the claims people make in everyday life. We ought to insist that historians spell out their possibilities in more detail. Instead, we accept them at face value or just have the historian spell out certain relevant details according to the context. We take it as fact that Eisenhower could have invaded Normandy a week later than he did. We take it as fact that one option open to Lee was to choose to fight for the North. And maybe it was a “real” option. But certainly in some cases like these this assumption of possibility is false. Thus, I cannot provide one realistic case where OMS and UMS differ, but I can point to a class of statements such that all of them are taken to be true and likely some of them are false according to OMS but true according to UMS.

Let us end this section by considering UMS4. UMS4 is similar to OMS4 in its contention that normally we evaluate counterfactuals by looking to the worlds closest to the actual world and then determining whether or not the antecedent and consequence are true at those worlds. UMS4 differs from OMS4 in its use of the concepts of explicit consistency and appropriate depth. Further, UMS4 does not make counterfactuals with impossible antecedents trivially true. This difference is one of the main points of Chapter 5 and so I will refrain from saying more about it here.
2.3.2. Objections to UMS

There are three objections that I want to address in this section. The first objection is what I call the “Poached Egg” objection. In this objection, the objector argues that UMS is an inaccurate semantics for our modal talk. The second objection is a claim that UMS somehow messes with or ignores the rules of logic. The third objection is that UMS is undermined by the success of OMS.

A common objection to counterpart theory goes like this:

“According to counterpart theory there is some context in which the utterance ‘I could be a poached egg’ is true. However, I could never be a poached egg and so there can never be a case in which the utterance of that sentence is true. Counterpart theory is mistaken.”

There are at least two different responses that the counterpart theorist could have. First, the counterpart theorist can deny that counterpart theory entails that the sentence in question could be uttered truly. The cost of this move is heavy. Counterpart theory certainly provides the means for there to be a context in which the sentence is uttered truly. The counterpart theorist owes us some sort of an explanation about which contexts are possible and which are not. I myself cannot see how the counterpart theorist might rule out the existence of the offending context and so if I were a counterpart theorist, I would not adopt this option.

I would choose the second route instead. In this case, the counterpart theorist denies that the claim of the objector, “I could never be a poached egg,” rules out the

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64 In my responses to this objection, I do not want to associate David Lewis with either of these options or claim that these options are exhaustive.
existence of the offending context. The counterpart theorist would point out that both of the following claims must be true for the objection to work:

(CT1) “I could never be a poached egg,” is true.

(CT2) The statement quoted in claim CT1 must be such that it is not ignoring certain contexts in which the speaker could have been a poached egg.

The counterpart theorist might admit CT1 but then would deny that the statement says what the objector thinks it does. He would deny CT2, and insist that the speaker of “I could never be a poached egg,” is just ignoring some bizarre contexts in which he could have been a poached egg. Or, if pressed that the speaker is not ignoring such context, the counterpart theorist would accept CT2. However, he would then deny CT1. He would be safe to do this because, given CT2, the quoted statement CT1 is no longer a sacrosanct part of our natural language. The objector has made “I could never be a poached egg” express a proposition much more precise than what common sense determines.

A similar dialectic can be run on UMS. Take the following objection: “According to UMS there is some context in which the utterance ‘It could be the case that 2+4=5’ is true. However, it could never be the case that 2+4=5. UMS is mistaken.” As hinted at before, I would accept the claim that if UMS is true, then there is some context in which the utterance ‘It could be the case that 2+4=5’ is true. After all, there is some explicitly consistent state of affairs such where 2+4=5 is explicitly true. (Namely, the state of affairs It being the case that 2+4=5). Further, I have no reason to think that there could not be a context in which the appropriate depth for a state of affairs is the very thin one of including either 2+4=5 or its denial.
I would respond to the objector by denying that their claim that it could never be the case that “It could be the case that 2+4=5” is both true and unrestricted. I agree that 2+4=5 could never be true, (at least not in any reasonable context.) But if the objector insists that 2+4=5 could never be true and that she is not ignoring any possibilities, then I think the objector has gone beyond her rights. By claiming she is not ignoring any possibilities when she utters “2+4=5 could never be true,” she is taking a semantic position where none is favored by common sense one way or the other. To justify this claim she would need some other reason to prefer OMS over UMS.

Another objection to UMS is as follows:

“UMS messes with the rules of logic. Is it not the case that impossibility entails everything? Yet you claim that, ‘If there is a round square, then there are 3 round squares,’ is not trivially true.”

In this case the objector has confused:

*(Impossibility)* If a state of affairs in which P and ~P were true was actual, then not every proposition would be true at that state of affairs.

with

*(Impossibility*) If a state of affairs in which P and ~P were true was actual, then not every proposition would be explicitly true at that state of affairs.

I deny Impossibility but accept Impossibility*. It is only Impossibility that messes with the rules of logic. Impossibility* can safely claim that not every proposition is explicitly true because explicit truth has to do with content and not with truth simpliciter. It is the case that if a necessary falsehood were true, then everything
would be true. But by “true” I mean really true or implicitly true. The confusion here points to the vast gulf between UMS5 and OMS5. If UMS5 is true, then when we evaluate states of affairs we do not let “logic” do any of the work. For a proposition to be true at a state of affairs according to UMS5 is just for it to be part of the content. A state of affairs has to tell us that a proposition is true at that state of affairs; the state of affairs cannot imply it.

Finally, given the overwhelming use and success of OMS in contemporary literature, one might conclude that no matter what the rest of the dissertation shows, OMS is vastly more useful than UMS. I will conclude this section by addressing this worry. First, the proponent of UMS can accept OMS5. UMS5 does not contradict OMS5 but merely defines what explicit truth is. Explicit truth at a world is not the same thing as truth at a world and so there is no conflict.

Second, it is true that OMS1-3 and UMS1-3 cannot both be true. However, UMS1-3 can take over from OMS1-3 much of the work it does in the literature. Suppose UMS1-3 is true. Given the right context, we can say “Possibly P,” and express a proposition equivalent to *There exists a possible world at which P is true.* To see this, notice that the appropriate depth specified by the context could be “maximal.” In some context we may demand that a state of affairs explicitly represents every proposition or its denial. In this case, every proposition that is true at the state of affairs will also be explicit. Given the right context then, UMS1-3 and OMS1-3 are indistinguishable.

Third, much of the disagreement between UMS4 and OMS4 can be handled in the same way the disagreement between UMS1-3 and OMS1-3. The remaining
debate over whether or not counterfactuals with impossible antecedents are trivially true cannot be papered over. In so far as that claim is useful, UMS4 has an obstacle to acceptance. However, I do not think this claim will ultimately serve as a burden for UMS4. Rather, UMS4’s denial of it will serve as reason to accept UMS4. This is the central point of the next chapter.

Thus, we can view UMS as just a bigger theory than OMS. Even if UMS is true, OMS is still an accurate account of our modal talk in certain circumstances. Further, UMS can solve any of the problems and do all the work OMS can do. It might even be the case that UMS is true, but, due to the contexts we find ourselves in, OMS is all we need to make sense of our talk.

2.4. How UMS Interacts with Various Philosophical Problems

I am going to conclude this chapter by looking at how UMS interacts with various philosophical problems. I want to answer these two questions: “Is the believer in UMS committed to believing in the existence of states of affairs?” and “How can UMS have an impact on metaphysical problems if it is merely a semantic theory as you claim?”

2.4.1. UMS and Modal Realism

UMS, like OMS, makes mention of states of affairs. Suppose Juan believes that UMS is true. Further, suppose Juan is not unusually deprived of beliefs and believes that for at least some P, P is possible. Juan comes to correctly deduce from these two facts that there exists an explicitly consistent state of affairs of the
appropriate depth at which P is explicitly true. We can now construct, by familiar reasoning, an argument for the conclusion that Juan ought to be believe that states of affairs exist. Here is one way to construct such an argument:

(J1) If someone believes in a proposition of the form “There exists an X such that…,” then that person, (because of the threat of holding inconsistent beliefs), should believe “Xs exists,” “Xs have being,” “Xs are objects in the same way people think tables and chairs are objects,” etc.

(J2) Juan believes in a proposition of the form “There exists a state of affairs such that…”

(J3) Thus, Juan should believe, among other things, that states of affairs are objects in the same way people think tables and chairs are objects.

The argument is valid. I do not want to defend premise J1 here, but I think it is obviously true, as do many other philosophers. 65 If you do not think it is true, then much of this section will by your lights seem at best a waste of time.66 Premise J2 is an assumption of the story. For anyone who endorses UMS and who believes that at least some P is possible we can construct a similar premise. Thus, it seems like the believer in UMS is committed to the belief that states of affairs exist. The answer to our first questions is “Yes.”

I have not said in great detail what states of affairs are. I have not said whether or not they are abstract or concrete objects. I have not said if they are propositions, sets of propositions, or something entirely different than propositions.

65 See van Inwagen, 1998b, and 2003 for a defense of Quinean principles that would lead one to adopt premise 1.

66 Ernest Gellner would think this section is a waste of time. See Gellner, 1979.
In any case, it is likely that someone who endorses UMS will think that states of affairs are some sort of ontologically controversial entity. Most realists about states of affairs hold them to either be abstract, or concrete and much more plentiful than we would have thought. One could endorse UMS, and premise J1, without believing in any sort of controversial entity; if you could give an account of states of affairs that only made use of objects that we all think exist. Armstrong has attempted this but failed because his metaphysics does not respect the fact that possibility is symmetrical.⁶⁷ Thus, there are some who would want to reject UMS for its modal realism and become modal nominalists.

I think a rejection of UMS based on nominalist concerns is mistaken. In fact, I think UMS is a thesis independent of the metaphysics of states of affairs, the two issues “cross-cut,” so to speak. Further, this is not because I deny J1 or J2 of the argument above. To explain how I can hold these beliefs consistently, I will have to make a distinction between two theories being strongly independent of one another, two theories being moderately independent of one another, and two theories being weakly independent of one another.

Theory T is weakly independent from theory Y iff theory T does not entail the truth or falsity of Y and Y does not entail the truth or falsity of T. UMS is weakly independent of modal realism. After all, one could deny premise 1 in the above argument. However, this independence is not the type of independence we care

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⁶⁷ At least this is true of Armstrong, 1986. Armstrong changes his tune in Armstrong, 1997. However, I think that account fails for the same reason as his earlier account or it does, in the end, admit of controversial entities.
about. Despite this independence, very few nominalists would feel comfortable accepting UMS.

Theory T is strongly independent from theory Y iff theory T does not, with the help of plausible premises, entail the truth or falsity of Y and Y does not, with the help of plausible premises, entail the truth or falsity of Y. UMS is not strongly independent of modal nominalism. Along with a premise similar to Q1 we can construct an argument from UMS for the conclusion that modal nominalism is false.

Theory T is moderately independent from theory Y iff a) a theory T* can be given that accepts the essential parts of T, b) a theory Y* can be given that accepts the essential parts of Y, c) T*, does not, with the help of plausible premises, entail the truth or falsity of Y*, and d) Y* does not, with the help of plausible preemis, entail the truth or falsity of T*.

If modal nominalism is successful, then the nominalist should be able to construct a theory, UMS*, that both preserves the essential parts of UMS and does not entail the falsity of modal nominalism. Nominalism, of whatever sort, is essentially a paraphrase project. Quinean principles, when combined with seemingly innocent beliefs, lead us to conclude that things such as universals, fictional characters, states of affairs, meanings, etc., exist. The nominalist does not reject the principles but instead tries to show us that we really do not believe what we thought we did. To do this, they must come up with an appropriate substitute for what we take to be our everyday beliefs. If successful, the nominalist shows us that we can get by without believing in the controversial entities. The successful modal nominalist will teach us how to do without states of affairs, ways things could be, possible
worlds, etc. If unsuccessful, then that does not show UMS to be false. In either case the core intuitions behind UMS will remain. It is true that if modal nominalism is a failure then UMS turns out to not be independent of modal nominalism. However, if modal nominalism is a failure then one should not reject UMS because it commits one to modal realism.

To conclude, UMS does with plausible premises entail the falsity of modal nominalism. However, modal nominalism is not a good reason to reject UMS. If successful, the nominalist will be able to embrace a theory very similar to UMS. It is on this basis that I claim that these two issues are separate issues.

2.4.2. UMS and Free Will

In the section above and in presenting UMS I have attempted to show that UMS is best characterized as a theory about what we mean and not a metaphysical or epistemological theory. This leads to the natural question, “How can UMS have an impact on metaphysical and epistemological problems if it is merely a semantic theory as you claim?” I will attempt in this section to give an adequate answer to this question. I will first give an example of how UMS could be used fruitfully in a metaphysical discussion. The example will involve Fritz Warfield’s new argument for incompatibilism.68 I will then end by making some remarks about the structure of the example and generalize from these to other problems.

Warfield’s argument for incompatibilism can be summarized as follows:

68 See Warfield, 2000. In the following discussion I use his terminology and phrasing but compress the argument he gives in the article.
Let “D” stand for determinism, the view that the conjunction of the complete state of the world in the distant past with the laws of nature entails all truths.

Let “H” stand for the conjunction of the complete state of the world in the distant past with the laws of nature.

Let “Fsa” stand for “S is free to make it the case that a.”

Let “□” be broad logical necessity, let “◊” be broad logical possibility.

Consider the following propositions/proposition schemas:

(A) P is true and there’s nothing anyone is free to do in the circumstances that even might result in ∼P.

(B) P is true and there’s nothing anyone is free to do in the circumstances that would definitely result in ∼P.

(C) Necessarily, for all events and all subjects, if a subject is free to make it the case that an event occurs, then it is possible for both that event to occur and for the laws of nature and the state of the universe in the distant past to be the same as in the actual world.

The argument is:

(W1) If A entails B, then thesis C is true.

(W2) If C is true, then compatibilism is false.

(W3) A entails B.

(W4) Therefore, compatibilism is false.
Warfield’s argument is valid. I agree that W2 and W3 are both true.\(^6\) W1 is, as Warfield recognizes, the controversial premise and he argues for it extensively. The crucial step in his argument is the claim that A, B, and C are respectively equivalent to the following three claims:

\[(A') \ P \& \neg \exists \exists x (Fx \& \Box((x \& H) \& \neg P))\]

\[(B') \ P \& \neg \exists \exists x (Fx \& 
\Box((x \& H) \supset \neg P))\]

\[(C') \ \forall x \forall s (Fx \supset \Diamond (H \& x)).\]

Before I show how UMS could influence this discussion, I would like to point out two things. First, Warfield is explicitly committed to OMS in his article. When talking of truth at a state of affairs (maximal or otherwise) he does not distinguish between explicit and implicit truth.\(^7\) Thus, he is committed to OMS5. Further, he moves from \(\Diamond P\) to there being a maximal state of affairs at which P is true. This commits him to OMS1. Examination of his use of “necessary” or “\(\Box\)” show that he is committed to OMS3.\(^8\) Finally, notice how he interprets “in the circumstances” in A and B. He takes this to be “stipulatively equivalent to ‘given the past and the laws of nature.’”\(^9\) This phrase highlights how his semantics is opposed to UMS in that it does not take the depth of the state of affairs to be context sensitive. The state of

\(^6\) Warfield gives a short, but compelling, defense of W3 and a sound argument for W2 on p. 172-3.

\(^7\) Ibid., p. 174.

\(^8\) Ibid., p. 174-175.

\(^9\) Ibid., p. 179.
affairs is completely filled in, including a total state of the world at a time axiomatically. I point these commitments out not as an objection to Warfield but as a preparatory step in showing how a commitment to UMS could influence this debate.

Second, I think the question of how we ought to interpret A and B is up for grabs. Granted, not anything goes. To think A expresses the proposition *Oprah Winfrey is really a Martian* or to think B expresses the proposition *The Cubs won the World Series in 2004* is to think something obviously false. But we should not think that these statements wear their content on their sleeve. Commonsense certainly does not hold that the phrase “S can do something freely in the circumstances and it might result in P,” expresses a proposition equivalent to “There is some X S can do freely such that if S did it then there is some possible world such that the laws of nature and the distant past are the same as the actual world, X occurs, and P is true at the world.” I think this because I think your everyday person on the street has no notion of possible worlds or truth at a world. Additionally, even upon reflection it is not obvious that Warfield’s interpretation is correct. That is because upon reflection OMS is not obviously true. Despite its hegemony, many philosophers still resist it. Additionally, OMS is fairly young. I would find it incredible if OMS was both obvious upon reflection and is such that it only occurred to philosophers fairly recently. Again, this is not to criticize Warfield. Perhaps his interpretation is

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73 See James Ross, 1989, 90. Ross not only objects to the metaphysics he thinks OMS entails but also to its semantic aspects. This is just to say that there is no nominalist theory OMS* that Ross would endorse. Kit Fine also rejects OMS; see Fine, 2003. He may be such he would be willing to accept a nominalist version of OMS. In any case, OMS is not obviously true upon the reflection of current philosophers.

74 OMS has not been the standard in the past. Aristotle denied OMS1. For him, sentences of everyday language that are equivalent to “Possibly P,” express a proposition that is equivalent to
correct, I merely want to argue that a move, for example, from A to A’ is neither obvious, nor uncontroversial.

The crucial step in Warfield’s argument, then, is a semantic one. The soundness of his argument turns upon the question, “What propositions do A and B express?” We all would agree that if statement A expresses a true proposition then statement B expresses a true proposition. The trick for the critic of the argument, who is likely a compatibilist, is to come up with an equally plausible account of what A and B mean. I am now going to show that if UMS is true then Warfield’s move from A to A’ and from B to B’ is mistaken. This is not to say that UMS entails compatibilism. The denial of C’ will require more than just UMS. Additionally, I will not argue for the plausibility of UMS. That is the work of the rest of the dissertation. I will conclude the section with some reflections on UMS and compatibilism.

How should A and B be understood if UMS is true? We can start the same as Warfield and hold that the interpretation should be of the form “P & ~∃s∃x (Fx &…” Going further in translating A and B with UMS is much more difficult. In Warfield’s account the “◊” and the “□” serve to capture the modal nature of “might” and “definitely.” These symbols stand for broad logical possibility and necessity. The “broadly logical” notion acts to give a value to a contextual variable that as we have seen both OMS and UMS acknowledge. Warfield is claiming, and I agree, that

_Sometime in the past, now, or in the future, P is true._ The same thought applies to OMS2 and OMS3. See Simo Knuutilla, 1988, and R. Sorabji, 1980. Leibniz, at least at one point, argues that sentences of everyday languages that are equivalent to “Possibly P,” express a proposition that is equivalent to _No human can demonstrate that P is contradictory._ See his “On Necessity and Contingency,” a letter to Coste in 1707.
these statements are concerned with possibility and necessity at all logically possible worlds/states of affairs, equivalently all metaphysically possible worlds/states of affairs. In translating A and B we are not to think of the necessity or possibility in these statements as nomologically possibility, for example. Despite this similarity, UMS brings another layer of contextualism to the table, the notion of depth. What we need to do then is determine the nature of depth at work before we can give a UMS interpretation of A and B.

Unfortunately, the context in this case is exceptionally scarce. I do not think we can tell what specific proposition is expressed by A or B. What we can do is give a schema for A and B that clarifies their meaning in so far as the context allows. This is not troubling. Consider, for example, a contextualist about “knowledge” because he thinks the word “reliable” is context sensitive and he is reliabilist.75 Faced with a statement “A subject knows P,” the reliabilist will not be in a position to give an interpretation without an adequate context. What he can do is give a schema that would make the statement clear when context is provided. In this case, the schema would look something like this: “A subject knows P” expresses a proposition equivalent to S’s belief that P was produced by a process that is reliable in the relevant situations. Context would fill in for us what the relevant situations are.

Let “♦” stand not for broad logical possibility but instead broad logical possibility according to UMS. The “according to UMS” modifies not the broad logicalness but the nature of the possibility. Similarly let “■” replaces “□.” Let “CW” stand not for the conjunction of the complete state of the world in the distance

75 See Heller, 1995 for someone who holds this view.
past with the laws of nature but instead the conjunction of some of the past of the world, and some of the laws of nature, which ones determined by the context of the statement. We can now give a UMS schema for A and B. It is as follows:

\[(A'')\] \[P & \neg \exists s \exists x (Fx & \mathbf{\square} ((x & CW) & \neg P))\]

\[(B'')\] \[P & \neg \exists s \exists x (Fx & \mathbf{\Box}((x & CW) \supset \neg P)).\]

The schema above differs from Warfield’s in that it needs context to specify the appropriate depth of the state of affairs under question. It takes the ordinary language statement “There is something someone is free to do in the circumstances that might result in \(\neg P\),” and claims it expresses a proposition equivalent to “There is something someone is free to do such that there is some explicitly consistent state of affairs of the appropriate depth in which that something is done, the past and the laws of nature are like ours in the appropriate respects, and \(\neg P\) occurs.”

If someone were to accept UMS, what should he make of Warfield’s argument? Unaided, A’ will not entail B’ anymore than A’ will entail B’. In Warfield’s case, he thinks C’ is true, and it is the case that the conjunction of A’ and C does entail B’. If the proponent of UMS has to accept C’ to get from A’’ to B’’ then UMS does not matter much for this debate. He need not accept C’ however, he can accept this rule:

\[(C'')\] \[\forall x \forall s (Fx \supset \mathbf{\square} (CW & x)).\]

C’’ says that in all explicitly consistent state of affairs of the appropriate depth, if someone is free to do some particular thing then there is some explicitly consistent
state of affairs of the appropriate depth in which the that thing is done and the laws of nature and the past are appropriately similar to the one in which the agent is free to do the action.

Given A′′′, B′′′ and C′′′ we are in a better position to come to a conclusion. If you endorse UMS, and C′′′ in any context, then in any context, as long as you stay consistent, A′′′ entails B′′′. Thus, the proponent of UMS can agree with Warfield that A entails B. What should he make of C and C′′′? He should also think those propositions are true. After all, he endorses C′′′ in any context. There is a context in which “■” and “♦” function like “□” and “♦” and where CW is equivalent to H.

At this point, it does not look like adopting UMS does a lot of work. For UMS to make a difference, we would need to show that there is a way for incompatibilism to be avoided. I think there is, and I will not argue for adopting that way, but I will offer it up as a something to think about. In the last paragraph, I considered someone who accepts C′′′ in any given context. Suppose he rejects C′′′ in any context in which leads to them endorsing C′. This initially looks like a problem. Isn’t there some context in which we can interpret A and B as A′ and B′? Would not we expect A to entail B in any context? Is it really better for the compatibilist if he only sometimes has to deny that A entails B?

The compatibilist will have to take the contextualism one step further. She should endorse:

\[(A′′′) \, P \& \, \neg \exists s \exists x \, (Fsx \, \& \, ♦ ((x \, \& \, CW) \, \& \, \neg P))\]

\[(B′′′) \, P \& \, \neg \exists s \exists x \, (Fsx \, \& \, □ ((x \, \& \, CW) \supset \neg P))\]
The compatibilist at this point might feel like she has given up too much. If she adopts my plan, then in some contexts freedom is incompatible with determinism and in some cases it is not. (This is not to say that freedom is a) contradictory or b) mind dependent. A better, though less provocative, way of stating the last point would be that there are some concepts of freedom that are incompatible with determinism and some that are not. What concept we are expressing when we use words like “free” is context dependent in the same way “possible” is under UMS.)

In favor of the plan, I would point out to the compatibilist some positives about this approach. It allows the compatibilist to interpret statements in a very similar way that the incompatibilist does. For example, she can insist that when we say “Mark is free,” we are saying that Mark can do otherwise. Further, the compatibilist need not rely on any of her typical, but implausible, techniques (such as giving a conditional analysis of freedom.) She can simply say that to be free is to be
able to do otherwise. She can dispense with any commitment to the existence of worlds in which there is something she might do such that if she did it a miracle would occur.\textsuperscript{76} If I were a compatibilist, then I would take my offer.

Additionally, the solution I offer is not implausible as some might make it out to be. The most pressing objection against it would be that it makes morality context sensitive. The objector takes it that this makes the theory unacceptable. I will now briefly show why I think the objection is unsuccessful.

How does the objection work? Suppose contextualism about freedom is true. Then, whether or not we ascribe the property of being free to a particular action of someone will depend on our context. Let Mark perform action $a$. So, it may be the case that Fred says of Mark that he was free to do $a$, while Mary says of Mark that he was not free to do $a$. Further, note that both Fred and Mary could be correct. But, continues the objector, let action $a$ be something like murdering a little old lady for her money. It is also plausible to claim that Mark is either morally responsible for the murder or he is not; the morality of an action is not subject to context. In this case, let us assume we judge Mark to be responsible as long as it was a free act. Here is the problem, Fred will say Mark is free and responsible and Mary will say Mark is unfree and not responsible, and, if contextualism is true, they will both be correct. This contradicts our claim that morality is not context sensitive and so contextualism about freedom ought to be rejected.

