THE WORLD IS NOT ENOUGH: 
AN ENQUIRY INTO REALISM ABOUT MODALITY 

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CHAPTER 1

INTRODUCTION

This thesis involves the topic of modal metaphysics, and so deals with theories of possible worlds. There are many questions that one could ask about the nature of possible worlds and the possible objects they contain. However, the focus in my thesis will be on the question of what constitutes realism about modality. Generally speaking, modal realism entails the idea that possible worlds are real entities. It is common for an area of metaphysics to develop independently and for a system of logic appropriate to that area of metaphysics to arise afterward in response to the metaphysics. However, modal metaphysics developed in the latter half of the 20th century in response to Kripke’s semantics for modal logic. It was the role of possible worlds in Kripkean semantics that led philosophers to inquire about the nature of possible worlds. I will begin this introductory chapter with a brief discussion of modalality and Kripke’s semantics for modal logic.

1.1 Modality

To understand the theories presented later in this thesis, we must first distinguish modal statements from non-modal statements. Consider the following statements:

(1) The sky is blue

(2) Ryan Comeau was born on 04/10/1988
(3) 2+2=4

(4) Ryan Comeau was born on 04/11/1988.

(5) The sky is purple.

The above statements all have truth-values that are determined by the way things actually are. In this case (1), (2), and (3) are true while (4) and (5) are false. But consider the following sentences:

(6) The sky could have been red (i.e. it is possible for the sky to have been red).

(7) Ryan Comeau could have been born on 04/11/1988.

(8) Necessarily, 2+2=4.

(9) Necessarily, nothing can be a square and a circle at the same time.

(6)-(9) are modal claims. These are statements about what is possible or necessarily so. Notice that we must provide truth conditions for such statements in a different manner than we do for non-modal statements. With non-modal statements the statement is true or false in virtue of the way the world actually is. However, in the case of non-modal statements, nothing occurring in the actual world is sufficient to determine their truth-values.

The first account developed to analyze modal statements is usually attributed to Gottfried Leibniz. His account of modal statements allows us to treat modal terms (e.g. ‘possibly’, ‘necessarily’, etc.) as quantifiers that range over what he called possible worlds. What actually is the case is what goes on here, in this world. This is one way for a world to be. Other worlds are other possibilities. Every way that a world could possibly
be is a way that some world is. Consequently, whenever \( x \) might be the case, there is a world where \( x \) is the case. Thus, modality can be conceived as quantification over possible worlds. The following two truth conditions stem from this idea:

(a) ‘Necessarily \( P \)’ is true iff ‘\( P \)’ is true in all possible worlds.

(b) ‘Possibly \( P \)’ is true iff ‘\( P \)’ is true in some (at least one) possible world.

Generally speaking, modal logic works with two modal operators: the possibility operator ‘\( \Diamond \)’ and the necessity operator ‘\( \Box \)’. Both attach to sentences to make sentences, or attach to open formulas to make open formulas. For example, we might write ‘\( \Diamond \) for some \( x \), \( x \) is a swan and \( x \) is blue’ to mean that possibly some swan is blue. Or we might write ‘\( \Box \) for all \( x \), if \( x \) is a swan then \( x \) is a bird’ to mean necessarily all swans are birds. Further, the operator ‘\( \Diamond \)’ can be defined from ‘\( \Box \)’ by letting \( \Diamond P = \neg \Box \neg P \) and the operator ‘\( \Box \)’ can be defined from ‘\( \Diamond \)’ by letting \( \Box P = \Diamond \neg \neg P \). Modal logic is the logic of modal operators.

In modal logic, the notion of a truth-value differs from that of the notion of a truth-value in other logics. There are world relative assessments of the truth-value of a sentence on modal logic. The idea is that ‘the grass is green’ is no longer simply true or false. It is true at world \( w \) (a world in which grass is green) and false at \( w^* \) (a world in which grass is red). Similarly, the set of things that exist will vary from world to world (we need world relative domains), and the set of things that are, e.g., blue will vary from world to world (the extensions of predicates will be world relative). Although Leibniz did not present a formal semantics, we can present the sort of formal semantics for
Leibnizian modal logic. This formulation involves a set of worlds, world relative domains, world relative extensions for predicates (including zero place predicates), and world relative valuation rules for complex sentences. The valuation rules for this formal semantics for Leibnizian modal logic become world relative. For example, \( V(\neg P, w) = \text{true} \) if and only if \( V(P, w) = \text{false} \). The formulation rules for the two modal quantifiers are:

\[
V(\Box P, w) = \text{true} \text{ if and only if, for all possible worlds } u, V(P, u) = \text{true}.
\]

\[
V(\Diamond P, w) = \text{false} \text{ if and only if, for some possible world } u, V(P, u) = \text{false}.
\]

Similarly, *mutatis mutandis* for ‘\( \Diamond \)’.