\textsuperscript{76} This benefit is not obvious from what I said. The techniques I have offered the compatibilist here can be applied to various versions of the consequence argument and thus would allow her to not adopt Lewis’s solution to the problem.
There is no problem here for the contextualist because she can deny the proposition that “Fred will say Mark is free and responsible and Mary will say Mark is unfree and not responsible, and, if contextualism is true, they will both be correct.” Rather, she can insist a subject S is morally responsible for an action A only if S was free* to A. Here, “free*” refers to the property of being free in a certain context that the contextualist would have to flesh out in more detail. Remember, it is not as if Mark’s action gains and loses a property depending on the way we look at it. Rather, there are multitude of properties we talk of we talk about when we talk about an action being “free.” The contextualist is within her rights to insist that Mark must have a certain amount of freedom to be morally responsible and thus judge Fred’s and Mary’s statements accordingly. What she will do is determine what property Fred is thinking of when he uses the word “free” and what property Mary is referring to when she uses the word “free.” She will then, using her above criteria, determine who is correct.

UMS then, combined with contextualism about freedom, can have an impact on metaphysical debate. In particular, it can allow someone who is so motivated to reject Warfield’s argument for C’. UMS cannot do this all by itself (thankfully, as I and others would look suspiciously on any modal semantic that entailed compatibilism) but it is a necessary part of the compatibilist response. Without it, a contextualist about freedom would lack the resources to appropriate interpretations of A and B along with a suitable replacement for C’.

UMS has a role to play in this debate because a critical part of Warfield’s argument was a claim about how certain modal statements should be interpreted.
Similar moves will be made in the problems I consider in the rest of the dissertation. In many cases we will be confronted with some sort statement that expresses a true modal fact. The argument for one of the propositions in our problem set will depend on a certain interpretation of this statement which depends on OMS. I will reject this interpretation and propose a different interpretation based on UMS. This will allow us to deny one of the problem propositions and thus solve the problem.

In this chapter I have done a number of things. First, I presented OMS and explored different ways in which is used in the contemporary philosophical literature. Second, I presented UMS. Third, I defended UMS against some initial objections. Fourth, I showed how UMS interacts with modal realism and with other philosophical problems more generally. I hope the cumulative effort of this chapter and the one before has been to quell various worries one might have of the project that are independent of its application to any one problem. In Chapter 1, I defended the methodology of the project. In Chapter 2, I showed that UMS is not incoherent, that it need not commit one to modal realism, and that in principle its adoption can influence discussions outside philosophy of language. UMS is not a very expensive theory to hold. Its commitments, in and of itself, are fairly modest and the objections against it are unsuccessful. Much the same can be said of OMS. However, I believe we can solve more problems by rejecting OMS, and in the following chapters I will demonstrate this.
CHAPTER 3:
THE PROBLEM OF MODAL KNOWLEDGE

In this chapter I am going to defend premise 2 of the argument from utility for the acceptance of UMS. In the first chapter I introduced this argument and defended premise 5. In the second chapter, I laid out in detail UMS and compared it to OMS. In this chapter I move on to consider The Problem of Modal Knowledge.

To begin the chapter, I will first present the position of Modal Skepticism. This presentation will serve as an introduction to the next two chapters. Next, I will introduce The Problem of Modal Knowledge. I will then argue for each of its members and for the claim that the problem is important. I will conclude the chapter by showing that by adopting UMS we can solve The Problem of Modal Knowledge.

In the next two chapters, much of what I will say will be about modal beliefs and how we come to believe them. Modal epistemology has recently become a topic of serious philosophical inquiry. Some of this energy is no doubt a response to the position of Modal Skepticism. Van Inwagen, in his paper “Modal Epistemology,” presents Modal Skepticism. The doctrine can be summarized as follows:

(Common) We know everyday modal propositions.

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77 Van Inwagen, 1998a.
(Uncommon) We do not know modal propositions whose subject matter is far away from the concerns of everyday life.

(Failure of Conceivability) No conceivability to possibility hypothesis can be the basis of our modal judgments.

(Mystery) It is a mystery how we know everyday modal propositions.

The next two chapters are a response to the above position. In this chapter, I will embrace Common and reject Mystery. Thus, I will be committed to providing an account of how we know everyday modal propositions. I will reject Failure of Conceivability and argue that there is some conceivability to possibility hypothesis that can be the basis of our modal judgments. In chapter 4 I will consider Uncommon and its relation to The Problem of Metaphysical Failure.

The Problem of Modal Knowledge (TPMK) has as its members the following propositions:

(MK1) We know many simple everyday interesting modal propositions.

(MK2) If we know many simple everyday interesting modal propositions, then we must be able to completely conceive of many various possible worlds.

(MK3) We cannot completely conceive of many various possible worlds.

In this section I will review each of these claims and conclude that this problem is an important problem. Most of the section will focus on MK2 as MK1 is obviously true and easy to motivate, and MK3 will be just as easy to motivate given some explanation.
A quick reminder; I will be motivating MK1-3 from the perspective of OMS. When I use a term like “possible” in this section, unless I say otherwise, I intend it to be understood as if OMS were true. I am doing this because the problem only receives motivation from the perspective of OMS. If I introduced the problem with UMS there would be no problem to solve.

3.1. MK1

As long as the various attempts to prove some sort of global or near global skepticism fail, we should believe that we have knowledge of many simple everyday interesting modal facts. For the purposes of this chapter, it is appropriate to dismiss large scale skeptical claims. There is neither the space to address those claims nor the motivation. Thus, I will focus the remaining part of the section on clarifying MK1 and the motivation for it. MK1 is my attempt to specify in more detail what Common amounts to. By pointing this out, I do not mean to insinuate that the modal skeptic will accept MK1 or my characterization of Common.

First, MK1 is about modal propositions. By a “modal” proposition, I do not mean to refer to propositions that have to do with modality. An example of such a proposition is: If a state of affairs is possible relative to another state of affairs, then it is possible relative to all states of affairs. Rather, I mean to refer to propositions such as: The table could go next to the sofa, The possible times we could meet are.., Necessarily, dragons do not exist, It is impossible to win the World Series without two excellent starting pitchers, and more esoteric propositions such as: It is possible that
*it is necessary that is possible that* 2-2=0, *and Round squares are necessarily impossible.*

Second, MK1 is about *interesting* modal propositions. We know (or could come to know) many modal facts based on our beliefs of non-modal facts. For example, I know that *The garbage in my neighborhood gets picked up on Thursday.* With a little bit of knowledge about modality, I can easily come to know *It is possible for the garbage in my neighborhood to get picked up on Thursday.* After all, actuality entails possibility. Interesting modal facts are facts that cannot come to be known in this way. *It is possible for the Texas Rangers to win the World Series* is an interesting modal propositions, and hopefully (though sometimes I doubt it) one that I know.

I am tempted to think some propositions, such as *It is possible for a woman to hold the title POTUS,* are interesting for every knower. Given that no women has held the title POTUS it would seem that no one could come to know that a women could be POTUS from a deduction from the mistaken belief that a women has in fact been POTUS. If this a correct account of the situation, then we can say that an interesting modal belief is a belief in a modal proposition and is such that the subject did not come to believe that proposition on the basis of their *knowledge* of some proposition and the fact that actuality entails possibility. If it turns out we can come to have knowledge even when we come to that knowledge via a deduction from a falsehood, then we should modify our account of an interesting belief to: an interesting modal belief is a belief in a modal proposition and is such that the subject
did not come to believe that proposition on the basis of their (justified?) belief of some proposition and the fact that actuality entails possibility.  

In any case, note that whether or not a modal proposition is interesting is subject dependent. I have the uninteresting belief that it is possible for a person to hold his breath underwater for eight minutes and fifty eight seconds. Someone else, unaware that a person has in fact held their breath that long, might have the same belief, but for him it would be interesting.

Third, MK1 is about everyday interesting modal propositions. Some modal propositions are not of the workaday sort. For example, Armstrong’s theory of universals is possible, The laws of nature could be different, and It is impossible for someone to survive the biological death of their body and its decomposition are all propositions that, if true, are modal facts and most likely interesting for almost all of us. However, they are propositions that are very different in kind from the following propositions: It is possible for the dresser in Joe’s bedroom to be next to the window in his bedroom, Suzy can attend the meeting, and One can take Interstate 75 to leave Dallas. Call the latter type of propositions “everyday” propositions. These propositions are the objects of almost all of a typical person’s interesting modal beliefs.

The distinction I have in mind here is between propositions whose content is well removed from everyday life and those which are concerned with common affairs. The reason I want to focus on the latter is because there is less reason to be

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78 See Warfield, 2005 for a discussion of whether or not we can come to have knowledge via deduction from false and perhaps even false and unjustified beliefs.

79 See http://www.aida-international.org/current_world_records.htm.
skeptical of everyday modal beliefs. For, one might think that we know modal beliefs via some sort of “modal intuition.” Further, one might suppose that this intuition only works well in the case of everyday modal beliefs. In this chapter, my goal is to explore how we know what modal beliefs we agree that we know. By focusing on everyday ones, I can get as many people on board with premise MK1 as possible. In the next chapter I will give an argument for the conclusion that we do in fact know many non-everyday interesting modal propositions. I will not completely accept this argument, but it should be pointed out that the argument for what is basically the rejection of Uncommon is much more controversial and philosophically weighty then the uncontroversial claim of MK1

Finally, we can separate everyday interesting modal beliefs into those that are “simple” and those that are not. I take the following modal propositions to be simple: 

*It could be the case that a woman plays in a Major League Baseball game; Possibly, I will receive $1000 in the mail from a mysterious gift giver; It is possible for the couch to be moved through the door.* Other propositions are not simple. For example, *Necessarily, God exists, It is possible that it is possible that cats fly, It is impossible for John to have been born to a different mother.* “Simple” might not be the best word to characterize the difference between these two groups. “Positive” would have been better, but unfortunately Chalmers has already used that word to describe a different concept in modal epistemology (as we will see later). In any case, the idea behind this distinction is that some modal beliefs are basically of the form, *Possibly P*, where P does not contain modal concepts such as “possibly” or “necessarily.” I am going to focus on the former type of beliefs for *simplicities sake,*
hence the name. For example, It is possible that it is necessary that I dogs are mammals, is not a simple proposition. The goal here is to focus on the most basic and common modal beliefs. Rarely do the folk ever think in terms of multiple modalities. Further, how we know something is necessary or impossible is an interesting question, but not one I am going to take up here. To explore this issue one would have to consider how it is we get that extra “oomph” that makes necessity and impossibility claims so much stronger than mere possibility claims.

I think it is obvious that we know simple everyday interesting modal facts. When we reflect on our own agency, we come to believe that we could have done many things that we did in fact not do. For example, I know it is possible that I traveled to Japan instead of England for my summer vacation. We know that the furniture of the world could have been arranged differently. The couches on the second floor of Malloy Hall can be put into many different arrangements, though it is likely they will stay just where they are. Further, we know that various events could have failed to obtain and other events could have taken their place. It is possible for the coin to have landed tails instead of heads. John might not have lost all his money in Las Vegas, the ball could have landed on a black number instead of a red. And so on. The fact that we know simple everyday interesting modal facts is a Moorean fact, if there are any. (In the rest of the chapter I will often drop the “simple everyday interesting” qualifier in an effort to make the chapter more readable.)
3.2.MK2

In this section I will attempt to motivate the most controversial of the propositions that compose TPMK. I will begin by presenting an argument for MK2. The purpose of this argument is not to prove MK2 beyond a shadow of a doubt. Given the way MK1 and MK3 have a grip on us, many will see denying MK2 as a way out of the problem. The purpose of the argument, then, is to structure the discussion of the costs of denying MK2. After presenting the argument, I will defend its two controversial premises. We will return to discussing these premises when we look for a solution to TPMK.

3.2.1. The Argument for MK2

As I mentioned in the introduction, I will in this chapter end up rejecting Failure of Conceivability. Thus, I do think there is some conceivability to possibility hypothesis that can serve as a basis for our modal beliefs. Let me say a little about what I take this claim to mean.

A conceivability to possibility hypothesis is some sort of claim that fits this pattern: If a state of affairs S is conceivable, then S is possible. Unfortunately, there are all sorts of ways one might fill in what conceivability and possibility are. Also, one might try to qualify the above claim in some way. For example, one might say that If a state of affairs S cannot be ruled out, then S is epistemically possible. I will not pursue the question of whether or not this proposition is true, but I think it is an interesting and just one of the many conceivability to possibility claims one might make.
The main conceivability to possibility hypothesis I am going to consider in this chapter is one introduced by David Chalmers. It is named, by him, Weak Modal Rationalism (WMR). Weak Modal Rationalism is the thesis that if a state of affairs is ideally primarily positively conceivable, then it is primarily possible. I am not going to go into these terms now, because to do so would interrupt the task of introducing the problem. Rest assured, plenty of ink will spilled in an effort to clarify what Chalmers is up to. For now, the reader can see WMR as being what we typically think of when we think of a conceivability to possibility claim. It says, more or less, than if you can imagine a state of affairs, then that state of affairs is in fact possible. Throughout this chapter, I will speak of a conceivability and possibility hypothesis as being the basis of our everyday modal beliefs. By this I mean that the truth of the hypothesis would allow us, in a particular case of everyday modal belief, to say why it is that the everyday modal belief is justified or has warrant. The hypothesis serves as a basis for the beliefs because it provides a set of conditions that are such that if our conceiving meets those conditions, then we come to have modal knowledge. If a conceivability and possibility hypothesis is true, then we have an answer to the question, “How is it that we come to know simple everyday interesting modal beliefs?”

The argument for MK2 is as follows.

\((\text{ME1})\) Assume we know many simple everyday interesting modal propositions.

\((\text{ME2})\) If we know many simple everyday interesting modal propositions, then WMR is the basis for those beliefs.
**ME3** If WMR is the basis for many simple everyday interesting modal beliefs, then we must be able to completely conceive of many various possible worlds.

Therefore, MK2.

The argument is valid. ME1 is a mere assumption and needs no defense. I will now defend premises ME2. It is the most controversial premise of the argument for the most controversial claim in TPMK. Thus, I will go to considerable lengths to show that ME2 is true. I will discuss ME3 later in the chapter after working through ME2.

ME2 claims that if our everyday modal beliefs are to be thought of as knowledge it must be the case that a certain claim, WMR, is true. One might wonder, “What is the connection between us knowing certain things and the truth of WMR? How do we move from one claim to the other?” Given ME1, we are put in a puzzling situation. We know that we know many interesting modal propositions but we do not know how we can know that a proposition is possible when we do not know that it is true.80 We have several options. First, we can claim that we have a special faculty (other than imagination or our ability to conceive) that provides insight into modal space. Second, we can claim mystery; we know there must be a way but no good answer has been given. Third, we can collapse modal knowledge into some other type of knowledge. The answer to how we know modal truths would just be same answer as how we know some other truth. Or, finally, we can adopt WMR and claim that it is imagination that serves as the basis for our everyday modal beliefs. (Note

80 Van Inwagen, 1998a, p. 251.
that in asking the “how” question we are asking “How do we initially come to know interesting everyday modal knowledge? Presumably, some modal knowledge is gained via testimony. However, not all interesting everyday modal knowledge can come about like this for the same reason the Earth cannot only be held up by a stack of an infinite amount of giant turtles.)

Out of all the options above, the last option is by far the most advocated for position in the literature. This is partly due to initial plausibility of the suggestion. After all, in everyday conversation movement from “I can conceive P” or “I can imagine P,” to “P is possible” is commonplace. For example, a look at the debates after the 9/11 attacks shows that imagination and possibility are closely linked in everyday reasoning. In the executive summary of the 9/11 commission’s report, we find this sentence, “The most important failure [before 9/11 by the U.S. government] was one of imagination.”81 The commission goes on to link imagination and possibility. If military planners and the government had been able to imagine an attack of the magnitude of 9/11, then they would have justifiably seen it as a possibility and planned for it better. (There are, I admit, other interpretations of this case. However, I think the most obvious one is that this statement shows that we believe that we use imagination to know that something is, in some sense, possible.)

Or, consider this case, suppose two married folk are debating what color of paint to paint the kitchen. Suppose the one who is not very good at colors says to the other, “How about we paint it avocado green? Can we do that and not have to repaint the dining room?” In response, the other spouse will imagine the kitchen in avocado

81 See p. 14 of the Executive Summary.
green. Unable to further imagine a situation in which the kitchen is this color and the dining room does not need repainting, the other spouse replies, “No, let’s not paint the kitchen that color.” Implicitly acknowledging that if she could have imagined a scenario in which the dining room did not need repainting, the answer to the above question would be yes.

Further, a brief look at philosophical work shows that the most common way to motivate a claim that some sort of interesting modal fact is true is by providing some sort of story meant to show that we can conceive of a possible world at which P is true. I will present several examples later in this chapter and the next, so one will do for now. Plantinga, in a successful attempt to rebut coherentism, proposes the case of the epistemically inflexible climber.\(^{82}\) Plantinga obviously takes it that the state of affairs involving the climber is possible. Unlike some philosophers, he does not use the words “conceive” or “imagine” in giving his example, so the case is harder for me. However, if we look at how the reader interacts with the case then we can see that conceivability and possibility seem to go hand in hand. Presumably, Plantinga’s goal in writing this paragraph is to get us to come to believe that the state of affairs described is possible. How might this work? Plantinga does not ask us to consider the compatibility of various concepts, or try to rebut objections to his claim. Rather, he tells a story. He engages in act of storytelling, which, like all acts of storytelling, aims to get the recipient to imagine the story in vivid and entertaining detail. My evidence for this is the amount of detail Plantinga puts into the case. For example, he writes:

\(^{82}\) See Plantinga, 1993, p. 82.
At the cost of considerable efforts his [the epistemic unflexible climber’s] partner gets him down and, in a desperate last-ditch effort at therapy, takes him to the opera in nearby Jackson, where the New York Metropolitan Opera on tour is performing La Traviata.83

This and other parts of the example are full of gratuitous information. Plantinga could have ended the above sentence with “takes him to the opera.” Instead, Plantinga embellishes the case. I am not against this, it is enjoyable to read and it serves a point. It creates in the reader a psychological experience; it causes the reader to imagine the case and find it possible.

Finally, conceivability to possibility hypotheses have a long philosophical history. Of course, nihilism does too and that does not make nihilism true. It is, however, reason to take nihilism seriously and WMR’s pedigree should encourage us to take it seriously as well. In Hume, we find:

‘Tis an established maxim in metaphysics, That whatever the mind clearly conceives includes the idea of possible existence, or in other words, that nothing we imagine is absolutely impossible.84

Another Humean, Lewis, writes:

I think our everyday modal opinions are, in large measure, consequences of a principle of recombination…One could imagine reasoning rigorously from a precise formulation of it, but in fact our reasoning is more likely to take the form of imaginative experiments. We try to think how duplicates of things already accepted as possible—for instance, because they are actual—might be arranged to fit the description of an alleged possibility. Having imagined arrangements—not in complete detail, of course—we consider how they

83 Ibid.
84 Hume, Treatise, Book I, Part II, Section II, italics in original.
might be aptly described. If things of these kinds were arranged like this, would that be a world where Saul Kripke is the son of Rudolf Carnap?85

While some may disagree with Lewis about why imagination works, it must be admitted that conceivability to possibilities hypothesizes are not new. They are not merely attempting to justify belief in God, dualism or what not. (Neither of the above two philosophers would endorse the modal premises in, say, the ontological argument for God’s existence or in Descartes modal argument for dualism.) Rather, they are an intuitive account of how we gain modal knowledge.

Thus, it seems like WMR, or something like it, has considerable evidence in its favor. Additionally, the endorsement of WMR and its underwriting of our interesting everyday modal knowledge are also due to the implausibility of the first and third option. Postulating mysterious faculties to cope with a priori knowledge seems ad hoc and desperate. As for the third option, no other realm of our belief bears enough resemblance to modal belief to make this option viable.

At this point, one might object and argue that some sort of modal intuition serves as the basis for our everyday modal beliefs. This postulation of a competing faculty is neither desperate nor ad hoc. For, intuitionism is a common enough position in other a priori areas. I do not have the space to completely rebut intuitionism. I am willing to concede that it may in fact be a competitor to UMS with regards to the TPMK. However, I think there is less to this objection than meets the eye.

Here are some theses that an intuitionist would hold:

85 Lewis, 1986a, p. 114.
(Only Intuition) “Intuition is the source of all a priori knowledge—except, of course, for that which is merely stipulative.”

(No Sense) To intuit something is to have an intellectual experience, not an experiential one. It is not sensory, introspective or imaginative.

Only Intuition and No Sense together imply that no conceivability to possibility hypothesis can be the basis of our knowledge of everyday modal propositions. For, our knowledge of everyday modal propositions is a priori knowledge (remember that I am suppressing the “interesting.”) Thus, if Only Intuitions is true, then intuition is the source of this knowledge. One can say it is the basis of that knowledge. Since intuition is not imaginative, by No Sense, the basis of our knowledge cannot be conceivability.

I am going to deny one of these premises. To some extent, which I deny depends on what the intuitionist means when he talks of intuition. Let us take Bealer’s account of an intuition. Intuitions are not hunches. If a woman has the “intuition” that her husband is cheating on her, she has a hunch, she is not intuiting something. Rather, to intuit something, is to have it seem to one that a certain proposition is necessary. Thus, to intuit that a proposition of the form Possibly P is true, is to have it seem to one that this proposition must be necessary, and so, is of course actual. Finally, I should note that one need not believe what one intuits, but often one will do just that.

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86 Bealer, 2002, p. 73.

87 I am not endorsing this account of intuition. Rather, I am presenting it because such a fine exemplar or intuitionism as George Bealer accepts it.

Given this account of intuition, I am willing to concede No Sense. Instead, I deny Only Intuition. First, I am impressed by the examples given above in support of ME2. Second, my understanding of Only Intuition is such that is meant to be strong enough to rule out conceivability to possibility hypothesizes as a basis for modal knowledge. To do this one has to believe that intuition crowds out the other facilities we have and it is sole basis for everyday modal knowledge. I deny Only Intuition then because I think imagination has an important role to play in this process and can serve as the basis for modal knowledge. I grant that intuition plays a role in this process. When we imagine something, the image or conception we have (which is not necessarily pictorial) sparks a reaction in us. This reaction might be accompanied by or just be an intuition. Also, perhaps sometimes intuition in the Bealer sense works by itself. Fair enough, I do not mean to claim that conceivability to possibility hypothesizes are the only basis for modal judgment. Sometimes, without the help of imagination, I do just intuit Possibly P. However, I do not do that very often, and almost always I do attempt to conceive or imagine in an effort to come up with an answer to the question “Is P possible?”

Additionally, we can see that there is a broader notion of intuition at work most of the time we when think of what an intuition is. Beyond hunches, one is willing to usually use the word “intuition” to describe the process of conceiving. For example, Chalmer’s writes of situations that cannot be perceptually imagined. Call this situation S. He says,

…we do more than merely suppose that S, or entertain the hypothesis that S. Our relation to S has a mediated objectual character that is analogous to that
found in the case of perceptual imaginability. In this case, we have an intuition of (or as of) a world in which S, or at least a situation in which S…  

Talk of conceivability and imagination then might just be one way to explain how this broad use of the word intuition works. If this is the case, then I think Only Intuition loses some of its force. Remember that I granted No Sense because it fell out of the definition of intuition provided by Bealer. However, I think it is fair to say then that his account of it is much too narrow if it is trying to capture the rich mental life we have and the processes we go about using when we philosophize or do any other a priori discipline. The intuition that I think people feel when they consider Only Intuition is due to a misunderstanding and the fact that they are reading it as if it refers to the broad use of the word “intuition.”

If we take intuition broadly, then I would grant Only Intuition but then I would reject No Sense. Further, regardless of what we think of intuition, we still have a mystery about how we come to have modal knowledge. If all we can say is that it just seems to us that some state of affairs is necessary, we might as well be mysterians. Bealer intuitionism, like the mystery position, loses the benefit of giving any account of how we know modal truths. It is obvious that we do know modal truths somehow; calling the process “intuition” does not help us understand it. Conceivability to possibility hypothesizes do help us understand this fact by pointing us to a complex psychological experience that is analyzable and has the ability to be dissected. In the above quote of Lewis, he gives a suggestion about one way this project might go. I will not defend any particular sort of account of why

conceivability works. Rather, I just want to point out that such explanations are available.

Finally, philosophers might endorse ME2 or something like it is because those writing on the subject are optimists. Philosophers have shown time and again a propensity to choose the implausible over mystery. I do not think this is an irrational stance. Concluding that a problem is utterly mysterious is a pricey move. First, it is not simple agnosticism. The endorser of mystery not only refuses to endorse a theory but insists that none of the options available are defensible. Second, she gives up on the benefits of having a true belief about an interesting and important subject. It is true that there is some risk in endorsing a position, but if the position is plausible then the risk must be balanced against the benefits. In the case of the “how” question many philosophers think the benefits to endorsing something like WMR as an explanation is worth the risk.

To sum up, given that we do know many interesting everyday modal truths, we must come to grips with the question of “how do we know these truths?” The most common answer is that we come to know them and ground them in our ability to imagine certain possible worlds. This entails, in short, that conceivability entails possibility. No other credible candidates have been put forth, so if WMR is plausible, then it seems that we should endorse ME2 as opposed to remaining agnostic about the ground of interesting everyday modal beliefs. The plausibility of ME2, then, rests on the plausibility of WMR. This is an important point, for we have already seen that MK1 is going to be difficult to deny. Further, and you’ll have to take my word on it at this point in the chapter, both ME3 and MK3 are difficult to deny. Thus, if I show
that ME2 is plausible then I will demonstrate that TPMK is an important problem. I will now turn to defending WMR, and by extension, ME2 and MK2.

3.2.2. In Defense of WMR

In this section I am going to defend WMR. In the above section I claimed that, roughly, WMR is the position that conceivability entails possibility. The “roughly” papered over many details. Many counter examples have been given to the claim that conceivability entails possibility and it is not easy to make sense of them all. That is because the meanings of “conceivability” and “possibility” are often not adequately spelled out. Thankfully, Chalmers has done significant work in this area and has come up with a version of the conceivability entails possibility thesis that has the virtues of being extremely clear and true. First, I am going to summarize some of the distinctions Chalmers makes to both deal with counter examples to the claim that conceivability entails possibility and to finally give a precise account of WMR. Next, I will give the best argument I can against WMR. WMR will emerge unscathed and I will then present a brief argument for the conclusion that WMR is true. I will conclude by pointing out, somewhat off topic, the upshot for Chalmers of my defense.

Chalmers introduces several distinctions in his work in order to make more clear the position he is advocating. If he claimed that conceivability of any sort is a good guide to any sort of possibility, then he would be subject to several obvious counterexamples. Thus, he distinguishes different types of conceivability. I will briefly provide an explanation of these different types of conceivability. Furthermore, in the chapter I speak of the conceivability of states of affairs. It is, I think, natural to think of states of affairs as the object of our conceiving. Some think,
rather, it is propositions that we are conceiving of. There is very little difference between these two positions. However, Chalmers speaks of the conceivability of statements in his work. He does this primarily to avoid any metaphysical hang ups his readers might have about states of affairs or propositions.

Before discussing the distinctions, it may be useful to clarify, roughly, what it is for a state of affairs to be conceivable. In the chapter I will take conceiving to be an undefined term. Conceiving is a mental act, and like other mental acts, it is hard to define. Conceiving, at least initially, could be thought to be the same thing as imagining. For a state of affairs to be conceivable is for it to be possible that some cognizer conceive of the state of affairs. Note, this does not necessarily threaten Chalmers’s account of “conceivable/conceivability” with circularity. He is not trying to reduce possibility to conceivability. Additionally, sometimes I will speak of a state of affairs as conceivable for a subject. This just means that there is some possible world in which the subject conceives of it.

First, there is a distinction between prima facie conceivability and ideal conceivability. According to Chalmers, where S is a state of affairs, “S is prima facie conceivable for a subject when S is conceivable for that subject on first appearances” and “S is ideally conceivable when S is conceivable on ideal rational reflection.” It is clear that sometimes we believe an impossible state of affairs to be possible in virtue of our conceiving of it, but then, subsequently, reject that state of affairs as “truly” inconceivable. Thus, while it may or may not be the case that some states of affairs are ideally conceivable, we know some are not ideally conceivable. This is not

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to say that when a subject prima facie conceives of a state of affairs he is not conceiving of the state of affairs. Rather, prima facie conceiving is the imperfect practice of conceiving.

For example, one might think one could ideally conceive of a round square. I think some undergraduate students think this when they first consider the idea of a round square. On further reflection, however, such a shape is inconceivable under ideal reflection. For example, one might ask the confused student to draw a round square. The imperfect practice of conceiving allows one to not see the contradiction inherent in a round square or not fill in one’s imagination in more detail so that the contradiction is visible. Another example: consider a story involving an infamous barber who shaves all and only those people who do not shave themselves. Fred, upon hearing this story, considers the story conceivable. If the story was turned into a long state of affairs, S, then Fred would consider S to be conceivable. However, with a little prodding from his logician friends, he comes to see that if he works harder at clearly conceiving of S, he comes to the conclusion that he really can’t conceive\(^\text{91}\) of it. Asked to explain his initial experience, Fred remarks, “I just wasn’t being careful enough. If I had thought through the state of affairs, I would not have been able to think of it consistently.” This distinction attempts to give an account of this experience.

There are a couple of characteristics of ideal conceivability that should be pointed out. First, one might assert that ideal conceiving may be outside the scope of

\[^{91}\text{Often times, when we speak of a state of affairs being (in)conceivable without any qualification there is an implicit “ideally” added to the front. That is why Fred might say, “S is inconceivable,” and also consistently say, “S is prima facie conceivable.”}\]
human abilities. That is, ideal conceiving may necessarily be an activity that only beings with cognitive powers much greater than ours can attempt. At this time, I think it is safe to assert the weaker claim that there are some states of affairs that we cannot ideally conceive of. Later in the chapter I will explore the stronger claim that we cannot ideally conceive of any state of affairs. Additionally, ideal conceivability should not be thought of as a property of states of affairs that guarantees that if the state of affairs is possible then an ideal modal reasoner would know that it is possible. Such an account threatens to make Chalmers’ claim trivial. Rather, ideal conceivability should be thought of as the perfect practice of the technique of conceiving of a state of affairs.

An objection to the above line of reasoning goes as follows: “Suppose you have an ideal modal reasoner, call her IR. Consider any proposition P. If P is true and she does not know it, then she is not an ideal modal reasoner, because then she would not be an ideal reasoner (after all, an ideal reasoner would know everything.) If P is false and she believes it, then she would not be an ideal modal reasoner (after all, an ideal reasoner would not have any false beliefs.) Thus, an ideal modal reasoner would know everything and have no false beliefs. WMR is trivial.” The problem with this objection is that it does not take into account the fact that to be an ideal modal reasoner is merely to possess a certain type of skill, it is not to have actually exercised that skill. So, you can have an ideal modal reasoner who does not know anything. In the same way you can have an ideal pitcher who has never thrown a pitch. Further an ideal modal reasoner is only ideal with respect to her ability to conceive of states of affairs. She may in fact believe all sorts of propositions (even
modal ones) that are false. In the same way you can have an ideal pitcher whose batting average is .001. The idealness is possessed in only a limited part of the reasoner’s/pitcher’s skill set.

The above example can help us clarify what it is to be an ideal conceiver. It is to perfectly grasp the content of one’s imagination and to describe it accurately. If one is an ideal modal reasoner, then when one imagines a state of affairs S, one forms a perfect picture of it in one’s mind, leaving no details out.

This does not necessarily mean that we are not ever ideally conceiving of a situation. With respect to basic arithmetic, for example, I think I am an ideal mathematician when I go about adding 2+1, 5+1, etc. True, one would not describe me as “ideal mathematician” because I sometimes screw up. However, that does not change the fact that I can, at times, ideally add. In the same way, it still might be the case, that, at times, we ideally conceive.

Second, there is a distinction between positive and negative conceivability. A state of affairs S is negatively conceivable when “S is not ruled out.” Consider a man named Smith who is asked if he can conceive of the state of affairs, “There is a barber who shaves all only those who do not shave themselves.” Unfortunately, Smith is no logician. Thus, he responds that he cannot rule out the state of affairs. However, he also claims that he can form no clear image of what sort of barber we are talking about, and so responds that he isn’t sure if it is possible either. To rule S out is to identify a contradiction in S. Thus, some states of affairs can be negatively conceivable for a subject—because he cannot point to the contradiction in them or

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92 Ibid., p. 149.
recognize them as inconsistent—but still be inconsistent. Consider Goldbach’s conjecture. It seems that either the affirmation or denial of this conjecture is conceivable; however either the affirmation or the denial must be impossible.

According to Chalmers, each of these states of affairs is conceivable in the sense that we cannot rule either one of them out. What we do not do is imagine a situation that we take to verify one of these states of affairs. If we tried to do this, the best that we could do is imagine a situation where some mathematicians stand around a computer and proclaim “Goldbach’s conjecture is true!” Such a situation would merely verify the state of affairs “its being the case that some mathematicians think Goldbach’s conjecture is true”.

S is positively conceivable when a person conceiving of S can “modally imagine a situation that verifies S.” Modal imagination is a type of imagination where the content of the imagination is taken to verify S. This imagination is called “modal imagination” because the content of the imagination is taken to be a state of affairs (not necessarily maximal). As Chalmers writes:

“Modal imagination” is used here as a label for a certain sort of familiar mental act, and like other such categories, it resists straightforward definition. But its phenomenology is familiar. One has a positive intuition of a certain configuration within a world, and takes that configuration to satisfy a certain description…To modally imagine Germany winning the Second World War, one might imagine a world in which certain German armies win certain battles and go on to overwhelm Allied forces within Europe.

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93 Ibid., p. 153.
94 See Yablo, 1993, for an extensive account of modal imagination.
For example, consider this quotation from David Lewis’s work:

A sorcerer takes a liking to a fragile glass, one that is a perfect intrinsic duplicate of all the other fragile glasses off the same production line…He only watches and waits, resolved that if ever his glass is struck, then, quick as a flash, he will cast a spell that changes the glass, renders it no longer fragile, and thereby aborts the process of breaking.97

Here, Lewis is attempting to provide an example of a finkish disposition. (A finkish disposition is a disposition that goes away when the trigger to the disposition comes into contact with the disposition.) He provides the example not by pointing to a case in the actual world but by asking the reader to imagine a situation. Lewis takes it that by imagining this situation we are imagining something that verifies the state of affairs that “it is possible that there are finkish dispositions.” This is a case of a state of affairs being positively conceivable.

At this point someone might point out that when a person negatively conceives of a situation, she is not engaging in anything that looks like imagination.

Thus, negative conceiving is not “real” conceiving as I characterized it. Fair enough. Chalmers agrees and says the following:

Positive conceivability, rather than negative conceivability, seems to be what most philosophers have had in mind when discussing conceivability…When Yablo [in the article cited] dismisses the first Goldbach example as not really

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96 I grant that Chalmers invokes some sort of notion of intuition here. As I said before, I do not deny that intuition plays some role in the process of imagination. I deny that a) intuition is doing all the work, b) intuition, in Bealer’s sense, is the only thing that serves as a basis for modal knowledge, and c) that the process of intuiting modal beliefs typically comes without phenomenological or psychological baggage.

97 Lewis, 1997, p. 133.
being an instance of conceivability, he is in effect saying that negative conceivability is not true conceivability, and there is something to this.  

Finally, we must make a distinction between primary and secondary conceivability. Chalmers introduces this distinction to deal with a particular class of counterexamples. In response to his conceivability entails possibility thesis, many would point to “a posteriori necessities.” Saul Kripke is one of the first to make use of these necessities. A full solution to the problems posed would require a robust theory of reference and a detailed exploration of philosophy of language. I do not want to attempt that here. Rather, I will briefly lay out the supposed counterexample and then respond in an intuitive but rough and ready fashion.

Consider the state of affairs, “Water is composed of XYZ” (where XYZ is some alien molecular configuration, not the same as H2O). It seems that state of affairs is impossible. Water couldn’t have been XYZ. Water is identical to stuff in our oceans; water is identical to H2O. Everything is necessarily identical to itself, so in worlds where XYZ exists, water is still H2O and XYZ ≠ H2O. Thus, “Water is composed of XYZ” is impossible because it is not possible for water to not be identical to H2O. However, it seems that it is conceivable that water not be identical to H2O. Some thinkers, before they knew what water is in this world, probably had all sorts of hypotheses about what water is made up of. These hypotheses could take the form of statements such as, “Water is composed of XYZ.” There was no

100 Chalmers does offer a robust philosophy of language to compliment his epistemic project. See the works cited and Chalmers, 1996.
contradiction in supposing that many of these states of affairs where these propositions are true could be conceivable. Additionally, the thinkers could imagine states of affairs that would verify that these states of affairs were possible. Thus, “Water is composed of XYZ,” seems to be conceivable and yet is not possible.

Consider a modern example. These two states of affairs seem to be conceivable, “Quarks are superstrings,” and “Quarks are point particles.” Both of these states of affairs seem to be conceivable because we have certain roles, those of all the quarks, that need to be filled and it seems that both superstrings and point particles fill them. For example, quarks need to exhibit certain forces. We can develop theories and imagine superstrings (and other types of objects) as having these forces. Suppose superstrings do not turn out to be quarks. That is, suppose quarks just are those other non-string like objects in the same way water just is H2O. Quarks could not be superstrings then, in the same way water cannot be XYZ. Quarks would be identical to something that would be not identical with superstrings. Therefore, according to the objector, “Quarks are superstrings,” is conceivable but not possible.

There are two types of replies that I have for this type of objection. First, the objector may be right. If so, then we can read Chalmers project as dealing with a priori necessities and not a posteriori necessities. That is, only when dealing with non-empirical states of affairs\textsuperscript{101} does conceivability entail possibility. So in states of affairs like “Water is H2O,” conceivability would not be a good guide to possibility.

\textsuperscript{101} Let a non-empirical state of affairs be a state of affairs whose subject matter is not about the physical makeup of the world. States of affairs about whether brain states are identical to mental states will be empirical states of affairs. States of affairs about whether trope theory is true would be non-empirical.
This is not an *ad hoc* response because it is clear that a posteriori necessities only come up in the context of identifying certain objects with what composes them. If we can avoid such necessities then Chalmers’s project can be maintained, albeit with a restricted scope. I do not think this is the best response.

The second response is to make distinctions between the different things we might mean when we assert that the state of affairs, “Quarks are superstrings,” is possible. We might mean that there is a world such that quarks (pointing to the things in this world) are identical to superstrings. On the other hand, we might mean that there is a world such that there is a role, defined by the relevant properties of quarks in this world, which is occupied by superstrings. Given this distinction, it is not contradictory to hold that a) there is no world in which superstrings are identical to quarks and b) there is a world in which superstrings play a role similar (if not identical) to the role quarks play in our world. Additionally, when Fred conceives of the state of affairs, “Quarks are superstrings,” we must distinguish between Fred imagining a world in which quarks are identical to superstrings and a world in which superstrings are playing the quark role.

Given these distinctions, we can see how conceivability can still be a good guide to possibility in the case of a posteriori necessities. Roughly, when Chalmers says a state of affairs is primarily conceivable, he is saying that a state of affairs is conceivable when interpreted as having to do with roles and role-players and not with identity. For example, “Water is not H2O,” is primarily conceivable because we can imagine a world in which the water role is not played by H2O. Secondary conceivability is conceivability with regard to identity interpretations. Thus, “Water
is not H2O,” is not ideally secondarily conceivable because no one can consistently imagine a world in which H2O is not H2O. Again, roughly, when Chalmers says a state of affairs is primarily possible, he is saying that the state of affairs is possible if it is specified according to the roles of the subjects and not according to what they are identical to in this world. Therefore, “Water is XYZ” is primarily possible because there is a world in which the water role is played by XYZ but secondarily impossible because there is no world in which H2O is identical to XYZ. This distinction is important because it wards off potential objections. Consider the objector’s claim that “Water is XYZ” is conceivable but impossible. If we interpret the state of affairs consistently it will turn out that the state of affairs is both primarily conceivable and primarily possible or it not secondarily conceivable and not secondarily possible. Essentially, Chalmers’ response to the objectors is that if they are careful about interpreting state of affairs consistently, it is obvious that primary conceivability will be a good guide to primary possibility.

Chalmers argues that conceivability entails possibility. In particular, he has argued for what he calls pure modal rationalism. Pure Modal Rationalism is the thesis that a state of affairs is ideally primarily positively conceivable iff it is ideally primarily negatively conceivable iff it is primarily possible. Pure modal rationalism entails the weaker thesis, weak modal rationalism. Weak modal rationalism holds that if a state of affairs is ideally primarily positively (IPP) conceivable, then it is primarily possible. (For the remainder of the chapter I will drop the “primary” from “possibility”.) I intend to show that there are some reasons to suspect that weak
modal rationalism (WMR), and, by extension, pure modal rationalism are false. However, despite these reasons, I will give an argument to show that WMR is true.

I need to provide a compelling instance of what Chalmers calls “strong necessities” to show that it is likely that WMR is false. A strong necessity is “a [state of affairs] that is falsified by some [ideal primary] positively conceivable situation (considered as actual), but which is nevertheless true in all possible worlds (considered as actual).” Chalmers considers several candidates for the role of a strong necessity but rejects them all.

I believe that Chalmers has not found an example of a strong necessity because he has not looked in the right place. Specifically, states of affairs dealing with metaphysical matters provide ample cases of potential strong necessities. In this chapter I am going to elaborate on one such case, that of the state of affairs “endurantism is true.” After considering this state of affairs, I will argue that Chalmers faces a dilemma; he must either concede that WMR is false or he must concede that few apparent instances of IPP conceivability are genuine instances of ideal conceivability. When it is all said and done I believe that Chalmers should not concede that WMR is false. A rejection of WMR is, I will argue, incoherent.

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103 Ibid., pgs. 189-194. For the most part, I agree with Chalmers’s rejection. I believe that he rejects the claim that “either ‘God exists’ or ‘God does not exist’ is a strong necessity,” too quickly.

104 I take a metaphysical state of affairs to be a state of affairs that expresses some purported metaphysical proposition. A metaphysical proposition is, roughly, if true, truth about how the world is fundamentally. A proposition about the nature of time is a metaphysical proposition; a proposition about the number of wolves in Yellowstone is not a metaphysical proposition.
Instead, Chalmers should concede that there are many merely apparent instances of IPP conceivability.

A good strategy for demonstrating that a strong necessity exists is as follows. First, find some state of affairs S such that if S is possible then S is necessary. Next, demonstrate that both S and ~S are IPP conceivable. Given that not all states of affairs are ideally conceivable (at least for us), the reader might note that this demonstration will prove to be difficult. I agree. The best I think we can do for a given state of affairs S is provide a) clear cases of cognizers whom we take to be rational conceiving of S and b) show that if S is not taken to be a case of IPP conceivability then some other part of our thought is inconsistent. For example, a rational subject might use S in argument in such a way that if it was not IPP conceivable then it would not do the work he intended it. The plausibility then of denying that S is IPP conceivable will have to be weighed against the plausibility of asserting that the subject is irrational in his ascriptions of IPP conceivability. Third, by WMR it will follow that S and ~S are both possible. This leads to a contradiction because if S is possible then it is necessary and so ~S is impossible. However, ~S is possible. Therefore, if S and ~S are IPP conceivable, then WMR must be false.

The state of affairs “endurantism is true” is a state of affairs that if possible, is necessary. Additionally, its negation “perdurantism is true” is a state of affairs that if possible, is also necessary.105 (I use “endurantism” to refer to the theory that if objects persist they do so by being wholly present at more than one time. “Perdurantism” is the thesis that if objects persist they do so by not being wholly

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105 I will deal with objections to these claims later in the chapter.
present at more than one time. I take it that perdurantism entails the denial of endurantism and vice versa. I stated the above definitions conditionally because I believe that facts about the nature of persistence would be true even if there were no objects. Additionally, because I find it plausible and for simplicities sake, I will take it that endurantism and perdurantism are mutually exhaustive. Thus, if there is a truth about persistence in a world, that truth is either endurantism or perdurantism.) Either state of affairs is falsified if the other state of affairs is possible. Both of these states of affairs seem to be IPP conceivable. I will defend these claims in greater detail in the next section. For now I will merely attempt to make this claim plausible.

Consider contemporary endurantists and contemporary perdurantists. If questioned whether their position is consistent both endurantists and perdurantists would, obviously enough, insist that their respective position is consistent. The reason for this insistence is that members of both camps presumably believe that they can consistently conceive of a world in which their position holds (perhaps they conceive of the actual world). That is, they can, respectively, conceive of a world that verifies either the state of affairs “endurantism is true” or the state of affairs “perdurantism is true.” Thus, these conceptions are both primarily and positively conceivable. In addition, it seems that both conceptions would have to be taken as cases of ideal conceiving. If not, then they would be cases of prima facie conceiving. However, mere prima facie conceiving would not show that either endurantism or

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106 According to this definition, Sider is a perdurantist. I think that is a fair assessment of his view. Some may disagree. For those disagree, feel free to change the definitions above and run the following arguments on those definitions. The overall point of the section will not change. Also, some might object to the definition because they think the locution “wholly present” is incoherent. Again, those readers should feel free to substitute their own definitions.
perdurantism is consistent. That is because inconsistent positions are often prima facie conceivable. It is only ideal conceivability that could ground the consistency of a position. Thus, advocates of each position would insist that they are ideally conceiving of the situation. Therefore, there seem to be cases where both the perdurantist and the endurantist can IPP conceive of a situation that verifies “endurantism is true” or “¬endurantism is true” respectively.

It is important to point out that I am not making the claim that given any necessary state of affairs S, as long as there is some person willing to defend S as being consistent and there is another person willing to defend ¬S as consistent then both S and ¬S are IPP conceivable. For example, it seems that there might be someone, a poor mathematician, who insists that “two plus two does not equal four” is consistent. It does not follow that we have good reason to think that this state of affairs is IPP conceivable. The difference between the above metaphysicians who each claim that one of two contradictory positions is consistent and the persons disagreeing about the sum of two plus two is that there is a case to be made that the metaphysicians are ideally conceiving. It is obvious that the poor mathematician is not ideally conceiving of his position because there is an obvious inconsistency in what the mathematician asserts. Our ability to point to this inconsistency is evidence that even non-ideal rational agents can see that the state of affairs “two plus two does not equal four” is inconceivable. With regard to states of affairs about endurantism there is no such obvious contradiction in the endurantists or perdurantists positions. Additionally, there is no obvious place to look to find the supposed inconsistency. Given a well worked out metaphysical system, the endurantist or perdurantist often
seems to have “covered all their bases.” In short, it seems to me that if a subject asserts that S is consistent and can be positively conceived of and there is no inconsistency in S that we can point to, then that is good evidence that S is indeed IPP conceivable.

In addition to the examples above, there is another way to demonstrate the IPP conceivability of both endurantism and its negation. A brief look through the philosophical literature on persistence will reveal the following two facts.

First, it is rarely the case that an endurantist or her opponent would argue that the opposing side is inconsistent. Instead, the general strategy is to make the opponents’ positions appear less desirable. For example, van Inwagen does not charge perdurantism with inconsistency but instead shows that it entails counterpart theory.\(^{107}\) (More accurately, he thinks that the perdurantist has to adopt some parts of counterpart theory. In particular, the perdurantist “must adopt a counterpart-theoretical analysis of modal statements about individuals.”\(^{108}\)) He thinks counterpart theory is a strike against perdurantism but does not argue that counterpart theory or perdurantism is inconsistent.

I take this to be a point that applies to most, if not all, metaphysical debates. This trend indicates that either side of a position is, in some sense, conceivable. To take another example, David Lewis does not argue that other accounts of the metaphysics of possible worlds are incoherent but instead argues that they “cost too much”; they are not, as advertised, “paradise on the cheap.” As he writes, “the

\(^{107}\) See van Inwagen, 1990b.

\(^{108}\) Ibid., p. 120.
hypothesis [of there being a plurality of concrete worlds] is serviceable, and that is reason to think that it is true.”

Indeed, it seems that many would be willing to concede that an ideal rational agent would be able to conceive of opposing metaphysical positions without finding any contradiction internal to one of the positions. Metaphysics, then, would be an exercise in weighing costs and benefits and not an exercise in a priori refutations of different positions.

Second, the majority of arguments for either position rely on the ability to conjure up a thought experiment and show that this experiment verifies a state of affairs S or falsifies ~S. This reflection takes the form of modally imaging a world, perhaps our own, and reasoning from the nature of persistence in this world to the conclusion endurantism is true in that world. Again, this is typical of metaphysical debates. The prevalence of this philosophical technique is good evidence that “endurantism is true” and its negation are positively primarily conceivable.

A strong case can be made for the conclusion that the state of affairs “endurantism is true” and its negation are both IPP conceivable. Both states of affairs have proponents who claim that an ideal conception of the actual world verifies their respective claim and both states of affairs are examples of a general trend in metaphysics. This trend indicates that two opposing metaphysical positions are ideally, positively, and primarily conceivable. Given that “endurantism is true” and its negation are both necessarily true if possibly true, it follows that if both

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109 Lewis, 1986a, p. 3.

110 See Sider, 2001, p. 140 for a good description of this behavior.

111 For an endurantist example, see Craig, 2000, p. 200-201. For a perdurantist example, see Sider, 1996.
“endurantism is true” and its negation are IPP conceivable, then WMR is false. Therefore, a strong case can be made for the conclusion that WMR is false.

There are several unsuccessful objections that can be made against the above argument. I will attempt to address some of these objections in this section.

First, it may be argued that either “endurantism is true” or its negation is not primarily conceivable. This objection is a non-starter because metaphysical conceivability is paradigmatically a priori and primary. Reasoning about the essential nature of persistence is reasoning about non-empirical facts and has nothing to do with the identity of various objects in the world.

Second, it may be argued that either “endurantism is true” or its negation is not positively conceivable. This objection also fails. Negative conceivability is the mere inability to rule something out. The proponents of endurantism, for example, do not think that their position is merely conceivable in this sense. Rather, they hold that consideration of various states of affairs (that is, considering various thought experiments or possible worlds) will verify to the cognizer that endurantism is true. Additionally, they would maintain that they could positively conceive of the actual world, a world they would take to be an endurantist world. The perdurantists would make similar claims.

Finally, it could be argued that neither the state of affairs “endurantism is true” nor its negation is necessary if possible. I find this objection unconvincing. States of affairs known by a priori means are, almost always, such that if actual they
are necessary.\textsuperscript{112} For example, consider these states of affairs which are such that many find them actual by a priori means: “bachelors are unmarried adult males,” “2+5=7,” “contradictions cannot be true;” “knowledge is not simply justified true belief,” and “uninstantiated universals do not exist.” Suppose the state of affairs “knowledge is not simply justified true belief” were not necessary if actual. Then it would follow that supposed Gettier examples would not be counter examples to the JTB analysis unless those examples were actual. For, if the counterexamples were not actual, then they would merely be possible, and it is not contradictory to claim that P and possibly not P if P is not a necessary state of affairs. So it seems that the JTB analysis must be a necessary state of affairs because its counterexamples work not because they happen to be actual but because they are possible and the state of affairs they are refuting is necessary. The fact that in a similar way fantastic counterexamples are given against perdurantism and endurantism is evidence that they are thought to be necessary if possible.

Some might be uncomfortable with the move from the epistemic to the metaphysical. In that case, consider the following argument. What makes endurantism true (and claims about the nature of knowledge true) is not a contingent state of affairs. The truthmakers for state of affairs/propositions about the nature of knowledge and the nature of persistence exist necessarily and so endurantism must be necessarily true if possibly true. Why do I think this? Because I know of no

\textsuperscript{112}See Plantinga, 1974, pp. 6-8. There he gives a case of a contingent state of affairs known to be actual by a priori means. His example, however, exploits the peculiar indexical property of subjective states of affairs. It is not a threat to my claim.
contingent fact that would even be relevant to whether endurantism is true (or for that matter the JTB analysis of knowledge).

At this point someone might object in the following way: “Suppose I notice an actual Gettier case, isn’t that a contingent fact that matters to a JTB analysis? Similarly, suppose I notice an actual Ship of Theseus case, isn’t that a contingent fact that matters to the truth of endurantism?” In response I would point out that their actuality has nothing to do with their relevant force in the argument. Suppose we were wrong and the Ship of Theseus case was not actual; its possibility would still be a threat to endurantism. Sometimes the actual world provides potential counterexamples to certain claims. Such instances do not show that the truthmakers for those claims are contingent.

One might still be unsatisfied with my claim that “endurantism is true” is a necessary state of affairs if it is a possible state of affairs. Perhaps one is (overly) impressed with arguments for perdurantism based on the theories of special relativity or general relativity. I think in that case we are still dealing with a case in which the actual world is offering up a potential counterexample. In any case, my argument can still go through. Instead of “endurantism is true,” consider the states of affairs “universals exist and are abstract objects,” “freedom is necessary for moral responsibility,” “compatibilism is false,” “possible worlds are set-theoretic entities,” etc. I am confident that each of the debates over these metaphysical states of affairs reflects trends I am pointing out in the chapter and that each of these is necessary if possible.
So “endurantism is true” is either necessary or impossible. If states of affairs about the nature of persistence were not known to be actual by a priori means then we would expect arguments about the nature of persistence to rely on contingent facts. However, the arguments for and against endurantism are a priori if anything is.

The only option left for the defender of WMR is to clam that either “endurantism is true” or its negation is not ideally conceivable. It is to this objection that I now turn.

If WMR is to succeed, then its supporters must argue that while the state of affairs “endurantism is true” and its negation are both primarily positively conceivable, one of them must not be ideally conceivable. There are two good reasons to think this is the case.

First, while the proponents of endurantism and perdurantism may hold that their position is ideally conceivable, many would argue that their opponents’ position is, at best, merely prima facie conceivable. Second, while metaphysical systems often seem consistent, we often discover inconsistencies in them at a later time. This reasoning points to a significant tension in the practice of metaphysics. As I argued above, many philosophers would concede that rival metaphysical systems are consistent. Lewis’s work in particular is noted for its emphasis on a cost-benefit analysis of different positions. On the other hand, many have the belief that ultimately one position will be demonstrably superior because all of its rivals will be shown to be inconsistent.
I am going to attempt to resolve this tension by offering an argument for WMR. After giving this argument, I will address the tension in metaphysical practice. The argument is as follows:

(WMR1) Assume that WMR is false.

(WMR2) By WMR1, it follows that there is some state of affairs, S, such that S is IPP conceivable but S is impossible.

(WMR3) If S is impossible, then S is inconsistent.

(WMR4) If S is inconsistent, then S is not IPP conceivable.

(WMR5) By, WMR2, WMR3, and WMR4 S is not IPP conceivable.

(WMR6) S is both IPP conceivable and not IPP conceivable.

Therefore, WMR1 is false. WMR must be true.

I will now give motivation for each premise.

WMR1 is a mere assumption and needs no motivation. WMR2 necessarily follows from WMR1 based on our definition of WMR. WMR5, WMR6 and the conclusion all follow from WMR1-4 by logic. Thus, only WMR3 and WMR4 need motivation. WMR3 is a metaphysical claim and WMR4 is an epistemological claim. WMR3 asserts a tight connection between consistency and possibility and premise WMR4 makes a claim about the ability of ideal conceivers. It is to their defense that I now turn.

WMR3 is the claim that if a state of affairs is impossible, then it is inconsistent. By impossible, I simply mean not possible. Thus, my support for
WMR3 will hinge on what is meant by “possible.” If by “possible” I mean nomological possibility then it is clear that premise WMR3 is false. After all, there seem to be many states of affairs that are not nomologically possible but are consistent. For example, consider the states of affairs “I can sprout wings and fly,” or “Thousands of people can be fed with just a few loaves and a fish.” Neither of these states of affairs is nomologically possible but neither is inconsistent. A different notion of possibility is needed to defend WMR3.

The notion of possibility I propose to use is “absolute” possibility. Absolute possibility is the type of possibility we are concerned with when we consider possibility most broadly or generally construed. An absolute possible world might be characterized as a world that God could have created. An absolute possible world is a way the actual world could have been.

In support of WMR3 I offer this brief argument. I admit that this argument probably will not convince the reader that WMR3 is true. Additionally, the reader may find certain concepts in it objectionable or unintelligible. When I reflect on WMR3 I find it to be obviously true. This argument is my attempt to make the obvious more intelligible. (3A) If a state of affairs is consistent, then it follows that the state of affairs is broadly logically possible. (3B) If a state of affairs is broadly logically possibly, then it follows that the state of affairs is absolutely possible. Through simple logic one gets (3C): If a state of affairs is absolutely impossible then it is inconsistent.

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113 By “consistent” I mean broadly logical consistency, not consistency within a given system.
3A does not need much motivation. Since the notion of logic used in “consistency” is broad, it seems a state of affairs would, of course, be in the same sense possible if it were consistent. A refutation of 3A would require the objector to develop an independent notion of broadly logical possibility and show that this rules out some broadly logically consistent state of affairs that does not fit this notion. I have doubts that the objector could do this.

With regard to 3B, consider a state of affairs S that is broadly logically possible but not absolutely possible. The natural question to ask is “why is S not absolutely possible?” There seems to be no good answer to this question. The impossibility of S is not grounded in broad logical impossibility so it must be grounded in something else. The objector to this premise holds that there is something in our conception of absolute possibility that makes it a narrower type of possibility than broad logical possibility. But what would this notion be? It cannot be a narrower notion of logical possibility. If that was the case then it would be tantamount to saying something like 1st order logic as found in system X is the logic of absolute possibility. It seems obvious that our notion of absolute possibility is bigger than any logical system. In fact, this is the reason we take it to be an open question as to how successful and useful such systems are. There is an intuitive grasp that no system is sufficient to demarcate the ways things could be. As far as I can tell there is no reason to suspect that our notion of absolute possibility is more restricted than the notion of logical possibility.

In fact, based on what we consider impossible, it seems that all we mean when we speak of a state of affairs being absolutely impossible is that it is inconsistent. For
example, the state of affairs “round squares exist” is impossible. Why? It is
inconsistent to assert that something exists and has two contradictory properties, in
this case having four straight sides and not having four straight sides.

The proponent of a distinction between absolute and logical possibility needs
to give an account of what it is for a state of affairs to be absolutely impossible. This
account must not ground the impossibility in the inconsistency of the state of affairs.
Furthermore, if there is a distinction between logical and absolute possibility then
presumably there will be some state of affairs that is absolutely impossible and
logically possible. I can think of no such state of affairs, perhaps the objector can.
Thus, premises 3A and 3B are true. Consequently, premise WMR3 is true.

The astute reader will have noticed that WMR3 is, or is a close approximation
of, the denial of the distinction between “metaphysical possibility” and logical
possibility. Because this distinction has, at times, been held in high regard I would
like to make a few more comments in support of WMR3. Intuitively, my notion of
absolute possibility is logical possibility. I am in good company. Plantinga writes
that a possible world is “a way things could have been; it is a way the world could
have been.” Later, he writes that “A possible world, then, is a possible state of
affairs—one that is possible in the broadly logical [emphasis mine] sense.”\textsuperscript{114} It is
clear that he identifies what I call absolute possibility with logical possibility. I
believe this is the general trend. Consider this excerpt from Lewis, where he is
considering what possible worlds there are (that is, what the scope of absolute
possibility is):

\textsuperscript{114} Ibid., p. 44.
To express the plenitude of possible worlds, I require a principle of recombination according to which patching together parts of different possible worlds yields another possible world. Roughly speaking, the principle is that anything can coexist with anything else... Thus if there could be a dragon, and there could be a unicorn, but there couldn’t be a dragon and a unicorn side by side, that would be an unacceptable gap in logical space... [emphasis mine]¹¹⁵

In short, Lewis is claiming that any logical combination of things is a possible world. Impossibility for Lewis is what is inconsistent.

I believe that our intuitions about absolute possibility match up neatly with our intuitions about logical possibility. Additionally, two problems remain for the objector who wants to argue that absolute possibility is metaphysical possibility. First, given that absolute possibility is not obviously (if at all) metaphysical possibility, the objector will need to give a separate account of what metaphysical possibility amounts to. Absent this account, the objector must not only take logical modality as primitive (like, as I suggested in the beginning, we all do), he must also take metaphysical modality as primitive. Second, the objector must come up with a clear case of a strong necessity. If he cannot, then it does not show that WMR is true. It does, however, call into question the motivation for his position.

WMR3 is true. What about premise WMR4? WMR4 holds that if a state of affairs is IPP conceivable then it is also consistent.¹¹⁶ Consider a counterexample to this claim, let S be a state of affairs that is IPP conceivable and is also inconsistent. Consider an agent who is perfectly conceiving of S. If S is inconsistent would not the agent see that S is inconsistent? The inconsistency of S would have to lie either in

¹¹⁵ Lewis, 1986a, pp. 87-88.
¹¹⁶ Again, I am using the notion of broad logical consistency.
the explicit contradiction of the content of S or in some implicit contradiction that falls out of the content. If a conceiver did not see the explicit inconsistencies then the conceiver is obviously not ideally conceiving. Further, part of ideally conceiving is the ability to fill in the details of what one is seeing. (Though not necessarily all the details. Unless forced, we do not want to hold that if a conceiver ideally conceives of a state of affairs, then the conceiver knows all necessary truths.) Thus, it seems as if the conceiver would be able to tell if there was an implicit contradiction. I do not see how S can be inconsistent and such inconsistencies could be hidden from an ideal conceiver.

I will admit that in defense of WMR4 I may be forced to ratchet up my conception of ideal conceivers and their abilities. In particular, I may need to concede that an ideal conceiver would know all the implications of what they are conceiving. Making this move will not adversely affect my project. In doing so I would strengthen the claim that WMR is true, and thus the claim that ME2 is true. What I would give it up is any hope that we can ideally conceive. Later in the chapter I concede this anyway and so such a move comes cheaply for me (but not necessarily for Chalmers).

The objector might argue that the ideal conceiver could never notice a mere broad logical inconsistency. Instead, they can notice only inconsistencies provided they have a certain particular logic in mind. I think this is false. Rather, it seems that what we are doing in developing a particular logic is attempting to apply our notion of broad logical consistency to a system. Broad logical consistency is prior to any sort of narrower consistency and the fact we can judge narrow logics shows that we
are able to apply this broad notion of consistency to find contradictions. Thus, WMR4 is also true.

There is good reason for accepting all the premises of the above argument, and the argument is valid, and so there is good reason for accepting the conclusion. WMR is true.

To further motivate the claim that WMR is true I will attempt to explain why it appears that some metaphysicians, such as Lewis, deny WMR.

Consider this possible objection to WMR:

WMR seems obviously false. After all, what makes you think that we, extremely fallible creatures, have any access to what really is possible and impossible? Philosophy is not about ideally conceiving of states of affairs and then reasoning on that basis. It is instead the development of more or less complete and consistent positions. After that, we argue for the truth of a position based on its theoretical utility. There are no knock down arguments in philosophy, just good and bad reasons to support a position.

By responding to this objector, I think I can make it clear why WMR is true and why this acceptance is not at odds with the apparent practice of metaphysics.

As I stated before, there is no reason to think that we humans can ideally conceive of all states of affairs. Reflection on the nature of metaphysical debate seems to confirm the opposite conclusion. In a debate about two potential necessary states of affairs, S and ¬S, or “endurantism is true” and “perdurantism is true,” there seems to be widespread acknowledgement from both sides that each position is, in some sense, conceivable. Regardless of whether WMR is true, it appears that there is some deep reason why one of these positions is not possible. This reason would be some hidden (to us) contradiction, if WMR is true, or, if WMR is false, some other reason hidden from an ideal conceiver.
However, just because we cannot, through mere conceiving, tell whether a position is possible, we do not give up on philosophy. The appropriate response to this fact is to proceed in the manner the objector suggests. Evaluating theories for their relative strengths and weakness seems to be a way to get nearer to the truth. As Lewis suggests, we can determine the value of a theory by weighing what it costs in ontology and in a denial of common sense against the theoretical utility it brings. Conceivability is a defeasible practice that gives a rough and ready guide to what is possible.

A commitment to WMR is not a commitment to do metaphysics in a certain way. It is, at most, a commitment to what our concept of absolute possibility is and a thesis about the nature of ideal conceivers. It seems to me that when we consider ways the world could have been, we believe that any way that is not logically impossible is possible. Furthermore, it seems to me that an ideal conceiver could tell if a state of affairs is inconsistent or not. Since there is an explanation for the apparent rejection of WMR in metaphysical practice, a rejection of WMR is unmotivated. Therefore, the defender of WMR should deny that one of the following states of affairs, “endurantism is true,” or “perdurantism is true,” is ideally conceivable.

Given the above argument, I think the proponents of WMR have a case for denying that both “endurantism is true” and its negation are IPP conceivable. However, I believe such a move does not help Chalmers. Ultimately, Chalmers wants to employ WMR in his defense of the possibility of “zombie worlds.” A zombie world is a world that is physically identical to our world but lacks phenomenal
properties. I believe that Chalmers faces a dilemma. If he rejects WMR, then the move from the conceivability of zombie worlds to their possibility is threatened. If he accepts WMR, then he must also deny that one of the pair of states of affairs such as “endurantism is true” or its negation “perdurantism is true” merely have prima facie positive primary conceivability and not IPP conceivability.

Such a move spells trouble for Chalmers. For each contradictory pair of apparent necessary truths, Chalmers must claim that only one is ideally conceivable. But which one? Given the practice of metaphysics, it seems that neither is clearly inconsistent or not IPP conceivable. Instead, it appears that a range of more or less equally coherent and exclusive metaphysical systems are conceivable. It may be that only one is ideally conceivable but we (as non-ideal conceivers) do not have access to the deep incoherence in the rival systems. A defense of WMR requires an acknowledgement that it is very hard to distinguish between ideal and prima facie reasoning. So hard, that many of the deep necessary truths remain hidden from us. Given the tensions in metaphysical practice, it seems to me that an opponent of Chalmers, seizing on this fact, can successfully appeal to the widespread misconceiving of situations to argue that zombie worlds are also merely prima facie conceivable, despite their apparent conceivability.

The objector to the conceivability of zombie worlds would be in a stronger position if he could articulate why it is that zombie worlds seem to be IPP conceivable to so many. There is a plausible reason why such worlds are inconceivable. Thomas Nagel, someone sympathetic to anti-materialist arguments, writes:
Where the imagination of physical features is perceptual and the imagination of mental features is sympathetic, it appears to us that we can imagine any experience occurring without its associated brain state, and vice versa. The relation between them will appear contingent even if it is necessary, because of the disparate types of imagination.\textsuperscript{117}

What Nagel is suggesting is that we lack the ability to use the same type of conceptual apparatus to understand both the mental and physical features of the mind. Because of this lack of ability, if materialism were true, then we still would not be able to see just how it is that the mental reduces to the physical. Given the widespread prima facie conceivability of states of affairs that seem to be but are not ideally conceivable, and given an explanation of why we might think zombie worlds are conceivable, then there seems to be no reason to suppose that zombie worlds are ideally conceivable. Chalmers’s attack on materialism would be much stronger if he focused on finding the incoherence in the materialist position instead of arguing that zombie worlds are really possible worlds.

In conclusion, I have argued that there are more candidates for strong necessities than Chalmers realizes. Many pairs of metaphysical states of affairs are seemingly both IPP conceivable and lead to the rejection of WMR. A rejection of the ideal conceivability of one member of these pairs is plausible but leads to the conclusion that many deep a priori truths are beyond our reasoning. This conclusion casts doubt on the ideal conceivability of zombie worlds. Chalmers fails to recognize this price in accepting WMR because he fails to acknowledge that WMR entails that there are many cases of prima facie positive primary conceivability. He writes,

“Clear cases of prima facie positive conceivability without ideal positive conceivability are surprisingly hard to come by.” I think the opposite is true. In metaphysics, such cases are plentiful.

In this section I went to great lengths to defend WMR. First, I defined WMR in such a way that many common objections to a “conceivability entails possibility” thesis were defanged. Second, I looked in detail at the best case I could give for the existence of a strong necessity. That strategy failed and I went on to give an argument for the conclusion that WMR is true. Thus, we have a plausible thesis that connects conceivability to possibility. Given that we know many simple interesting everyday modal facts, we need some way to account for how we know them. I argued before that if a “conceivability entails possibility” thesis could be shown to be true, then it should be preferred as an explanation of how we know these facts. WMR is true and can resist many different types of objections. Thus, ME2 is true: If we know many simple everyday interesting modal propositions, then WMR is the basis for those beliefs.

3.2.3. ME3

In this section I am going to conclude the argument for MK2 by defending ME3. I’ll do this by first presenting a quick argument for ME3. I’ll follow this with a defense of the premises of the argument.

The argument for ME3 is as follows:

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(ME31) Assume WMR is the basis for many simple interesting everyday modal propositions.

(ME32) If ME31, then we canIPPconceive of many various states of affairs that correspond to the many simple interesting everyday modal propositions that we know.

(ME33) If we IPPconceive of a state of affairs, then we can either completely conceive of a possible world or we can deduce from a less than maximal state of affairs many of its implications.

(ME34) We cannot deduce from a less than maximal state of affairs many of its implications.

Thus, (ME3) If WMR justifies many simple everyday interesting modal beliefs, then we must be able to completely conceive of many various possible worlds. (Note that I mentioned earlier that the abilities of an ideal conceiver could be considered to be even stronger than I grant here. If that is the case then the above argument could be changed by replacing “many of its implications” to “all of its implications.” In this case, the modified ME34 would be even more intuitive.)

The argument is valid and ME31 is an assumption. I will begin defending the argument by defending premise ME32. Consider the simple interesting everyday modal fact, *The couches in my living room could be arranged differently*. If we are to base our belief in this fact through WMR then we must be able to IPPconceive of some state of affairs where the couches in my living room are arranged differently. No other type of state of affairs will do. (There maybe, however, many different states of affairs of the same type that do base our belief in this fact. For example, I might conceive of a situation in which the couches are stacked on top of one another, or I might conceive of a state of affairs in which the couches are both perpendicular to...
the way they actually are.) Further, we must IPP conceive of this situation. Anything less will not allow us to move from the conceivability of the situation to the possibility of the situation.

I now turn to the question of what IPP conceiving entails. Earlier in the chapter I referred to it as the perfect practice of conceiving. I exploited this perfection in my attempt to argue that WMR is true (See my defense of WMR4). Someone who is IPP conceiving of a state of affairs will know if it is coherent or not because she will know if the state of affairs is embedded, so to speak, in a possible world. Suppose she is conceiving of a maximal state of affairs. If that is the case, then she is a perfect conceiver and so will recognize that for any proposition she can think of, it is either included or excluded in the world. Thus, one way to IPP conceive of a state of affairs is to completely conceive of a possible world. Suppose the ideal conceiver is not conceiving of a maximal state of affairs. Then she will be able to clearly see many of the implications of the state of affairs. After all, she is a perfect conceiver. While such a description of her abilities doesn’t entail that she can run a four minute mile, it does suggest that with regards to imagining situations she is the gold standard. Thus, another way to IPP conceive of a state of affairs is to deduce many of the implications from a state of affairs. Since a conceiver has to conceive of either a maximal or less than maximal state of affairs, a conceiver who is IPP conceiving a state of affairs must either completely conceive of a possible world or be able to deduce many of the implications from a less than maximal state of affairs. ME33 is true.
ME34 is the obvious claim that we cannot deduce from a less than maximal state of affairs many of its implications. If we could, then we would be able to fill in states of affairs with much more detail than we typically do. We would not be surprised when we someone points out an implication of our view. ME34 is true. This completes my defense of the argument for ME3. I find it to be a hard premise to deny as all the premises in support of it are hard to deny. Finally, I have also completed by defense of MK2. Both ME2 and ME3 are plausible premises. MK2 is motivated insofar as you agree that ME2 and ME3 are motivated.

3.3. MK3

I will now briefly look at the third proposition of TPK. As mentioned in my defense of ME3, to completely conceive of a possible world is to, among other things, know that for any proposition, it is true or false at that world. Consider any human knower. There is some necessary proposition that the knower does not know, call it NP. For any world the knower tries to conceive of, he will fail to completely conceive of that world because he will not know whether or not NP is true at that world. This argument might give the impression that we fall just short of completely conceiving of a world because we fail to know some necessary truths. That impression would be mistaken. Not only do we fail to conceive of all the necessary truths in a world, we come no where close to conceiving all the contingent facts of a world. Consider this passage:

A philosopher will confidently say that a (naturally) purple cow is possible, but he or she will not in fact have devoted any thought to the question whether there is a chemically possible purple pigment such that the coding for the
structures that would be responsible for it production and its proper placement in a cow’s coat could be coherently inserted into any DNA that was really cow DNA—or even “cow-like-things-but-for-color” DNA…But if a philosopher has not attempted to do something like this, then that philosopher has not, in any useful sense, attempted to imagine a possible world in which there are naturally purple cows.\textsuperscript{119}

Van Inwagen is not talking of IPP conceivability here but his point applies. We cannot in any sense completely imagine a possible world in which purple cows exists. The task is simply too hard. MK3 is true.

3.4. The Importance of TPMK

At this point, the reader may be skeptical that the TPMK really is an important problem. Both MK1 and MK3 are difficult to deny. MK2, by comparison, is much less obvious. The natural thing to do then is deny MK2. Doesn’t that solve our problem?

First, let us look at the argument I gave for MK2. If we are to deny MK2, then we must deny one of these premises in this argument. ME3 is just as compelling as MK1 and MK2, and so if we are to deny MK2, then we must deny premise ME2. Such a denial does not come without cost, even if that cost is low in comparison to the other options.

There are, broadly speaking, two ways to deny ME2. First, one can deny that WMR is true. This is not a good option. For, if one denies that WMR is true, then one must deny one of the premises in the argument for WMR. But which one? Both WMR3 and WMR4 are supported by their own arguments and, I think, are plausible

\textsuperscript{119} Van Inwagen, 1998, p. 255.
on their own. Denying one of them may be better than denying MK1, MK3 or ME3, but not by much. If one chooses this route, then one pays a significant cost.

The second way to deny ME2 is to admit that WMR is true, but deny that it plays a role in basing our everyday modal beliefs. This is the preferable way to deny ME2 and thus the preferable way to solve the problem. However, that is not to say that this solution is without cost. As I mentioned before, an abandonment of the idea that conceivability or imagination somehow grounds our modal beliefs leaves us in an unenviable position. We are stuck knowing that we do know some interesting everyday modal truths but not having the slightest idea about how we know. Further, in choosing mystery, we have to reject a fairly commonsensical approach to modal knowledge. Could it really be that so many are confused when they point to the conceivability of a state of affairs as support for its possibility?

Denying MK2 is costly and thus the problem remains important; even if a general strategy for solving the problem can be agreed upon. (In this case, the general strategy is that of denying that the truth of WMR plays a role in basing our modal beliefs.) Within this broad strategy there are multiple ways of moving forward. I have suggested that the most plausible way presented so far is that of claiming that we do not know how our modal beliefs are justified. I suppose we could learn to live with the consequences of this solution if we had to. Thankfully, we do not have to. UMS can play an important role in offering a better solution to TPMK than the mystery solution. I will devote the remainder of the chapter to demonstrating this.
3.5. Denial of MK2

I am going to finish the chapter by showing how UMS solves the problem of TPMK. As we noticed before, it is MK2 that must be denied. First, I will show how a proponent of UMS might deny MK2. Second, I will consider the cost of denying MK2 in this way. We will see that the cost of the solution I propose in this section will be much less than the cost of holding that it is mysterious how we know simple everyday interesting modal truths.

MK2 must be denied and so one of the premises for the argument for MK2 must be denied. ME3 is much more intuitive and plausible than ME2 and so I deny ME2. I believe WMR is true and so I will I agree with the mysterian and conclude that WMR must not serve as the basis for our modal beliefs. However, I believe that the practice of conceiving does base our modal beliefs. I will first consider some strategies one might use to maintain the conceivability-possibility link. I will then apply UMS and show how the link might be maintained without affirming MK2.

3.5.1. Saving the Conceivability-Possibility Link

The problem with WMR is that, while true, it is inapplicable to our situation. As van Inwagen points out, we come nowhere close to imagining an entire possible world in all its detail and so we fall far short of ideally conceiving of any state of affairs. Further, reflection on common practice in metaphysics demonstrates that we have reason to be skeptical of claims of ideal conception.

One strategy to try to save the conceivability-possibility link would be to weaken WMR into something more in tune with our abilities as a conceiver. Consider the following claim:
(WMR*) Less than ideal Primary Positive conceivability entails primary possibility.

WMR* is obviously false. If a conceiver fails to ideally conceive of a state of affairs then it may turn out that she fails to notice some sort of contradiction in the state of affairs. Thus, less than ideal conceivability will not entail possibility.

Despite being false, WMR* does have the advantage of being a claim that could be applicable to us. Let us weaken WMR* and see if we can come up with a claim that is not obviously false and applies to us as conceivers. How about:

(WMR**) Less than ideal Primary Positive conceivability provides evidence for primary possibility.

WMR** is not obviously false. Further, some philosophers have argued for a very similar claim. Yablo, for example, claims, “Whatever you find conceivable, you are prima-facie entitled to regard as metaphysically possible.”120 Unfortunately, van Inwagen’s concerns about WMR apply equally well here.

Suppose Anslem imagines a possible world. As we noticed before, Anslem cannot imagine all the details of this world; he’s just not that good of conceiver. However, he still can imagine that world. He has to do it by skimping on the details and providing himself a sort of maximality sensation which represents to him that what he is imaging is in fact all there is. Suppose Anslem is imagining a possible world in which purple cows exists. Does this provide evidence for the possibility of purple cows? I do not think it should. Anslem’s powers in this case are too weak. Nothing he imagines hooks up with what we take to be genuine evidence for the

120 Yablo, 1993, p. 34.
possibility of purple cows. For example, as van Inwagen points out in the quote above, Anslem has not considered what sort of DNA and pigment these cows in his world have. Anslem, if he is anything like us, is imagining a cow that is colored purple and providing for himself the impression that the color is the cow’s natural color. Not only are our powers of conceiving less than ideal, they fall short of the ability to conceive of many of the useful facts we would need to determine if a maximal situation really is consistent.

Suppose Anslem, now wary of imagining possible worlds, imagines a less than maximal state of affairs. Here we face a similar problem. Granted, Anslem might be fully conceiving of the state of affairs in all its detail. If Anslem is doing this, then we are not faced with the question of whether or not Anslem is being sloppy and covering up inconsistencies. Rather, we are faced with the question of whether or not this state of affairs is included in some possible world. But how could Anslem’s imagination, no matter how complete, help us with this question? The state of affairs Anslem is completely imagining is likely to be particularly shallow in content due to the limitations of Anslem’s abilities. All the facts we would need to show that this state of affairs is included in a possible world will be untouched by Anslem’s thoughts.

Thus, WMR** either fails to be applicable to us or fails to be true. If we were better at conceiving, then a less than ideal conception of a state of affairs may in fact be evidence for its possibility. But because of our limitations, any conception we have will be as thin and shallow as to leave a large gap between the state of affairs and the possible world it is supposedly included in.
3.5.2. Applying UMS

Up until now I have treated the word “possible” as a proponent of OMS might treat it. Let us examine what happens if we assume UMS is true. One of the central points of UMS is that possibility talk is sensitive to context. In particular, sometimes we might truly talk of state of affairs as being possible even when that state of affairs is implicitly contradictory. Other times, we might insist that a state of affairs is possible only if it is included in a possible world. The proponent of OMS would disagree and insist that it always the case that when we truly talk of a state of affairs as being possible we are using what the UMS proponent considers the maximal use of the word “possible”. So consider WMR* as given to us above by a proponent of OMS. Given UMS, a more precise way of writing it would be:

\[(WMR^*)\] Less than ideal Primary Positive conceivability entails primary possibility_{MAX}.

Possibility_{MAX} is maximal possibility. Thus, WMR* can equivalently be written as:

(WMR*) If a conceiver less than IPP conceives of a state of affairs S, then that state of affairs is included in a possible world, it is possible_{MAX}.

WMR* is still obviously false. However, we now have some more wiggle room. We do not need to restrain ourselves to weakening the conceivability part of the clause or the relation between conceivability and possibility. We can instead weaken the type of possibility we are considering. So, consider this modification to WMR*:

\[(WMR^{**})\] If a conceiver clearly PP conceives of a state of affairs S with a depth of D, then that state of affairs is possible_{D}.
First, let me explain what I mean by “clearly conceiving of a state of affairs.” Because of our limitations there is only so much content that we can explicitly imagine when we conceive of a state of affairs. I say “we clearly imagine a state of affairs” when for every proposition that is part of the content of the state of affairs, that proposition is part of the content of our imagination and there is no explicit contradiction in the content of our imagination. If a conceiver conceiving of S fulfils the antecedent of WMR***, she will be PP conceiving of an explicitly consistent state of affairs.

Second, a crucial part of UMS is the claim that states of affairs have a certain depth. Some states of affairs we conceive of might be extremely shallow, others will be possible worlds. If a conceiver like us clearly conceives of a state of affairs, then the depth of that state of affairs will have to be shallow. There is only so much content we can hold in our head at one time.

Third, I should say something about what I mean by “possibleD.” According to UMS, a state of affairs is possible iff it is explicitly consistent and is of the appropriate depth. (The appropriate depth is determined by context.) Consider some conceiver clearly conceiving of a state of affairs. This state of affairs has some depth. Call that depth “D.” There is some context in which the appropriate depth of a state of affairs is D. Thus, let a state of affairs be possibleD iff it is explicitly consistent and it has a depth of D. To know that a state of affairs is possibleD is to know that at least in some contexts it is possible.121

121 If this paragraph offends your metaphysical senses, see section 6 below for clarification.
The picture we get from WMR*** is the following: When we PP conceive of a state of affairs we are conceiving of a state of affairs with a certain depth. If we can completely imagine this state of affairs (that is have in the content of our imagination the entire content of the state of affairs) and there is no explicit contradiction in the state of affairs then we are clearly conceiving of the state of affairs. Consider some state of affairs $S$ that is being clearly PP conceived of. It follows that that state of affairs is possible because all it takes to be possible is for a state of affairs to be explicitly consistent to a certain depth. Thus, in some contexts, conceiving of a state of affairs does entail that the state of affairs is possible. A better, though less interesting way, to put the point is that clearly PP conceiving of a state of affairs guarantees that that state of affairs has a property such that (if UMS is correct) in some context we would describe that state of affairs as being possible.

3.5.3. WMR*** and Basing Our Modal Beliefs

WMR*** is true. Further, if UMS is true, WMR*** may serve as a way for us to both deny MK2 and save the conceivability-possibility link. Does WMR*** base our simple everyday interesting modal beliefs?

Unlike WMR, WMR*** is applicable to us. We need not worry about WMR*** being true but failing to be of interest because no conceiver can fulfill the antecedent of the conditional. For, consider someone in the process of imagining. There is some content to their imagination. Further, it is not a stretch to think that the content is not explicitly contradictory. Therefore, there are some states of affairs that we can clearly conceive of. WMR*** does apply to us.
However, one might worry that the state of affairs that we can clearly conceive of are too shallow to be of interest to us. It is obvious that WMR*** is of no use when it comes to basing modal claims in the metaphysics classroom. There, the modal beliefs are likely such that they claim that a certain state of affairs is possible\(_D\) where the depth of the state of affairs is maximal. We cannot clearly conceive of such states of affairs. The worry is even in everyday cases our modal beliefs are impossible to base by WMR***. This would be the case if our everyday modal beliefs are of the form “possibly\(_D\) P” where the depth specified by D is such that we cannot have any hope of clearly conceiving of P.

If UMS is false, then this worry is successful in showing that WMR*** does not base our everyday beliefs. If UMS is false, then our everyday modal beliefs have the same depth as our metaphysical beliefs and we have already seen that WMR*** cannot serve as a basis for our metaphysical modal beliefs because we cannot clearly conceive of an entire possible world. On the other hand, if UMS is true, then the prospects are much brighter. Consider how someone might go about defending the claim that it is possible for pigs to fly. He would simply ask one to imagine some sort of pigs with wings flying. It would never occur to him to go further and explain how it is that the pigs got wings and how it is that the wings help the pigs fly. Everyday modal beliefs are remarkably superficial, as is the justification given for them. One might not consider the possibility of flying pigs an everyday possibility. Fair enough. Let us consider an everyday modal belief had by someone who thinks *My boss can meet with me for lunch tomorrow*. This belief is likely to arise out of the flimsiest of evidence. For example, the belief could be based merely on the fact that looking at
the schedule of his boss, the believer sees that she is open between 10:30am and 2pm. It seems enough for the believer to merely consider a state of affairs where the boss meets with him and is such that she has no conflicting appointments.

At this point some might want to protest. The objector would point to this lack of evidence and claim that the believer is not entitled to her beliefs about what the boss can do tomorrow. Further, given considerations like those presented by van Inwagen above, it seems obvious that there is no way her imagination can provide that further justification. So we should not think the conceivability-possibility link does any work here.

I think the objector is still thinking in terms of OMS. If OMS is true, then for it to be the case that the boss can meet with the employee for lunch, there would have to be a possible world in which such a meeting takes place. UMS rejects this contention. For this state of affairs to have one of the many properties we would label “possible,” is for the state of affairs to merely be explicitly consistent and be of the appropriate depth. The meagerness of our evidence for everyday modal beliefs suggests, given UMS, that the depth of imagination required to base these beliefs is meager as well. WMR*** does serve as a basis for our simple everyday interesting modal beliefs.

This finishes my presentation of the proposed solution to TPMK. It has two main advantages over its rival, the appeal to mystery. First, it gets all the benefits of being a positive account. If it is true, then we gain true beliefs (and hopefully knowledge) by believing it. Settling for the conclusion that we just do not know how our modal beliefs are formed carries no such benefits. Second, applying UMS and
WMR*** allows us to save the conceivability-possibility link that is endorsed both by common sense and many philosophers.

3.6. Objections to UMS and WMR***

In this section I am going to address three potential objections to applying UMS as a solution to TPMK. The first of these objections is a worry that I have too quickly moved from the linguistic to the metaphysical. The second objection will build on the first and claim that I have missed the point of TPMK. The third objection is that I have multiplied concepts and violated some sort of simplicity consideration.

3.6.1. Isn’t This Just Philosophy of Language?

Though I have attempted to assuage fears in the last two chapters that my project is more than philosophy of language, worries may remain. In particular, one might have the following worry:

In this chapter you have played fast and loose with “possibility.” It is one thing to claim people mean different things when they use the word “possible.” It is quite another to say that possibility itself is context sensitive or that whether or not a state of affairs is possible is context dependent. I know what I mean by “possible” and it certainly is not context sensitive. You should stick to doing philosophy of language and let the metaphysicians take care of their affairs.

The objector is willing to concede that when we use the word “possible” in a sentence the proposition we express is sensitive to context. The two specific worries he has are a) that such a fact is irrelevant to metaphysics and b) that I deduce from this fact that
the property is *possible* has many strange properties. I’ll address these worries in order.

First, there is a deep connection between philosophy of language and metaphysics. In TPMK the crucial move is to think of states of affairs as not just being possible (or equivalently possible_{\text{MAX}}) but as potentially possible_{\text{D}} (where the D can be filled in any way one wants.) How does UMS justify this move? How do we move from language to metaphysics? I take it as a Moorean fact that we truly and justifiably believe that certain states of affairs are “possible.” I put the “possible” in quotation marks to signify that I think the content of this sentence is up for grabs. No one doubts we *describe* this Moorean fact in the above way. What I think we disagree about is what fact we are picking out by our description. This is one reason why philosophy of language matters to metaphysics. If “possible” has many meanings then what the uncontroversial facts are is controversial. No one doubts it is “possible” for me to raise my right hand. What I doubt is that that uncontroversial fact is equivalent to *it is possible_{\text{MAX}} for me to raise my right hand*. No one doubts that we believe some states of affairs are “possible.” What I doubt is that that uncontroversial fact is equivalent to *we believe some states of affairs are possible_{\text{MAX}}*.

Second, in the chapter I have sometimes spoken as if I thought there is one property “being possible” and that states of affairs gain or lose this property based on a speaker’s/believer’s context. I am guilty of speaking liking that, as it simplifies things at times. However, I am not guilty of believing that anything gains or loses properties based on someone’s context. Before UMS we had one property, *is possible*, and states of affairs either had it or they did not. Now, we have many
properties; \textit{is possible}_{D1}, \textit{is possible}_{D2}, \textit{is possible}_{D...}, and \textit{is possible}_{MAX}. States of affairs either have or do not have these properties because states of affairs either have or do not have the property of having a certain depth and being explicitly consistent. What the proposed solution claims is that we do not just believe that states of affairs are possible_{MAX}. In fact, most everyday modal beliefs are beliefs that a state of affairs is possible_{D}. I cannot fill in D precisely because of complexity and space considerations but I do support the claim above that D is considerably shallow when we consider everyday beliefs.

3.6.2. Is One Type of Possibility the Most Important?

As a rejoinder to my first response, the objector could press the point that I acknowledge that there is some property that I believe in that is the same property the objector thinks we always pick out when we describe a state of affairs as possible. The objector would claim that my focusing on all these other properties is missing the point. Philosophy of language may reveal to us that people use the word “possible” in a variety of ways, but who cares? Philosophers are interested in possibility_{MAX} and have made that clear. Thus, even if there really are all these other properties, contextualism about possibility is irrelevant.

There are three things I want to say in response. First, it may be true that sometimes philosophers are only interested in possibility_{MAX}. In those cases it would be inappropriate to bring in UMS as part of a solution. For example, consider two philosophers discussing whether or not necessity is such that it entails actuality. In this case the context may be clear that the philosophers are discussing necessity_{MAX}.
However, TPMK is not such a case. This problem has to do with everyday modal beliefs. Thus, resorting to UMS is entirely appropriate.

Second, while you can specify what property you want to talk about, it comes with a cost. Typically, philosophers want to talk about something that hooks up to the wider philosophical world. Typically, philosophers want to discuss concepts that are part of our everyday life. That is what makes philosophy relevant. If it turns out UMS is correct, then most modal talk in everyday life and even in other areas of philosophy is not talk involving possibility_{MAX}. Insofar as a modal theorizer wants to stay relevant, he pays a cost for too rigidly specifying what modal properties he wants to discuss.

Third, one might change this objection and argue that not just philosophers, but everyone is interested in possibility_{MAX}. After all, who cares if you can “possibly” choose to raise your hand if there is no world in which you raise your hand? I cannot address every use of the word “possible” here but I can say something that might help shed light on why I think UMS is still applicable. What follows is not an argument but a description of what I think the importance of modal talk is. Often times, modal talk is just an easy way to describe the world. For example, in the workmen case in Chapter 2, I think that when the mover is saying “It is possible for the sofa to move through the door,” what he is trying to convey information about the door and the sofa quickly and efficiently. Context plus the use of the word “possible” makes that possible. The reason I do not think economist, for example, would be bothered by the claim that some scenarios they propose are really impossible, is because that is not the point of the scenarios they bring up. Rather, they mention the
possibility of a long term drop in the value of gold and a simultaneous weak dollar to say something about the structure of the economy. Similarly, I believe historians talk of possibility to quickly describe a past state of affairs. Finally, and I acknowledge this is controversial, I think talk of freedom and ability to do otherwise is also just a rough and ready way to talk of the state of a person and their history. Not only does UMS solve problems, but it can add something to our understanding of everyday speech.

3.6.3. Is this Multiplying Concepts Without Necessity?

Finally, I want to deal with the objection that UMS multiplies properties in an undesirable way. In Chapter 2, I gave a gift to the compatibilist and showed her how to avoid Warfield’s incompatibilist conclusion by using UMS. One of the consequences of this gift is that there are multiple concepts of freedom, one for every concept of possibility in UMS. In this chapter, I wrote that states of affairs are not simply possible; rather they have a multitude of properties that are similar and which we refer to by using the one word “possible.” The objection is simple. It is that such a multiplication of properties is theoretically ugly and thus counts against an adoption of UMS.

In response, I grant that any theory that introduces many properties/concepts where there was only one pays a price. But I do not take UMS to be bringing anything new to the table. Instead, UMS merely points out concepts and properties that we all already believe in. Consider the various types of possibility in UMS. No one should disagree that states of affairs either do or do not have the property of being explicitly consistent and being of a certain depth. UMS and OMS disagree on what
the word “possible” means and whether these properties that everyone agrees exist are useful to determining whether or not a state of affairs is possible.

Also, it is the case that if we were convinced that we used the word “possible” and words like it in an invariant way, then we should see UMS as a needless complication. But we do not think we use modal terms invariantly. Granted, I have added a new type of context sensitivity. But I do not think the fact that UMS is a new theory should count all that much against it.

TPMK is an important problem facing philosophers today. It is true that the general strategy for solving TPKM can be agreed upon. Given our options, we should think WMR does not serve as a basis for our everyday modal beliefs. However, we are still left with many specific ways of solving the problem. If OMS is true, then we are stuck with a mystery. We do not know how our everyday modal beliefs are based. Additionally, we have to reject the plausible connection between conceivability and possibility. If UMS is true, then we can use WMR*** to base our everyday modal beliefs. This solution is preferable to the mysterian option. Therefore, UMS solves the important problem of TPKM. Premise 2 is true.
CHAPTER 4:
THE PROBLEM OF METAPHYSICAL FAILURE

In the last chapter, I explored The Problem of Modal Knowledge. I claimed that while it is obvious that we possess a vast amount of modal knowledge, we do not have an adequate explanation of how we come to that knowledge. One suggestion that has appeared from time to time in the history of philosophy has been that it is by conceiving of states of affairs we come to know that they are possible. I raised several objections to this view, but in the end, I accepted a version of it. The version I endorsed required the truth of UMS to remain plausible, and so the Problem of Modal Knowledge provided us one reason for accepting UMS.

In this chapter, I move on from The Problem of Modal Knowledge and consider The Problem of Metaphysical Failure (TPMF). TPMF is the second of three problems that I will look at in the dissertation. The third problem will be The Problem of Counterfactuals, which will be discussed in Chapter 5. This chapter is devoted to TPMF and the defense of premise 3 of the argument for acceptance of UMS. The first part of this chapter will be a more detailed look at what TPMF is. Second, I will explore each of the propositions that compose TPMF; touching first on issues in meta-philosophy, then arguing that we have good reason to suspect there may not be as many possible worlds as we might have assumed. I will end the
chapter by using UMS to solve TPMF. Finally, I should note that, like in the last chapter, I will be motivating the problem by using modal terms as if OMS were true.

4.1. Introducing the Problem

I will begin this section with a story. The story is not meant to be the main argument of the chapter. One could come up with an argument based on the story. In fact, I will do that once I’ve told the story. However, the primary purpose of the story is to help reveal the intuitions behind the main argument of the chapter.

Imagine a Spinozian universe that is as much like ours as possible. That is, imagine a world in which every proposition was necessarily true, and to the greatest extent possible, everything else was the same. George W. Bush is still such that he won a controversial presidential election against Al Gore. It is not the case, though, that Al Gore could have won. Among the inhabitants of this universe are metaphysicians. These metaphysicians like our own, claim that “It is possible for there to be a world in which there would only be two spheres made of chemically pure iron which have a diameter of one mile and which have the same temperature, color, and so on.”\(^{122}\) They think this claim is important. Further, they think this claim is true. Since they think it is a true and important claim they go about the business of metaphysics and use this claim in arguments against various positions.

Let me say more about this universe. If someone in this universe caught on to the fact that it was a Spinozian world, they might ask this question, “Why do we live in a

\(^{122}\)Black, 1952.
Spinozian world? Why is it that apparent possibilities are not really possible after all?\footnote{123} Let us suppose that the following is a good (and true) response to the questioner: “You live in a Spinozian world because the necessary being who created the universe can only create it this one way. Further, while this god does not control directly or create the modal truths, it is the case that if there were any contingencies, then the god would have to create the world differently.” Given all this, what should we make of these metaphysicians and their metaphysics? In particular, what should we make of their claim about the possibility of iron spheres?

It will come as no surprise that I think the claim is still true, despite the fact that they live in the Spinozian world. After all, the philosophy they are producing is just as good as ours is. Most of them use the iron sphere case in appropriate ways (like we do) and by doing that learn that a bundle theory about objects is problematic. But, like in the case of the workmen in chapter 2, I do not want to rest my case on this intuition. If I did do that, then the argument would go something like this:

\begin{itemize}
  \item \textbf{(Spinoza1)} If the claim of the Spinozian metaphysicians would be true in their world, then OMS has to be abandoned for UMS.
  \item \textbf{(Spinoza2)} The claim of the Spinozian metaphysicians would be true in their world.
\end{itemize}

\footnote{123} One might think these questions do not make sense. For, there does seem to be some sort of foolishness involved in asking why there are no round squares or why \(2+2=4\). A reason for thinking this is that one might hold that any question that ask why a necessary state of affairs is actual deserves the answer: “Because it is necessary” and nothing more can be said about the question. There is something to this intuition, but less than meets the eye. No doubt, one cannot except an informative answer to the question “why is this necessary state of affairs actual and not some other state of affairs?” However, not all “why questions” seek an explanation in terms of multiple options. Rather, some ask for merely a causal history of what is actual. In these cases, the state of affairs can be necessary and we can say why it is. For example, it seems to me that there would be a perfectly good explanation in a Spinozian world for why someone was born, say, with a big nose. It would be because his father has a big nose.
(Spinoza 3) OMS has to be abandoned for UMS.

However, this is not a very good argument. Anyone opposed to UMS would just deny Spinoza2. That is why both in the case of the workmen and the metaphysicians I see the stories as illustrative.

I am committed to Spinoza2. If you have the same intuition I do when you read the story of the Spinozians, then you will think that the above argument is sound. However, if one reads the story and has the intuition that the Spinozians are wrong, then one might use that intuition against me. One might argue that, like in the mover case, the proponent of UMS is just being hard-headed and not accepting the obvious fact that there couldn’t be an iron sphere world any more than there could be a round square. Perhaps the reader has felt this way at various points in the dissertation. Perhaps the reader has felt like uttering, “But that’s not possible and any amount of philosophy won’t change that.”

I think that would be a fair use of the intuition but I do not think it is decisive. UMS has the resources to explain why it is that when considering stories about the movers or the Spinozians we are, at best, torn, and at worst hostile to the claim that what they uttered was true. Remember, UMS holds that “possible” operates a lot like words like “flat.” We are inclined to apply a strict standard when using words like this and so it is no surprise that sometimes when considering different scenarios a strict standard is imposed and the intuition generated is that the claim is false. UMS can account for this intuition. In the right context, it is true to say that “If we lived in a Spinozian world, then iron sphere worlds would not be possible.” I think, then, that
UMS is better than OMS in so far as it can accommodate both intuitions with regards to the claims of the Spinozians.

To be fair, I acknowledge that not everyone will see the context sensitivity of the word “possible” nor are our intuitions torn as equally as they are in cases using words like “flat,” and “know.” However, as I said above, UMS can account for this. Of course, it is difficult to keep an accurate tally of intuitions. Maybe there are very few people like me who think Spinoza2 is true, or even think it might be true. If that is the case, then it would be a mark against UMS to accept Spinoza2. That is why I am offering other arguments for UMS. I hope that the force of them is enough to counteract the intuition that UMS is just wrong when it gives an account of what people say.

The Spinozian story is useful for more than teasing out conflicting intuitions about our modal talk. We are in a similar situation as the Spinozians. We make claims about what is possible and then use those claims in a crucial role in our philosophizing. Unfortunately, there are some good reasons to think that if OMS is true, then those claims are in fact false and their use in our philosophizing is illegitimate. We face the following problem:

(MF1) Analytic metaphysics is a success.\textsuperscript{124}

(MF2) If analytic metaphysics is a success, then we know that many bizarre states of affairs suggested in the metaphysics literature are in fact possible.

(MF3) We do not know that many bizarre states of affairs suggested in the metaphysics literature are in fact possible.

\textsuperscript{124} In the beginning of the next section I will say what is for metaphysics to be a success.
In the following three sections I am going to defend each one of these propositions. At the end of the chapter, I employ UMS to clarify MF2 and MF3 and show that given the truth of UMS and any clarification of MF2 and MF3, there is some problematic proposition that it is reasonable to deny. Further, I should note that much of my defense of MF3 will rely on principles endorsed by what one might call a “traditional theist.” I will give a defense of MF3 that the atheist can accept, but I concede that the case for MF3 is much stronger if one grants “traditional theism.”

4.2. MF1

In this section I am going to show that analytic metaphysics (henceforth “metaphysics”) is a success. I am first going to explain what metaphysics is. Second, I will say what metaphysics would be like if it were a success. I will conclude by giving evidence for the conclusion that metaphysics meets the criteria for success.

4.2.1. What Metaphysics Is

I conceive of metaphysics as a research program. Michael Rea has recently written on the concept of a research program. His work is similar to, but not exactly alike, the work of Imre Lakatos. In Rea’s work, a research program is a set of methodological dispositions. A methodological disposition is a disposition to “trust at least some of our cognitive faculties as sources of evidence and to take certain kinds of experiences and arguments to be evidence.” Rea goes on to talk

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about the notions of an individual research program and a shared research program. The primary difference between the two is that the former is maximal while the latter is a fairly distinct set of dispositions that is non-maximal. Metaphysics is a shared research program.

The reader might insist that metaphysics ought to be defined not by its method but by its subject matter. In this case, my claim that metaphysics is a research program would be false. There are a few points I would like to make about this objection. First, metaphysics is different enough from other philosophical areas to be considered a distinct research program. While contemporary ethicists use some of the techniques of metaphysics, other techniques are often brought in to accomplish their work. For example, certain principles of justice are assumed in Michael Walzer’s work *Just and Unjust Wars* and he then proceeds to derive moral claims from these principles. Those who work in the philosophy of science often use tools that are best described as “historical.” Further, some research done in both epistemology and philosophy of mind is reliant on methods borrowed from psychology that do not appear in metaphysics. Finally, merely writing on “being” is not enough to make one an analytic metaphysician. For example, existentialists write on “being” but would not be considered part of the metaphysics research program despite their similarities in subject matter.

Second, there are some fields of philosophy that have a subject matter separate from that of traditional metaphysics but are such that many philosophers would consider them “applied metaphysics.” I have in mind here the areas of Philosophy of Religion, Philosophy of Action and Philosophy of Mind. Presumably,
these fields would not count as metaphysics if they were defined by their subject matter but deserve the moniker “applied metaphysics” because of their methodological similarities to metaphysics proper.

Finally, not much hangs on the use of the word “metaphysics.” What my argument needs for this chapter is that there exists some research program that incorporates the techniques I’ll make use of later and is such that the program is a success. I think contemporary analytic metaphysics is such a program. Perhaps the objector is right and in fact there is a larger research program that metaphysics is a part of. This would not change the argument of the chapter, but rather it would merely require me to change the name of the program I am discussing.

The methodological dispositions that are members of metaphysics are many. It would be a large project, one that I cannot attempt here, to completely characterize metaphysics. Rather, I will point out one important strategy used by metaphysicians. This method is worthy of focus because it is a) interestingly problematic and b) a defining feature of metaphysics. I will call the method we are going to now explore, the method of “proposal and counterexample.” This method is closely related to, or perhaps is, the referent of the expression “to Chisholm.” An argument or strategy will be “Chisholmian” if it follows the approach I set forth.

Metaphysics is full of proposals. Here are a few: *Objects are nothing but a bundle of Platonic universals, Moral responsibility is consistent with determinism, and One, given that one is a human, would survive an operation were a half of one’s brain is removed from the body, the body is destroyed, and the half of brain is placed*
Metaphysicians work their way through these proposals often times by using the method of proposal and counterexample.

The method works as follows: A proposal is considered. This proposal is determined to be such that if it were true, then it would be necessarily true. The proposal is then scrutinized. All manner of states of affairs are suggested, that, if possible, are such that they falsify the proposal. Call these states of affairs suggestions, and the persons suggesting them the “suggerter”. A debate typically ensues. The “proposer” (the advocate of the proposal) does one of four things. She either a) agrees with the suggerter b) adopts a new proposal similar to the first with the hope that the new proposal does not run afoul of the suggestions, c) claims that the suggestions are not really possible, or d) the proposer will proceeds to accept the possibility of the state of affairs. She will then claim that the proposal and the suggestion are not really in conflict as some assumption the suggerter was making is in fact the real culprit. She will then proceed to tell the suggerter that she made the discovery that the assumption is false. The latter is a more specific strategy, the strategy of “outsmarting” one’s opponents. Some mix of these four reactions is likely. After this, the suggerter will often continue to suggest and the proposer will continue to respond in the above ways.

The above is the method of proposal and counterexample and it is the central strategy accepted by metaphysics. If metaphysics were a success, then the above proposal would be a good strategy for gaining knowledge.

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127 See the philosophical lexicon for more about outsmarting. http://www.blackwellpublishing.com/lexicon/
4.2.2. Metaphysics is a Success

For metaphysics to be a success at least three things need to be true. First, metaphysics must be fruitful. Those who adopt it must come to have knowledge. Second, the true beliefs generated must not be generated in a perverse way. It may be that the metaphysicians with true beliefs are merely lucky; they might come to have their beliefs because a strange coincidence has occurred that allows their patently unreliable and epistemically awful strategies to generate true beliefs. If this were the case, we would not think that metaphysics was a success. One need not be an enthusiastic proponent of naturalizing epistemology to see this. Finally, metaphysics must not be too epistemically harmful. A research program does not deserve accolades of success if it does more harm than good. A research project may cause some false beliefs, but one would hope that the false beliefs are outnumbered greatly by the true beliefs generated. Further, a research program may impose “opportunity costs” on an adopter. Perhaps other incompatible research programs can be adopted that would have yielded different knowledge for the adopter, had she adopted them. As long as these programs are not too much more fruitful, or their knowledge not that much more valuable, we can judge the original program benign in this respect. For example, metaphysics would not be a success if, ethics, say, was more fruitful than metaphysics. If a program meets these three criteria, then it is highly likely that it is a success.

Metaphysics meets these three criteria. First, I will address the issue of what sort of knowledge is generated by metaphysics. The beliefs generated by metaphysics are not what some might expect. It is almost always not knowledge of whether or not various proposals common in metaphysics are true. For example,
Perdurantism is true. Source incompatibilism and leeway incompatibilism collapse into one position, and The phenomenon of vagueness is due to our irremediable ignorance with respect to borderline cases are various metaphysical proposals. They are proposals that would be proposed in the proposal and counterexample method. The vast amount of disagreement about the truth of such proposals by highly educated, well informed, right thinking individuals who all practice metaphysics is evidence that, if anyone knows these proposals, it is not due to metaphysics. If someone did know these proposals via metaphysics, then we would have to come up with an explanation of why others practicing the same methods get such different results. I do not think such an explanation is forthcoming. This fact is a common complaint among students of philosophy. Often, undergraduates (and graduate students!) complain that metaphysics is not generating knowledge because it is not generating knowledge with regards to metaphysical proposals.

However, metaphysics does generate knowledge. It is knowledge of propositions like the following: Bundle theory must be significantly modified in light of Black’s iron sphere world, The principle β, as originally given by van Inwagen, is invalid, and The problem of material constitution is composed of five theses that cannot all be true. These propositions are different from the ones in the previous paragraph. The metaphysical proposals in the previous paragraph are extremely strong, broad propositions that, if true, rule out many other interesting options. The type of propositions we know from metaphysics, if they are proposals (like the one involving β above) are comparatively weak and specific propositions. The invalidity of β does not rule out all that many other positions and its truth status does not
intrigue us in the way the truth of incompatibilism intrigues us. Many propositions we learn by using metaphysics are not even proposals. Some are “cost-benefit” propositions. We know, for example, that we give up on the success of the microphysics of the small, if we adopt Merricks’ ontology. We know that co-location is very un-attractive. Other propositions we know in virtue of metaphysics are “procedural” propositions. We know, thanks to metaphysics, that endurantism and eternalism are compatible, unless one thinks that very specific propositions about personal identity are true. We know that the Quienean strategy for attacking nominalism about universals typically ends in a stalemate. This list could go on and on. Metaphysics is indeed fruitful.

I should note a couple of things. First, the above contrast about what sort of propositions metaphysics helps us know and does not help us know is not meant to be definitive. Rather, it is meant to point the reader in the right direction to see what sort of knowledge metaphysics does generate. Second, it likely that the reader disagrees with me about some of the examples in the last couple of pages. While I stand by my examples, I am not going to defend each one here. Rather, I will simply mention that they are suggestive of a much larger group of examples that I can give which the reader and I would very likely see has a large sub-group of examples that we can agree on.

Not only is metaphysics fruitful, the knowledge mentioned above is not generated in a perverse way. Consider the proposition, *The principle β, as originally given by van Inwagen, is invalid.* Metaphysicians come to have this piece of
knowledge as a result of the proposal and counterexample method. The above claim about bundle theory is also due to the proposal and counterexample method. There is no reason to suspect that this knowledge is created in any sort of strange way. It is exactly the sort of knowledge one would expect to arise out of the methods of metaphysics.

Finally, metaphysics does not generate excessively harmful results. No doubt metaphysicians, by practicing their method, come to believe false things. However, the damage done by metaphysics is similar to the damage done by paradigmatically successful research programs, such as physics. Metaphysicians sometimes believe and advocate false theories, just as physicists do. Like scientists, metaphysicians also gain and produce in others a great deal of knowledge. Further, there is no other research program that is ruled out by practicing metaphysics and is such that its gains make it obviously a better choice. Metaphysics is a successful research program. MF1 is well-supported.

4.3.MF2

In this section I will defend MF2. MF2 claims that if we acknowledge that analytic metaphysics is a success, then we are committed to the claim that we know that many bizarre states of affairs suggested in the metaphysics literature are in fact possible. I will begin by assuming that metaphysics is a success, and I will explain what I think that fact entails. I will then show that one consequence of these

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129 Black, 1952.
entailments is that we know that many bizarre states of affairs suggested in the metaphysics literature are in fact possible. This will be done by leaning heavily on observations about how metaphysics works and the crucial use of counterexamples in the current practice of metaphysics.

In the above section I attempted to show that metaphysics is a success. For the purpose of this section, I will assume I was successful. Since metaphysics is a success, we know two things: First, there are some true propositions known by metaphysicians. Second, these propositions are generated by the methods endorsed by metaphysics. One of these methods is the proposal and counterexample method. This method does result in the metaphysician having knowledge; I suggested some cases in the above section. I will now explore a couple of these cases in detail to show that metaphysical knowledge comes only with knowledge that many bizarre arrangements of stuff are in fact possible.

Let us first look at the case involving bundle theory and iron spheres. Here is a proposal:

(Bundle Theory) Objects are nothing more than a bundle of Platonic universals.\textsuperscript{130}

Metaphysicians agree that if Bundle Theory is true, then it is necessarily true. Max Black claimed that it is possible for there to be a world in which there would be only be two spheres made of chemically pure iron which have a diameter of one mile and

\textsuperscript{130} Of course, this isn’t the only theory deserving of the name “Bundle Theory.” Some bundle theorist are in fact trope theorists.
which have the same temperature, color, and so on. This suggested possibility was a successful counterexample to Bundle Theory. The discussion has continued with bundle theory advocates significantly modifying their theory in response to proposed counterexamples.

What have the metaphysicians learned from this discussion? At least the following, Bundle theory must be significantly modified in light of Black’s iron sphere world. If this knowledge is produced by the proposal counterexample method, as it appears it has been, then metaphysicians also know the following:

(SWIP) There is a possible world in which there is only two spheres made of chemically pure iron which have a diameter of one mile and which have the same temperature, color, and so on.

For,

(SWIP1) If metaphysicians know Bundle theory must be significantly modified in light of Black’s iron sphere world based on the use of the proposal counterexample method, then the proposal and counterexample method must have been properly followed in this case.

(SWIP2) If the proposal and counterexample method was properly followed in this case, then metaphysicians know that the proposal was necessary and the suggestion was possible.

(SWIP3) Metaphysicians know Bundle theory must be significantly modified in light of Black’s iron sphere world based on the use of the proposal and counterexample method.

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131 Black, 58.

132 To be fair, it is not clear that Bundle Theory was the target of Black’s article. Rather, he was hunting larger game in the form of the Identity of Indiscernibles.

133 See Zimmerman, 1997 and O’Leary-Hawthorne, 1995 for some of this discussion.
Therefore, SWIP.

The above argument is valid. SWIP1 is a result of the plausible principle that metaphysical knowledge can only come about by methods and strategies that are properly followed. For suppose the method was not properly followed; would we really want to say that the metaphysician gained knowledge by using that method? Suppose I am attempting to measure the length of a table with a ruler. If I misuse a ruler but still get the right measurement, then we are inclined to say that I do not know how long the table is. Metaphysicians, like everyone else, cannot get lucky when it comes to knowledge\textsuperscript{134}. SWIP2 can be seen to be true by reflecting on the proposal and counterexample method. The method as described requires that proposals be necessary and suggestions be possible. Further, for the method to be followed properly, the participants must be aware of these facts. If a metaphysician thinks a suggestion is a successful counterexample, even though he does not know that the counterexample is possible, then he is not following the proper method. SWIP3 is supported by the record of the debate cited above and the assumption that metaphysics is indeed successful. Thus, if metaphysics is successful, then metaphysicians know at least one bizarre arrangement of stuff is possible.\textsuperscript{135} (Note, even if the reader has some reason or another to reject the claim that we know the sphere world is possible, most metaphysicians will be committed to thinking there is some example like this one that is both bizarre and possible.)

\textsuperscript{134} Or, they cannot get lucky in a certain type of way.

\textsuperscript{135} Of course, this requires that the sphere world is a bizarre arrangement of stuff. I take it to be a paradigm case of a bizarre arrangement and will not argue for that claim in this chapter.
There are many other cases in the metaphysics literature that fit the pattern of the above case. I will gesture at one more classic example here. David Parfit, in his article “Personal Identity,” takes the following to be possible: “Two people come together. While they are unconscious, their two bodies grow into one. One person then wakes up.”\textsuperscript{136} Though I will not go through the rigors of proving this point; I will point out that in response to a proposal about personal identity, Parfit has suggested that a bizarre state of affairs is possible. A look at the last three decades of personal identity literature will show that, like in the case of bundle theory, metaphysicians have gained knowledge and that this entails they know that a variety of bizarre states of affairs are possible.

Given the success of metaphysics, we can see that many bizarre states of affairs are known to be possible by metaphysicians. This is because crucial to the practice of metaphysics is the proper use of counterexamples, and an essential part of using counterexamples properly is the knowledge by the user that bizarre states of affairs are possible. Do we know that many bizarre states of affairs are possible, as MF2 requires? I know that they are, because I am a competent practitioner of metaphysics. I assume the reader is too. If you are not, feel free to modify MF2 and MF3 accordingly by substituting “competent practitioners of metaphysics” for “we”. In any case, MF2 appears to be true. Later in the chapter, I will return to the argument I gave in this section and show how one might resist its conclusion.

\textsuperscript{136} Parfit, 1971.
4.4. MF3

In the last two sections I have argued for the conclusions that metaphysics is a success and that this success entails that we know that many bizarre states of affairs are in fact possible. I will now attempt to give the case for MF3. As I mentioned before, the argument for MF3 is strongest from the perspective of traditional theism. I will first give the argument for MF3 from the theistic perspective, and then move on to giving an argument for MF3 from the non-theist perspective.

I should clarify my use of the word “theism” in section 4. On the one hand, I want to use the word “theism” because it adequately communicates my belief that the argument I am going to give below applies to most, if not all, theistic belief systems. For example, if one were a Muslim, then the argument I give below can be modified to account for the tenets of Islam and the conclusion would be the same. However, I am going to draw, at times, on what can best be described as the claims of traditional Christianity. There are relevant analogous of the claims I make in the other major theistic religions. However, I point out this tension so that the reader does not think that this argument will be thin on its references to any particular faith.

4.4.1. Theism and MF3

In this section I will examine three possible answers to the question, “What sort of arrangements of physical stuff can there be?” By answering this question we can begin to determine what sort of possible states of affairs there are and what sort of possible worlds there are. I am going to give an argument for the conclusion that theists should not think Black’s sphere world is possible. Further, the motivations for endorsing this conclusion will be such that they can be extended to other suggested
possible worlds that have in them a bizarre arrangement of stuff, and are such that they have been used in successful metaphysical endeavors. This will place the theist in a dilemma, as she will have to accept MF3, and thus either deny MF1 or MF2.

I will argue that atheists and theists should give different sorts of answers to the above question, and thus will have different ideas about what sort of possible worlds there are. First, I will present the atheists’ answer to the question and give some of the reasons why atheists endorse this answer. Second, I will argue that insights gleaned from the problem of evil should lead theists to a more restricted answer than the atheists’ answer. Finally, I will argue that the theists should not accept this second answer and should instead endorse a much more restrictive answer. This final argument will contain premises that are motivated by reflection on the nature of God and his creative acts.

Let me clarify a couple of phrases that I will be using. At times I will talk of an “arrangement of stuff” or use the phrase “For any arrangement of physical stuff.” On the face of it, the latter is a simple quantification over all arrangements of stuff. But what is an arrangement of stuff? Suppose that an arrangement of stuff is any hunk of stuff in this world that would be an object if mereological universalism were true (which it is, by the way). Going down this route is unsatisfactory. If we limit arrangements to actual arrangements then we will be unable to speak of all the arrangement that might or might not be. We could talk of merely possible arrangements of stuff, but that would commit us to possibilism, something we all should avoid. The better route is to insist that talking of arrangements of stuff is really talk of various universals. These universals are all the “arrangement
universals”; they are the universals that are instantiated iff certain shaped hunks of stuff are actual. Thus, the quantification above is not quantification over actual hunks of stuff but is quantification over arrangement universals. Further, all the answers that I provide will speak of a possible world “including” a certain arrangement. A world $w$ includes an arrangement $x$ of physical stuff iff if $w$ were actual, then $x$ would actually be instantiated.

I will now answer our question from the atheist perspective. I will first offer an answer and clarify it. I will then show that this answer is given by many philosophers who work in modality and are also atheists. Finally, I will show that this answer, while not entailed by atheism, is congenial to it. This friendliness between atheism and the answer provided in this section goes a long way to explaining why so many atheists endorse the answer.

The atheists’ answer to the above question is as follows:

$(AR)$ For any arrangement of physical stuff there is at least one possible world that includes that arrangement and that arrangement only.

This is the least restrictive answer possible. Given an arrangement of stuff, there is some world that contains that arrangement. Take a unicorn’s body and a hippogriff's head, splice them together, and you have an arrangement of stuff that is possible. Consider only the 12th floor of the Empire State Building. Now, replace each of the chairs in that floor with a large block of Jell-O. There is some world (and a not to distance one and that) that includes this arrangement of stuff.

Among the interesting worlds that would be possible if AR were true is one as follows: A world such that there is an arrangement of stuff such that if this
arrangement of stuff were actually instantiated, then there would only be a large
skillet containing hundreds of conscious humans cooking over a large fire. Call this
world EW (for Evil World).\textsuperscript{137}

Many atheist philosophers accept AR. For example, David Lewis writes:

To express the plentitude of possible worlds, I require a principle of
recombination according to which patching together parts of different possible
worlds yields another possible world. Roughly speaking, the principle is that
anything can coexist with anything else, at least provided they occupy distinct
spatiotemporal positions. Likewise, anything can fail to coexist with anything
else. Thus if there could be a dragon, and there could be a unicorn, but there
couldn’t be a dragon and a unicorn side by side, that would be an
unacceptable gap in logical space, a failure of plentitude.\textsuperscript{138}

Similarly, we find in D.M. Armstrong:

The simple individuals, properties and relations may be combined in all ways
to yield possible atomic states of affairs…Such possible atomic states of
affairs may then be combined in all ways to yields possible molecular states of
affairs. If such a possible molecular state of affairs is thought of as a totality
of being, then it is a possible world.\textsuperscript{139}

And, finally, in Mark Heller’s writing:

For any number of dimensions, any number of properties, and any
combination of the two, there is a world that represents that combination. In
short, any set with the modified Quinean structure is a possible world.\textsuperscript{140}

\textsuperscript{137} A world like this has been described before in Gale, 1996.

\textsuperscript{138} Lewis, 1986a.

\textsuperscript{139} Armstrong, 1986.

\textsuperscript{140} Heller, 1998.
This is just a representative sample of atheists who study modality, but I take it to be an accurate portrayal of atheist thought in the literature.

Why do many atheists endorse AR? To start with, consider something that is both a non-physical object and is such that it if it existed, then its existence influences what sort of arrangements of stuff are possible. Call that sort of thing an “interferer.” Some possible examples of interferers are a deity who has necessary existence and certain tastes about the arrangement of physical stuff, and a brute necessary law of nature that restricts what sort of arrangements are possible. Now consider the following argument:

(MF31) AR is false only if at least one interferer exists.

(MF32) No interferer exists.

(MF33) Therefore, AR is true.

The atheists above do not explicitly endorse MF31-33 (or any other argument for MF33) but I think it something like this argument that leads them to adopt MF33. We can see this we when we consider the reasons one might believe MF31 and MF32.

I do not have an argument for MF31, but I believe that it is true and I think that many atheists would endorse it. I suspect that what motivates MF31 is some sort of commitment to the Humean view that any bit of physical stuff is logically independent from any other bit of physical stuff. Atheism may encourage one to adopt MF31 but the connections are, at best, weak. However, MF32 naturally falls out of atheism. For, they are few, if any atheist that would deny that naturalism is
true. If naturalism is true, then one need not worry about the existence of any deities, ghost, strange abstracta, or whatever, from interfering in the arrangement of physical stuff. Thus, AR is a natural position for atheists to take.

Granted, I have not shown that atheism entails AR nor have I given a particularly compelling case for premises MF31 and MF32. Here, however, my goals are more modest. I merely want to explore what leads so many atheist authors to a commitment to AR. It seems that a bit of Humeanism (which is not short supply in the writing of philosophers such as Lewis) combined with naturalism leads one to AR.

A theist is not going to accept MF32. Theists, by definition, believe that an object exists necessarily which does influence what sort of arrangements of physical stuff could be instantiated. This is not to say that God “changes the laws of modality” or anything like that. Rather, it is to say that if God exists, then fewer arrangements of stuff are possible than if he did not exist.

Of course, a rejection of MF32 does not mean that theism entails the rejection of AR; it merely shows that the road to AR is rockier for the theist. In this section I intend to show that most theists should reject AR. In its place, I consider a more restrictive answer.

Almost all theists believe that God’s existence is necessary. In addition, I know of no theist who thinks that God’s existence is necessary, and that God is such that He can exist in a world where there is gratuitous\textsuperscript{141} evil. Call theism that entails

\textsuperscript{141} Gratuitous evil is evil whose existence is enough to disprove the existence of an omni-benevolent, omniscient, and omnipotent god.
that, both God’s existence is necessary and God cannot exist in a world where there is
gratuitous evil, “traditional theism.” Consider the following argument:

(MF34) If AR is true, then EW is possible.

(MF35) If EW is possible, then traditional theism is false.

(MF36) Therefore, if traditional theism is true, then AR is false.

Suppose AR is true. AR places no restrictions on what sort of arrangement
may be instantiated. Thus, an arrangement of stuff containing a large skillet cooking
several conscious humans could be instantiated and so EW is possible. MF34 is true.
Suppose EW is possible. EW is plausibly a world where there is gratuitous evil.
Thus, if EW is possible, then there exists a world where gratuitous evil occurs. If
there is such a world and God exists, then either God does not have necessary
existence or God can exist in a world with gratuitous evil. As mentioned above,
traditional theists will reject both disjuncts in the consequence. Therefore, if EW is
possible, then traditional theism must be false. MF35 is true. The argument is sound,
traditional theists (henceforth, I will drop the “traditional”) must reject AR.

What sort of answer should the theist give to our question? One criterion for
the answer is that it should entail that EW is not possible; otherwise we can run the
same argument above for the proposed answer and show that theist must reject it. Of
course, EW is not the only trouble making world. Any answer the theist gives will
have to rule out the possibility of there being a possible world where gratuitous evil
exists. If this is the theist’s only restraint on the arrangement of physical stuff then
the following answer could be given:
(Evil Restriction) For any arrangement of physical stuff, there is a least one world that includes that arrangement iff there would be no gratuitous evil included in the world.

Among the interesting worlds that would be possible if ER were true is one as follows: A world such that there is an arrangement of stuff such that if this arrangement of stuff were actually instantiated, then there would only be two spheres made of chemically pure iron which have a diameter of one mile and which have the same temperature, color, and so on. Call this world SW (for Sphere World).

ER is not a satisfactory answer for the theist. That is because there is more than evil that is incompatible with God’s existence. In particular, if you are a theist, you are committed to the claim that all possible worlds meet certain divine purposes. In this section I will present an argument that shows that theists should reject ER. I will conclude by giving an acceptable theistic answer to the question “What sort of arrangements of physical stuff can there be?”

The following is my argument for the incompatibility of ER and theism:

(MF37) If ER is true, then SW is possible.

(MF38) If SW is possible, then theism is false.

(MF39) Therefore, if theism is true, then ER is false.

This argument is valid and I believe it to be sound. Let us start by examining MF37. SW does not seem to contain any gratuitous evil in it due to the iron spheres, the only material objects present. If needed, we can stipulate that in this world there

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142 Black, 1952.
is no sort of spiritual evil occurring. Thus, there is no gratuitous evil in the world. Thus, if ER is true, then SW must be possible.

MF38 is the controversial premise in the argument and I will now attempt to defend it. The intuition behind MF38 is that God does not perform actions without a reason. A God who creates a world like SW seems to be a very different God than the one I take to be worshiped by theists. Further, the claim that there really is some purpose to SW seems to me to be completely bizarre. What sort of divine purpose could there be for SW? 143

The argument, then, for MF38 goes like this:

(MF310) Assume: SW is possible.

(MF311) Assume: Every possible world is such that if it was actual, then God would have created the heavens and the earth.

(MF312) Thus, possibly, God creates the heavens and the earth of SW.
(MF310, MF311)

(MF313) Assume: Necessarily, if God performs an action, then God had some reason to perform that action.

(MF314) Necessarily, if God creates the heavens and the earth of SW, then God has some reason to create the heavens and the earth of SW. (MF313)

(MF315) Assume: Necessarily, God has no reason to create the heavens and the earth of SW.

143 Of course, I am fallible and God could do things that are by my light, bizarre. I will address this point later the chapter when I talk about who bears the burden of proof in this debate.
(MF316) Necessarily, God does not create the heavens and the earth of SW. (MF314, MF315) (Thus contradicting MF312. One of our assumptions must be wrong.)

(MF317) Therefore, If MF310 is true, then either MF311, MF313, or MF315 is false. (MF310-MF316)

(MF318) If either MF311, MF313, or MF315 is false, then theism is false.

(MF319) Therefore, if SW is possible, then theism is false.

The argument looks fairly long, but that is because I included many sub-conclusions and assumptions to bring out the reasoning. In fact, the only premise that is not one of those is premise MF318. If I am right, and MF310-MF316 entail premise MF317, then the only thing left to do to defend premise MF38, is to defend premise MF318. I will turn to that task now.

It is easy to see that if MF311 were false then theism would be false. For, it is an essential part of theism that everything is dependent on God, and without his action nothing would be. If MF311 were false, then it would be possible for something to exist and it be the case that God neither created it, or its creator, or its creator’s creator, etc.

What would follow if MF313 were false? That would entail that it is possible for a) God to perform an action and b) for God not to have a reason for performing that action. If you do not think such actions are possible, then you think MF313 is true, albeit trivially so. If such actions are possible, then certainly we are capable of them. Some actions that we might deem reasonless are: nervous fiddling with our clothing, the rudimentary speech act of saying “umm” an so on, unconscious shifting
in our seats. More interestingly, it seems that we perform complex reasonless actions, such as the counting the number of tiles on a floor again and again, the construction and deconstruction of various shapes out of clay, etc. Further, notice something about all these actions: if they are done too often, or in the case of the complex actions, perhaps at all, we would consider the agent mad. A hallmark of irrationality is the performance of reasonless action. 

We are, to a certain extent, irrational, and that is what explains why we perform reasonless action. God is not irrational or the least bit mad. So if you think reasonless actions are possible and are committed to theism, then you should think MF313 is true.

The question of whether or not theism entails MF315 is trickier. Let me say a couple of things before ultimately giving my reasons for thinking theists cannot deny MF315.

First, I am unsure exactly who bears the burden of proof here. On the one hand, it would be surprising, given MF311 and MF313, if ER is compatible with theism. ER makes no mention of reason, and we would not expect it to be compatible MF311 and MF313 in spite of that. So, we might require worlds to earn their place, manifestly and explicitly demonstrating that God would have a reason to create them. If so, then MF315 should look attractive to the theist, for SW does not obviously

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144 There is a large literature on the subject of what counts as an “act.” Some of the actions I mention here would not be consider by some to be acts. However, it is not necessary to delve into this literature. For, if you cannot come up with an event that would cont as a reasonless action, then MF313 is true. If you can come up with an action, then feel free to substitute in this paragraph for my examples.

145 See Candance Vogler’s Reasonably Vicious where she gives an account of rational action that entails that an actions without an end (that is, an action that is reasonless) is irrational.
serve some divine purpose. On the other hand, well known theists take it for granted that worlds like SW are possible,\textsuperscript{146} and I should offer up some reason to think they are wrong.

Second, we read in Job 11:7, “Can you discover the depths of God? Can you discover the limits of the Almighty?” Theists take this verse and other like it seriously. It may be that we are at loss for what to say about MF315 because we are so ignorant of the divine mind.

Given these two caveats, I think the theist should accept MF315 cautiously. Theists do claim to know something about the purposes of God. They claim that He created us to love us and glorify him, and that the reason He sent his Son is to pay for our sins and to glorify the Father through the Son’s obedience. Further, they might claim that God created the heavenly multitudes in part to worship and serve Him. Perhaps the theist can go farther and can see the creation of beauty as reason for God to create. None of these reasons, however, explain why God would create the heavens and the earth of SW.

It is true that the theists do not claim to have an exhaustive list of the reasons why God might create a certain world. Thus, it is possible that God’s purposes would be served by creating SW. However, I am struck by the difference between the detailed and heavy account theist give for the purposes of God for this world and the purposes that would be at work in the creation of SW. This difference cast doubt on the claim that God would have a purpose to create SW. Theists should accept MF315.

\textsuperscript{146} See Zimmerman, 1997.
ER is incompatible with theism. The theist needs a more restrictive answer to the question. This answer must be such that it rules out worlds such as SW. I propose the following:

**Divine Purpose Restriction, DPR** For any arrangement of physical stuff, there is at least one possible world that includes that arrangement iff there would be not gratuitous evil included in the world and that world fulfills certain divine purposes.

DPR is better than ER because it rules out SW. It also rules many other worlds permitted by ER. It is, however, a less than perfect answer. It would be nice to know more about what sort of worlds fulfill God’s purposes. Given the scope of that project, and in light of what I’ve said about our ignorance of the divine mind, I think we are going to have to settle for less than perfect in this chapter.

Another interesting feature of DPR is that it rules out worlds that play a central role in the literature of analytic metaphysics. For example, consider SW. As we have seen in the beginning of the chapter, SW is one of the many worlds we would know is possible, if metaphysics is a success. This puts the theist in a difficult position. Suppose she rejects the possibility of SW. She would then, if MF2 is true, be forced to deny that metaphysics is a success.

I want to note before I leave this section that the argument above is stronger than it needs to be. I think the above argument is sound. However, I do not need to show that we know MF319 to motivate MF3. Rather, all that I need to do is throw significant doubt on the claim that theists know SW is possible. The considerations above are enough for this claim even if they are not enough to show that SW is impossible given theism.
4.4.2. Atheism and MF3

In the last bit of the chapter I argued that the theist ought to accept MF3. I will now say why I think the atheist should adopt MF3. I am going to make three short points, each of which is applicable to the theist to a certain extent. Given my use of “theism” above, it is true that my discussion does not address every potential reader. However, if you are a deist of some sort, for example, then you will find what I say about atheism applicable to you.

First, it is not clear that both MF31 and MF32 are true. For example, perhaps there is good reason for the atheist to think that the laws of nature are necessary. If so, then there is good reason to think from the atheist perspective that some sort of interferer exists. If that is the case, then the atheist metaphysician will have to restrict themselves to the possible worlds that are compatible with the laws of nature. The sphere world, among others, will be ruled out. I am not going to pursue the question of whether or not the laws of nature are necessary, but the reader is free to think about that and other potential interferers that may restrict the atheist’s use of possible worlds.

Second, the atheist should take seriously the conclusions reached in Chapter 3. There, I argued that the best account of the process that produces modal knowledge is a version of the conceivability to possibility hypothesis. However, if I am right, this process only reliably produces in us modal knowledge of everyday sorts of modal beliefs because of the shallowness of everyday beliefs. It does not allow us to know that bizarre states of affairs used by metaphysicians are in fact embedded in possible worlds. (For, it does not allow us to know that any state of affairs is embedded in a possible world). Further, we looked out the various reasons van Inwagen gave for
endorsing modal skepticism. In particular, we examined his complaint that philosophers, among others, have done very little to flesh out the state of affairs they claim to be possible. For example, no one has figured out what exactly it would take for there be a purple cow, and so van Inwagen was skeptical of the claim “There could be purple cows.” This suggests that MF3 is true because like in the case of purple cows, metaphysicians have not done the serious work that is needed to show that the worlds they invoke are in fact possible.

Finally, the atheist should remember that it is not only bizarre arrangements of stuff that must be possible if metaphysics is a success. Often times, metaphysicians suggest possibilities that not only arrange normal atoms in peculiar ways, but they invoke bizarre causal laws, new types of stuff and generally outrageous possibilities. The following are two examples from the literature which metaphysicians have used in the proposal and counterexample method to generate knowledge.

First, we have the case of trumping preemption. David Lewis has floated various proposals regarding the nature of causation and has supported what could be called counterfactual accounts of causation or CACs.\(^{147}\) In response to these proposals, Jonathan Shaffer wrote:

Imagine that it is a law of magic that the first spell cast on a given day match the enchantment that midnight. Suppose that at noon Merlin casts a spell (the first that day) to turn the prince into a frog, that at 6:00 PM. Morgana casts a spell (the only other that day) to turn the prince into a frog, and that at midnight the prince becomes a frog. Clearly, Merlin’s spell (the first of the day) is a cause of the prince becoming a frog…nothing remains by which

\(^{147}\) See Lewis, 1973b, 1979b, and 1986b.
extant CACs might distinguish Merlin’s spell from Morgana’s in causal status.\textsuperscript{148}

This is a state of affairs that is presumed by metaphysicians to be possible and is used in the proposal and counterexample method to generate knowledge. Further, if it was not possible, then the method fails in this case to generate knowledge. Finally, it is fair to say that a world with laws proposed by Shaffer is a bizarre world and one far away from our everyday experience. Even if there is some sort of rearrangement principle that serves as the basis for our belief in bizarre arrangements of stuff, no such principle could successfully help us generate a justified belief that the above state of affairs is possible.

Second, we have the case of gunk. Gunky states of affairs are states of affairs where there are no simple particles that compose matter, instead there is what Lewis has called, ‘atomless gunk.’ The supposed possibility of gunk has generated much discussion in the literature and has presumably been part of a process that has generated knowledge. However, gunky worlds are bizarre worlds.\textsuperscript{149} They are worlds much different from our own. If the atheist takes seriously the points made in Chapter 3, then the worries expressed here should encourage them to adopt MF3 and step back from full heartedly endorsing the possibilities of these bizarre states of affairs.

\textsuperscript{148} Shaffer, 2000, p. 58.

\textsuperscript{149} See Zimmerman 1996, van Inwagen 1990a, Sider 1993, and Burke 1996.
4.5. Solutions

TMPF is a problem for both the theist and the atheist. There are good reasons to endorse MF1-3. Yet, it cannot be the case that they are all true. Further, TPMF is an important problem. To resolve it, one might have to significantly modify the presumptions of what appears to be highly successful research program. In this final section of the chapter I am going to consider one possible solution, reject it, and end by showing how UMS can solve TPMF.

4.5.1. Solutions That Avoid UMS

A denial of MF1 is exceptionally costly and should be avoided if at all possible. Metaphysics is one of the core research programs of contemporary analytic philosophy and I find implausible the suggestion that it is a failure. However, I admit a bias here. I am, after all, a metaphysician. Thus, perhaps the reader will reject MF1 and not feel as uncomfortable as I do with that option.

One might deny MF3. I think such a denial comes at significant cost given the arguments I presented in the above section (especially if one is a theist). For example, a denial of MF3 entails that we know that some bizarre states of affairs are in fact embedded in possible worlds. But reflection on the methods we use to produce such beliefs should push us into the direction of skepticism about such beliefs. That was one of the lessons of Chapter 3. We can view some of our modal beliefs as having support, via the conceivability-possibility link. These beliefs, however, are nothing more than our everyday modal beliefs and are not anything like the modal beliefs required by successful metaphysics. They are radically different in content, and further, they are radically different with regards their depth.
Metaphysics requires that we know that certain bizarre worlds are possible. That is an extremely difficult requirement to meet given the poor ability to modally imagine.

Finally, one might deny MF2. One could agree with the following speech by a critic of my position: “I disagree with how you have characterized the methods and success of metaphysics. It is not the case that metaphysicians endorse the proposal and counterexample method. Rather, they use a strategy very similar to it. In this strategy they do not consider the suggestions possible. Instead, with each suggested state of affairs, they reason hypothetically. They do not know, for example, that gunk is possible and then learn various truths given that gunk is in fact possible. They know that if gunk were possible, then all these various truths would follow. In the case of the iron spheres, they know that if the iron spheres were possible, then there would be various consequences. A metaphysician can do metaphysics safely without endorsing the possibility of all these radical states of affairs you have pointed to. The success of metaphysics does not require that we know that bizarre states of affairs are in fact possible. I deny MF2 and SWIP3.”

There are two responses that I have to the above critic. First, I think the record of metaphysical discourse undermines his position. The method of proposal and counterexample that I described is endorsed consistently in the literature. Essential to it is the paired claim that proposals are necessary and suggestions are possible. In the literature, if the suggestion is shown to be not possible, then the suggester has failed.150 Very rarely, if ever, does a metaphysician endorse a strategy like the one the critic describes. However, I conceded that they might do this in

150 See both Zimmerman, 1997 and Shaffer, 2000 for evidence of this claim.
private, or when you provoke them with various puzzles. And, perhaps, they will adopt this strategy in light of TPMF.

This leads to my second point. If the critic is right in his description, or his method is adopted as part of a methodological shift, then metaphysicians find themselves committed to another problematic proposition:

(CF) Counterfactuals with impossible antecedents are not trivially true or false.

For, some of the antecedents in the counterfactuals metaphysicians would have to know, if the critic is right, will be impossible. For example, consider the counterfactual *If it were the case that Black’s sphere world was possible, then bundle theory would have to be significantly modified.* The critic, by accepting MF3, would acknowledge that we do not know that the antecedent is possible. Yet, the critic would like to propose these counterfactuals as useful, non-trivial bits of knowledge that are part of the success of metaphysics. Thus, for many bits of metaphysical knowledge, it will turn out that they are based on non-trivial counterfactuals with impossible antecedents.

We can see now how the final three chapters of the dissertation fit together. In Chapter 3 I proposed that we have a problem with our account of modal knowledge. Not only did that problem motivate acceptance of UMS by supporting premise 2 of the argument from utility, but it provided reasons for us to think that our modal knowledge is not as extensive as might have been thought. In this chapter, I have used those reasons along with other intuitions to motivate premise 3 of the argument from utility. I concede that there may be a way to characterize metaphysics
and its success that avoids the problem in this chapter. (Though I still maintain that the proposal should not be preferred because it gets the facts wrong about how metaphysics and metaphysicians actually operate). To pull of this response, however, the critic has to reject part of OMS and claim that counterfactuals with impossible antecedents are not trivially true or false. This claim is itself problematic and will be central to the discussion of Chapter 5. Thus, I will leave discussion of it until then.

4.5.2. UMS As a Solution

I will now describe how adopting UMS can solve TPMF. Recall in Chapter 3 that the solution was generated by clarifying the problematic propositions in light of the assumed truth of UMS. I will do the same here.

The proponent of UMS will not deny MF1. She will clarify MF2 and MF3 in such a way that she can either accept or deny them without difficulty. First, let us consider MF3. She will grant that the following is true:

\[ (MF3^*) \text{ We do not know that many bizarre states of affairs suggested in the metaphysics literature are in fact } \text{possible}_{\text{MAX}}.\]

Further, she will grant any version of MF3 that does not significantly weaken the concept of possibility involved in it. However, there will be some notion of possibility that is such that it is strongest notion of possibility that we can bring into a version of MF3 and have her deny that claim. Call that notion of possibility, “possibility_{\text{LIMIT}}.” Thus, the proponent of UMS will deny the following claim:

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\[ 151 \] Return to Chapter 3 to see the details on “possibility_{\text{MAX}}.” Recall that the proponent of UMS holds that there are many different types of concepts picked out our use of the word “possible.” “Possible_{\text{MAX}}” is one of them and corresponds to orthodox accounts of possibility.
We do not know that many bizarre states of affairs suggested in the metaphysics literature are in fact possible\textsubscript{LIMT}.

Should the proponent of UMS be disturbed by this denial? She should not be disturbed because the arguments in favor of MF3 only apply to particularly types of states of affairs. Consider the argument for the conclusion that Black’s sphere world is not possible. The proponent of UMS could easily grant that the sphere world is not possible\textsubscript{MAX}. Additionally, she can use the resources of UMS to show that the sphere world is in many contexts a perfectly reasonable possibility. That is because the vast majority of contexts do not require the depth of states of affairs to cover the divine psychology of God and his creative acts. As for the argument for MF3 based on modal skepticism, she will again concede that there are many states of affairs that we do not know are possible when the context forces us to make the depth of a state of affairs deep. However, we do have some modal reasoning skills, and there are plenty of states of affairs that are sufficiently shallow that our ability to conceive of them is not in doubt. For example, there is some particularly shallow state of affairs that includes just the explicit content of Shaffer’s story about Merlin and Morgana. This state of affairs is explicitly consistent and shallow enough that we might reliably conceive of it.

Thus, in the many clarifications of MF2 and MF3 the proponent of UMS can escape TPMF. In cases where she acknowledges that a version of MF3 is true she will deny the corresponding clarification of MF2. For example, she endorses MF3*, so she will have to deny:

\textbf{(MF2*)} If analytic metaphysics is a success, then we know that many bizarre states of affairs suggested in the metaphysics literature are in fact possible\textsubscript{MAX}.
This denial is not particularly troublesome. Recall the reasons given to adopt MF2.

It appeared that the nature of metaphysics, and in particular its reliance on the method of proposal and counterexample, led to the metaphysician knowing that all sorts of bizarre worlds are possible. The method of proposal and counterexample seemed to entail this because it claimed that a) proposals are necessary truths and b) successful suggestions are possible counterexamples. However, given UMS, this description of the methods of the metaphysician is insufficient. Instead, the advocate for UMS will claim that metaphysical success merely requires that there is some notion of “necessary” and “possible” that results in successful suggestions being states of affairs that are merely possibleLimit.

Of course, the proponent of UMS might be wrong about this last claim. If metaphysicians consistently invoked deep states of affairs in their descriptions of suggested counterexamples, then one might worry that the method suggested by the proponent of UMS does not play a role in contemporary analytic metaphysics.

However, when we look to the examples in the literature, we find that the descriptions of counterexamples are exceptionally thin. Further, the nature of metaphysical knowledge does not seem to be changed by this result. The theist, even if sphere worlds are impossible, ought to think that they pose a problem for the bundle theorist. This is because what we are concerned about when we consider the sphere world is not whether it is actually possibleLimit. Rather, we are interested in what it reveals to us about bundle theory. It reveals to us that we have a deep intuition that in our world things have a certain particularity that is part of them. The proponent of UMS is well within her rights in describing the process of metaphysics in the way she does.
One objection to this move would be that it changes our normal understanding of metaphysics, and does so in a way that I criticized earlier. But there is a difference between the critic’s suggestion and mine. Here, the proponent of UMS keeps the essential form of the proposal and counterexample method and merely clarifies what the metaphysicians are doing. The critic has to claim the metaphysicians are confused about what they are doing and suggests that they adopt a new course.

TPMF is an important problem. If OMS is true, then MF1-3 seem difficult to resist. However, by invoking UMS, one can solve TPMF by arguing that the practice of metaphysics merely requires the use of less than maximal states of affairs. Given a particular concept of possibility, the proponent will be able to deny either MF2 or MF3. Premise 3 of the argument for acceptance of UMS is true.
CHAPTER 5:
THE PROBLEM OF COUNTERFACTUALS

In the last chapter, I defended the claim that The Problem of Metaphysical Failure was an important problem that UMS can solve. One other solution to this problem is to suggest that metaphysicians are not in fact committed to knowing that many bizarre states of affairs are in fact possible (that is, possible in the OMS sense). Rather, one might argue that metaphysicians reason hypothetically. I conceded this point, but pointed out that it committed the objector to the claim that counterfactuals with impossible antecedents are not trivially true or false. This claim contradicts OMS4. In this, the final chapter of the dissertation, I will explore OMS4 and its competitors. I will defend premises 1 and 4 of the argument for acceptance of UMS. I will begin the chapter by presenting the Theory of Impossible Worlds (TIW). Next, I will give the arguments for TIW; one of which is that TIW is useful (in particular, it can solve The Problem of Counterfactuals (POC)). I will then demonstrate that neither of the arguments for TIW succeeds in showing that it should be adopted, and in the process will demonstrate that premise 1 is true. Fourth, I will show that there is significant cost to adopting TIW. Finally, I will conclude the dissertation.
5.1. The Theory of Impossible Worlds

TIW is a theory about modality developed by David Vander Laan. There are at least three propositions that are essential to TIW. They are as follows:

**(TIW1)** There exists more than 1 distinct impossible world (Indeed, there is one of them for every distinct inconsistent maximal set of propositions).

**(TIW2)** OMS5 is false. Rather, we should take the concept of truth at a world as primitive.

**(TIW3)** OMS4 is false. Sentences of everyday language that are equivalent to “If it were the case that P, then it would be the case that R,” express a proposition that is equivalent to *There does not exist a world (possible or impossible) where P is true and R is false and which is more similar to the actual world than all the worlds in which P is true and R is true.*

Note that an adoption of TIW entails that OMS is false. Thus, even if I fail to establish the superiority of UMS over TIW, if the reader adopts TIW, then we will agree on the significant point that OMS needs to be modified. I will next clarify each of these commitments.

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153 On most accounts of maximality, and by what I mean by “maximality,” every inconsistent state of affairs is going to be maximal. That is because for every proposition P, it will be true at every inconsistent state of affairs and a world just is maximal as long it is the case that for every P, either it or its negation is true at that world. However, the above line of reasoning relies on two assumptions. It relies on an assumption about what maximality is and it relies on an assumption about what it is for a proposition to be true at a state of affairs. If one rejects OMS5, as Vander Laan does, then it could be the case that there is some inconsistent state of affairs such that not every proposition or its negation is true at that state of affairs. Also, one might insist that state of affairs are maximal only for every proposition or its negation, that either be explicit true at a world. Thus, while it may seem redundant, I will distinguish between maximal inconsistent states of affairs and inconsistent states of affairs. When I mention mere inconsistent states of affairs one can consider them maximal without any harm. However, the distinction may be meaningful to some people and so I err on that side of causation.


155 Ibid., p. 20.

156 Ibid., p. 111.
5.1.1. TIW1

The first claim, TIW1, is the proposition that distinct impossible worlds exists. An impossible world is a maximally inconsistent state of affairs. So, like possible worlds, an impossible world is such that for every proposition P, either P or not P is true at that world. Further, because the world is an impossible world, there must be some proposition P that is such that both P and not P are true at the world. Finally, it should be noted that there can be any number of propositions P such that both P and its contradiction are true at the impossible world. It is not the case that in an impossible world, for every proposition, it and its negation are true at that impossible world.

Recall Distinctness from chapter 2 of the dissertation:

(Distinctness) If two maximal states of affairs, X and Y, are distinct then it must be the case that the representations of the way the world is must be different; it must be the case that some proposition P is true at one world but not at the other.

If the above description of impossible worlds is true, then there is indeed more than 1 distinct impossible world and TIW1 is true. However, it is a common thought that there are not distinct impossible worlds. The argument for this claim is along these lines:

(NIW1) Distinctness is true.

(NIW2) OMS5 is true.

(NIW3) Thus, by NIW2, for any impossible world, for every proposition P, P is true at that world.
Thus, by NIW1, there cannot be two impossible worlds that are distinct. (If there is more than one impossible world, they represented the world as being the same way. Their only difference would be a haecceital difference.)

I gave some reasons to support NIW1 in the first chapter and will not add to that here. As for OMS5 (A proposition P is true at a world W iff if W were actual, then P would be true), many find it intuitive. We can see why if we consider both directions of the “iff”. First, left to right: Suppose there is some proposition P that is true at that world, but not such that if the world was actual then P would be true. This is absurd. It should be a necessary condition for a proposition to be true at a world that, at the very least, the proposition would be true if the world happened to be actual. What would it mean to say that P is true at a world if this was not the case? Second, right to left. Suppose there is some proposition that is such that if a world W was actual, then P would be true, but not true at that world. Again, this sounds strange. Truth at a world should be based on what would turn out to be true. Otherwise we have an unacceptable gap between what is “true at” and what is true. Further, note that UMS does not reject OMS5. Rather, UMS complements OMS5 by adding UMS5 (A proposition P is explicitly true at a state of affairs W iff P is part of the content of W).

5.1.2. TIW2 and TIW3

Vander Laan recognizes that the above argument, if successful, would show that TIW is false. As he says, “this result is disastrous for a variety of uses to which
we might wish to put the impossible world(s).”\textsuperscript{157} In an effort to avoid this problem he denies NIW2. This leads us to TIW2. In TIW2, not only is OMS5 denied, but Vander Laan holds that the concept of truth at a world is primitive. He does make the suggestion that, perhaps, we could eventually give some sort of analysis of the notion of “true at” relation. He writes, “If the only analyses available are faulty, then it is better to make do with an unanalyzed notion until a correct analysis is found than to endorse a false account as truth.”\textsuperscript{158} But Vander Laan makes no attempt to provide a different analysis. Further, when we reflect on OMS5 we can see why. OMS5 is extremely intuitive and it is hard to see how one might go about rejecting it, nonetheless replacing it with a different analysis. It is for this reason that I think it is fair to say that the proponent of TIW must take the notion of “true at” as primitive.

The most interesting claim of TIW is TIW3. It is only slightly different than OMS4 but the slight difference has big consequences for how we evaluate counterfactuals. Consider any counterfactual that has an impossible antecedent. Call counterfactuals like this, “counterpossibles.” Since OMS4 is true, then when someone expresses this counterpossible, she is merely expressing something that is equivalent to the proposition The antecedent is impossible. Her sentence comes out true and trivially so because the antecedent is in fact impossible. If it was not, then she would not have in fact expressed a counterpossible. In order to express a true counterpossible all you have to do is express a counterpossible.

\textsuperscript{157} Ibid., p. 19.

\textsuperscript{158} Ibid., p. 20.
TIW3 would give a different account of counterpossibles. Let us assume that TIW1-TIW3 is true. Now consider some counterpossible. It is not the case that this counterpossible will turn out to be trivially true; it may in fact be false. For example, take the counterpossible *If God were to command people to torture babies, then God would still be all good.* First, let me reassure you that the above is in fact a counterpossible. I take it that God is all good, all loving, and has necessary existence. If you do not think God exists, then the antecedent is impossible. For, if there was some possible world in God did in fact exist, then He would actually exist. If you think God does exist, then the antecedent is impossible. For, it is plausible to think that God is necessarily all good and all loving. Thus, there is no possible world in which he would command people to torture babies.

TIW3 handles the above counterpossible very differently than OMS4. Since we are assuming TIW3 is true, then the above counterpossible expresses a proposition equivalent to *There does not exist a world (possible or impossible) where God commands people to torture babies and God is not all good and which is more similar to the actual world than all the worlds in which God commands people to torture babies and God is all good.* The first thing we can notice is that there are in fact many impossible worlds where God commands people to torture babies and He is not all good. To determine if the counterpossible is true, then, we must determine if any of those worlds are more similar to the actual world than all the other worlds in which God commands people to torture babies and God is all good. If it is more similar, then the counterpossible is false, if not, then it is true. This is a nontrivial
task and learning the truth of the counterpossible would help us learn something about the actual world.

As for my opinion on the example counterpossible, I think it is false. If I am right about this, then OMS4 is false (but I will discuss that consequence later). I think it is false because when I imagine God commanding people to torture babies, I am struck that it is an evil act and so I form the natural conclusion that God must not be all good in a world in which He does that.

5.2. Two Arguments for Impossible Worlds

Having reviewed TIW, I will now consider the two arguments for it. The first is the argument from ways and the second is the argument from usefulness. After considering these arguments for TIW, I will show that UMS is a competitor to TIW. I will demonstrate that UMS has nothing to fear from these arguments. However, there is significant cost in accepting TIW and I will conclude this section by displaying that cost.

5.2.1. The Argument from Ways

The primary argument for TIW is the argument from ways. We saw above that the reason the impossible worlds theorist adopts TIW2 is because of his commitment to TIW1. The conclusion for the argument from ways is TIW1. If the argument from ways is successful then that gives motivation to accept TIW1 and TIW2.

In The *Plurality of Worlds*, Lewis writes:
The way things are, at its most inclusive, means the way this entire world is. But things might have been different, in ever so many ways….had I not been such a commonsensical chap, I might be defending not only a plurality of possible worlds, but also a plurality of impossible worlds…There are ever so many ways that a world might be; and one of these many ways is the way that the world is.\(^{159}\)

In *Counterfactuals*, Lewis writes:

I believe that things could have been different in countless ways; I believe permissible paraphrases of what I believe; taking the paraphrase at its face value, I therefore believe in the existence of entities that might be called ‘way things could have been.’ I prefer to call them ‘possible worlds.’\(^{160}\)

From these passages we can construct the following argument:

\[(\text{Ways1}) \quad \text{Things could have been different in countless ways.}\]

\[(\text{Ways2}) \quad \text{If things could have been different in countless ways, then there exist many different ‘ways things could have been’.}\]

\[(\text{Ways3}) \quad \text{There exist many different ‘ways things could have been’.}\]

Ways1 is uncontroversial, as no one thinks we live in a Spinozian world. One might, however, challenge Ways2. To show that Ways2 is true, I will start by assuming that Ways1 is true. What does Ways1 mean? Well, an acceptable paraphrase of Ways1 is “There are many different ways things could have been.” This claim is plausibly taken to be an existential claim.\(^{161}\) It says that there are different “ways things could

\(^{159}\) Lewis, 1986a.

\(^{160}\) Lewis, 1973a.

\(^{161}\) This is where the nominalist about possible worlds will step in and stop me. I am not going to address his position here, I did so in chapter 1. I will point out, my goal is not to defend in detail this argument. Rather, Vander Laan bases his argument for TIW1 on this argument and so I am giving it primarily for illustrative purposes. Though, I admit that I think it is sound.
have been.” So, there are many ways things could have been, because Ways1 is true and, thus, so is an acceptable paraphrase of it.

It is difficult to see what the above argument commits us to. It commits us to the existence of something, but what? Lewis thinks it commits us to the existence of many universes just like our own that bear no spatial or causal connections to us. Others, like me and Vander Laan, think that it commits us to the existence of some sort of abstract entity. In any case, the type of things it commits us to are states of affairs, both maximal and non-maximal. The maximally consistent states of affairs are what we call “possible worlds.”

Vander Laan adopts the above argument in an effort to defend TIW1. He gives the following argument:

(Ways4) Certain things could not have been otherwise than they are.

(Ways5) If certain things could not have been otherwise than they are, then there exist many different ‘ways things could not have been.’

(Ways6) There exist many different ‘ways things could not have been.’

Ways4, like Ways1, is taken to be uncontroversial. One might, however, challenge Ways5. Let us assume that Ways4 is true. What does Ways5 mean? The proponent of TIW would hold that an acceptable paraphrase of Ways4 is “There are many different ways things could not have been.” This claim is plausibly taken to be an existential claim. It says that there are different “ways things could not have been.” So, there are many ways things could not have been, because Ways4 is true and, thus,

so is an acceptable paraphrase of it. As before, this argument commits us to states of affairs. These states of affairs are impossible, and we should call the maximal impossible states of affairs “impossible worlds.”

5.2.2. The Argument from Usefulness

The second argument for TIW is the argument from usefulness. The primary use of TIW is that it can solve The Problem of Counterfactuals (POC). Thus, it is to POC that I now turn. I will first present POC. Next, I will defend each of the claims that compose it. Third, I will show how TIW solves the problem.

Consider these three propositions:

(POC1) OMS4 is true

(POC2) If OMS4 is true, then counterpossibles are trivially true.

(POC3) Not all counterpossibles are trivially true.

Let us start with POC1. As I mentioned in the first chapter, OMS4 is part of orthodoxy, but is less orthodox than the other members of OMS. There have been a variety of objections to it and some philosophers have proposed theories that differ from it, though do keep the spirit of it. Additionally, almost all the theories that modify OMS4 do not disagree with it with respect to its take on counterpossibles. This unanimity is due to the fact that OMS4 has a fairly strong argument on its side with respect to counterpossibles. Indeed, there are a host of theories that can be
substituted in to POC1 and POC2 without changing the basic problem. Further, POC2 is trivially true, and an analogous claim would be trivial for any other standard theory of counterfactuals. Thus, to make the problem clearer, I will consider the following The Problem of Counterfactuals:

(POC4) All counterpossibles are trivially true.

(POC3) Not all counterpossibles are trivially true.

The reason many accept POC4 is because it seems that our notion of entailment requires it. The supporter of POC4 will reason as follows:

(POC41) For every p and q, if p is impossible then p entails q.

(POC42) For every p and q, if p entails q then p counterfactually implies q.

Therefore,

(POC43) For every p and q, if p is impossible, then p counterfactually implies q.

POC41 is intuitive and obvious to most. Thus, the controversial premise of the above argument is POC42. Wierenga gives an argument for it that goes as follows:

(POC44) For all propositions p, q, and r, if p counterfactually implies q and q entails r, then p counterfactually implies r.

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164 See Wierenga, 1996, p. 90, Zagzebski, 1990, p. 167 and Vander Laan, 1999, p.104. Of course, POC4 does fall out of the standard semantics for counterfactuals. However, it would be nice to have an argument that does not rely on the standard semantics.

165 Wierenga 1996, pp. 91-92
(POC45) For every proposition \( p \), \( p \) counterfactually implies \( p \).

Now, consider the following substation instance of POC44:

(POC46) If \( p \) counterfactually implies \( p \) and \( p \) entails \( q \), then \( p \) counterfactually implies \( q \).

From POC45 and POC46 we get the conclusion, POC42. Thus, if POC44-45 are true, then POC4 is true. The first part of POC is well motivated.

There is, however, a strong intuitive pull to accept POC3. The way to demonstrate this pull is simply by way of example. I am going to propose some proposed examples of counterpossibles that are either not trivially true or are false. These examples will come from three different areas; reflections on theism, everyday life, and philosophical reasoning.

Interestingly, there are a large number of theists that have proposed counterexamples to POC4.\(^{166}\) This is not to say that theists have special reason to deny POC4. As Wiernga notes:

It would, however, be of interest to learn that theism provides reasons for rejecting the standard account of counterfactuals. But the way theism has figured in the various attempts to draw out its consequences for counterfactual logic is primarily as a source of examples.\(^{167}\)

One example is the one discussed at the beginning of the chapter, *If God were to command people to torture babies, then God would still be all good*. As I reported earlier, when I reflect on this counterpossible I think it is false. Another example


\(^{167}\) Wiernga, 1996, p. 100.
drawn from theism is *If God were not omniscient, He would still be worthy of worship*. When I reflect on this counterpossible, and find myself not only thinking it is true, but non-trivially true. I think this because when I consider, *If God were not all-good, He would still be worthy of worship*, I find this counterpossible false. After all, one of the reasons theist worship God is because He is all-good. If you were to take that reason away, then certainly He would not still be worthy of worship. In the same way, when I consider the counterpossible, *If it were true that 2+1=2, then God would be worthy of worship*, I find it to be non-trivially true as opposed to, *If God were not worthy of worship because He was just an ordinary guy, then God would be worthy of worship*, which I find to be false.

Perhaps, the critic might contend, the intuitions generated here are based on the strangeness of theism. Thus, we need not concern ourselves with them. In response, the supporter of POC3 will point to examples in our everyday life. Here is one given by Vander Laan:

Some time ago my checking account balance was (roughly) $400. One day my credit card bill arrived, so I wrote the Visa Corporation a check for $150 and, because my mind was occupied with less mundane matters, recorded a new balance of $350. The next I received the overdraft notice along with the inevitable $25 service charge. At that point it would have been correct to remark, “‘If 400 minus 150 had been 350, I wouldn’t have overdrawn my checking account.”

He goes on to remark why this example would be nontrivial. For, suppose he had said, “‘If 400 minus 150 had been 19.95, I wouldn’t have overdrawn my checking

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account.’ Surely this is false!” To these, I add the following example: Suppose that I am driving to a party and running late. I intend to take a shortcut to the party, but, because recently there has been construction on that route, I proceed to the party via the normal route. Fortunately, I arrive at the party in the nick of time. I find out later that there was construction on the shortcut and remark “If I were to have taken the shortcut tonight, I would have been late.” Of course, our reaction to this mere counterfactual is that it is true.

Now, change the story slightly. Suppose that I am driving to a party and running late. I intend to take a shortcut to the party, but, because recently there has been construction on that route, I proceed to the party via the normal route. Fortunately, I arrive at the party in the nick of time. I find out later that there was construction on the shortcut and remark “If I were to have taken the shortcut tonight, I would have been late.” Additionally, let it be the case that there exists a strange necessary being that is extremely powerful and whose character is the same in every world. This being takes a particular interest in shortcuts. Occasionally, he decides he does not want anyone to take them and does whatever necessary to prevent people from taking them. Let us suppose that this night, for reasons known only to him, he necessarily prevents anyone from taking shortcuts. Given this, I think that my remark would be false, though it was impossible for me to succeed in taking the shortcut.

Let us change the story one last time. Suppose that I am driving to a party and running late. I intend to take a shortcut to the party, but, because recently there has

\[169\text{Ibid.}\]
been construction on that route, I proceed to the party via the normal route. Fortunately, I arrive at the party in the nick of time. I find out later that there was construction on the shortcut and remark “If I were to have taken the shortcut tonight and no miracles occurred, I would have been late.” However, unbeknownst to me, causal determinism is true. It was, in fact, impossible for me to take the shortcut that night. I still think the remark I made was true, but not trivially so. For, change the last story such that there was no construction and the information I got was wrong. Wouldn’t the remark then have been false? If I went home and found out the information was wrong, wouldn’t I rightly conclude that I had been mistaken? (And not just mistaken in my reasoning. Wouldn’t I be right that I had a false belief?) Additionally, think about what sort of facts we want to know about when we judge these counterfactuals in everyday life. If counterpossibles were trivially true, then many live issues in philosophy, such as the truth of causal determinism, ought to be influencing our reactions to these remarks every day. We ought to seriously wonder, “Could I have really taken a left back there? Is it possible?” And yet, we do not consider these factors.

Rather, the only things that matter in evaluating counterfactuals are the things we choose to make matter. Often, the number of the facts we need to make a judgment on a counterfactual is very limited. We do not seek out entailments and construct detailed scenarios, even when doing so would very likely make the antecedent impossible. We do, sometimes, concede that if the antecedent entails some fact is true, then that further fact should be taken into account. But other times
it does not matter that what the antecedent entails because those facts are beyond the
scope of our interest.

Finally, I turn to examples taken from philosophical inquiry. The first is an
example pointed out by Zagzebski. It comes from a work by van Frassen:

Suppose, however, that all substances cease to be and other substances whose
states are not simultaneous with any states of the former come into being. The
way in which we have phrased this supposition suggests that the other
substances exist after the former. But close scrutiny will show that this is not
the entailed: there is no ground for asserting any temporal relation between the
states of the former and those of the latter, except non simultaneity. So there
would be no way of ordering them all together into a single world history.
Since we suppose that such an ordering is always possible, this supposition is
absurd.

Zagzebski comments that:

A crucial step in this argument is the assertion of the counterpossible: *If all
substances ceased to be and other substances came into being, there would be
no way to order them all into a single world history*… [T]he counterpossible
is neither denied nor reinterpreted in a trivial sense once it is concluded that
the antecedent is impossible, and its nontrivial truth is necessary to get the
desired conclusion. ¹⁷⁰

There are many other examples of this in the philosophical literature. It is a common
habit of philosophers to consider a position they find impossible and draw interesting
conclusions from the position. They often then assert a counterpossible and take it
that their counterpossible is non-trivially true. Additionally, recall one of the
potential responses to TPMF. There, I mentioned that one might think that all
metaphysics is done by considering counterfactuals and counterpossibles. If that is
the case, then that is one more good reason to accept POC3.

¹⁷⁰ Zagzebski, 1990, p. 185.
POC3 is also well-motivated. POC is a genuine problem. Also, it is an important problem. Many other writers have considered it in their works. Solving the problem would have an effect on various other parts of philosophy. If it turns out that UMS can solve the problem, then premise 1 of the main argument is true.

Recall that one of the reasons to consider POC was to show how the proponent of TIW uses it to motivate his theory. If a theory’s usefulness counts towards it acceptance and a theory can solve POC, then that is indeed a reason to view the theory more favorably. TIW can, in fact solve the problem of POC. I will not go into the details here but will merely point out a few aspects of the solution.

First, TIW will deny POC4. Of course, a denial of POC4 entails a denial of one of POC41 or POC42. The only real option is to deny POC41 and then go on to deny POC46.\(^{171}\) How should we evaluate the denial of POC41 and POC46? There are a few things that can be said here in favor of the proponent of TIW.

It not obvious to me that either POC46 or POC41 is true. Wiernga does not give an argument for POC46 and no one I know of offers any other argument in the literature to that effect. So, when considering the price of denying POC46 and POC41, I am tempted to think that it is not all that high. It is surprising to some degree. I admit that I would probably accept these propositions had they been presented to me in a different circumstance. But that is true of many propositions in philosophy. So there is some cost to denying these two propositions, but I do not think the cost is overwhelming.

\(^{171}\) Vander Laan denies POC41; he does not consider Wiernga’s argument.
Second, each of these propositions get their force by playing on our intuitions that if we have some proposition that entails another, then of course it is the case that we have to consider the latter true when considering a counterfactual situation. No doubt, in a discussion about any given counterfactual, this force can be applied. However, that is because the assertor of the intuition is changing the context of evaluation. Like in other areas we have explored in this dissertation, there is a “ratchet” effect at work. When the assertor demands that more information be taken into account, it is very difficult to resist the change in context. Further, we cannot easily or at all make the context less demanding. Thus, when someone asserts POC46 or POC41 they are putting the evaluators in a context that requires them to take seriously the entailments of the antecedent in a given counterfactual or counterpossible. However, we should not mistake this feeling for an acceptance of POC46 or POC41 in all cases. Counterfactuals are notoriously sensitive to context and it may be that sometimes the entailments of the antecedent are not worth very much at all.

For example, the following counterpossible seems false to me, *If there were only one round square in the entire universe, then there would be two round squares in the entire universe*. However, the supporter of POC4 could respond like this: “But wait a second, look at the antecedent closely. ‘If that were so, anything you like would be true’¹⁷²” If I was talking to the objector I would likely concede his point. That would not mean that POC4 is true nor would it mean that there is no truth to the matter about what propositions are expressed by the counterpossibles we utter.

Rather, it means that in this case, the contextual pressure forced me to consider the entailments of the antecedent important. Thus, when I considered various worlds, worlds in which the entailments were not true were considered to be very far from the actual world. Also, when the context shifted, so did the proposition under consideration. It is not the case that a proposition was false at one time and then true at a later time.

Third, the force of the case for POC3 has to be taken into account when evaluating the denial of POC4. The case for POC3 is at least as strong as the case for POC4. In fact, I find it to be much stronger. Thus, while there is some cost to the moves the proponent of TIW makes, I do not think that they are too costly.

If someone denies POC4, then they can strengthen their case by providing an analysis of how counterpossibles work. Both Zagzebski and Vander Laan have provided such an account.\(^{173}\) I do not have the space to go into their accounts in detail and will have to leave the reader with the task of doing that on her own. Further, I have nothing to add to work. However, I will note that I have no problem with their account, in so far as it is account of counterpossibles. Vander Laan does endorse TIW in the process of giving his account and I will address that issue in the next section. For now, I will simply note that POC is an important problem and TIW can solve it.

5.2.3. The UMS Response

There are two good arguments for TIW; the argument from ways being one and the argument from usefulness being the other. TIW is a threat to UMS because it a competitor to UMS. It denies OMS as well and is useful at solving POC. Further, both UMS and OMS make use of impossible states of affairs and differ in some way with orthodoxy on the matter of truth at a world. In this section I will respond to the above two arguments and say why UMS should be preferred over TIW.

First, let us consider the argument from ways. The argument is for TIW1 which states that there exists more than 1 distinct impossible state of affairs. This conclusion does not directly threaten UMS. In fact, I have already shown how UMS makes use of, at the very least, less than maximal impossible states of affairs (if there are any). It would be arbitrary to reject the existence of a type of impossible state of affairs because it is maximal. Thus, I accept that argument and TIW1 with one caveat.

UMS is not an ontological theory. I do not have a problem with TIW1 but it may be that some nominalist does. As I showed in the second chapter, I do not think nominalism threatens UMS, even if it is successful. Here, we can note that if nominalism is successful then TIW is worse off. If nominalism is not successful, then impossible worlds do exist. This would be of benefit to UMS because it would further the need to adopt an account of explicit and implicit truth. Thus, either way, the outlook for UMS improves.

Second, let us consider the argument for usefulness. Here, I also agree with the proponent of TIW. I endorse the denial of POC4 for the reasons mentioned in previous parts of this chapter. There are only minor differences between TIW3 and
UMS4. UMS4 makes use of explicit truth and less than maximal states of affairs. TIW3 does none of these things. These differences, however, are not crucial to the resolution of POC. The program laid out by TIW for analyzing counterpossibles can (and should) be adopted by the proponent of UMS with only minor changes to account for the above differences. I am not going to perform that exercise here, but the reader can, while investigating Vander Laan’s work, make the necessary changes if she so desires. In the same way TIW solves POC, UMS solves POC. Premise 1 of the main argument is true.

Let us pause for a second and take stock of what has occurred. In the last three chapters I have argued that UMS can solve three important problems by rejecting OMS. Two of these problems arose from considerations motivated by modal skepticism and one of these problems arose when we considered our intuitions about counterpossibles. Additionally, I have argued for the methodology of the dissertation. Thus, I am only left with showing that premise 4 of the main argument is true. It is to this task that I now turn.

Both UMS and TIW gain motivation from POC. Further, their account of counterpossibles is very similar. One difference between them, though, is that TIW rejects OMS5 while UMS merely adds to it. If OMS5 is compelling then TIW is more unattractive than UMS in this respect. I argued for OMS5 in section 1.1 of this chapter and I have nothing more to say for it. There, I made a convincing case for OMS5 and showed that TIW is less plausible because it rejects OMS5.

Further, I think we should be uncomfortable with accepting an unanalyzed account of “true at.” Intuitively, the concept of truth at a world is one that ought to be
analyzable. Some concepts bear no relation to any other concept and thus we are not surprised if we have to take them as brute facts. The concept of truth at a world is not like that. Rather, it seems to be based on the concept of truth. Thus, TIW is less plausible because it does not offer a competing analysis of the notion of truth at a world.

Finally, UMS is more useful than TIW. UMS can adopt the crucial ontological premises of TIW, TIW1, and it can mimic the moves TIW makes to solve problems. In addition, UMS can solve the problems involving modal skepticism that we looked at in the previous two chapters. TIW cannot do that because it does not account for the context sensitivity of the word “possible.” Therefore, we ought to view UMS as being more attractive than TIW. Premise 4 of the main argument is true.

5.3. Conclusion

In this dissertation I offered up a competing theory to the orthodox account of possible world semantics. I explored three interesting and important problems and concluded that UMS can solve each one cheaply. I think this is a good reason to accept UMS and defended this reasoning in Chapter 1. I have tried to defend UMS against potential objections while I considered each of these problems. The reader may disagree with my defenses of UMS or, more probably, she think one or two or three of the problems can be solved by other theories than UMS. That is a fair response, and the reader is within her rights if she rejects the argument for UMS on these grounds. However, I would point out that UMS is an intuitive theory and its use
goes beyond problems mentioned in this dissertation. For example, if you are a compatibilist, then you can make use of this theory. If you want to reduce propositions and properties to only states of affairs, then you can make use of this theory. If you want to explore the realms of luck and chance, then this theory will be useful. If you want to think about what it is for something to be epistemically possible, then this theory will be useful. If you find it interesting to consider the various powers of God and what He can and can’t do, this theory will be useful to you. I regret that I have not been able to cover all this ground in the dissertation, but I have hope that others will see the potential of UMS and put it to work in their own projects.
WORKS CITED