### 1.2 Kripkean semantics and the accessibility relation

Saul Kripke later developed a semantics for modal logic that involves Leibniz’ insight of quantifying over possible worlds but that allows for us to capture different types of modality. This is made possible by including a relation between possible worlds called the accessibility relation. Accessibility is the relation which holds between worlds \( x \) and \( y \) just in case \( y \) is possible relative to \( x \). Leibniz’ semantics requires that all worlds are equally possible relative to any given world. That may make sense when we are considering metaphysical modality, but not when we are considering other types of modality. Consider physical possibility. Something is physically possible if it obeys the laws of physics and is physically necessary if the laws of physics require it. However, different worlds can have different laws of physics. For instance, many philosophers of

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2 This reads: the valuation of ‘\( \neg P \)’ at world \( w \) is true if and only if the valuation of ‘\( P \)’ at world \( w \) is false.
3 Among the different types of modality are logical modality, deontic modality, epistemic modality, and physical modality. These are beyond the scope of this paper, but worth mentioning in passing.
4 Nolt, pg. 336.
5 See Ibid., pg. 336.
science hold that the laws of physics are the regularities that hold in a given world. Worlds that are more regular will have more laws and vice versa. Thus, on this account, physical possibility is world relative. A Leibnizian account of modal logic does not allow for physical possibility to be world relative—the semantics on a Leibnizian account treats possibility as absolute.

On a Kripkean semantics the key insight is the notion of relative possibility. A Kripkean semantics is similar to the Leibnizian semantics presented above with the addition of an accessibility relation R, allowing for worlds to be possible relative to other worlds.

On Kripke’s semantics, a model consists of a non-empty set of possible worlds W, a binary accessibility relation R between those worlds, and a valuation V.\(^6\) A valuation specifies the truth-value for every sentence at every possible world. It does so by following the standard semantic rules for truth-functional connectives (now relativized to worlds) along with the following rules for modal operators:

\[
V(\Box \Phi, w) = \text{true iff } \Phi \text{ is true at all } u \text{ such that } wRu.
\]

\[
V(\Diamond \Phi, w) = \text{true iff } \Phi \text{ is true at some } u \text{ such that } wRu.
\]

The first two elements of a Kripkean model (the set of worlds and accessibility relation R) are called a frame. A frame validates a sentence if and only if every valuation over that particular frame makes that sentence true at every possible world. Placing various restrictions on R validates different modal axioms yielding different modal

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\(^6\) The term ‘possible world’ in our semantics is just a placeholder and could be eliminated in favor of a more neutral term such as ‘index’.
systems. The most basic modal system, known as K, places no restrictions on R. System K validates a sentence if and only if the sentence is valid on every frame. However, consider placing a restriction on R, say that it is reflexive. This restriction validates the modal axiom ‘□p → p’. Thus, this restriction yields a new modal system, in this case what is known as system T. System K, being the most basic modal system, allows us to build other modal systems that include K.

1.3 The de re/de dicto distinction

Formal modal logic allows for a straightforward explanation of the traditional distinction between de dicto and de re modalities. Generally speaking, ‘de dicto’ means “of the word, description, or linguistic item”, while de re means “of the thing”. In the context of modality, a de dicto claim is one such that the modal operator is operating on a closed sentence containing no unbound variables, while a de re claim is one such that the modal operator is operating on an open sentence containing one or more free variables. Consider the ambiguity between the de re and de dicto readings of ‘the number of planets is necessarily composite’. Modal logic allows us to explain this distinction as a distinction in the scope of the modal operator. In the de re reading, the modal operator has scope over an open formula: ∃x(x is the number of planets & □x is composite). The object that is the value of the variable x is asserted (truly) to have necessary compositeness. In the de dicto reading, the modal operator has scope over a closed formula: □∃x(x is the number of planets & x is composite). It is the sentence that is (falsely) asserted to have the property of being necessary.
1.4 The distinction between actualist and possibilist quantification

Throughout the coming chapters, discussion about actualist and possibilist quantification will be referenced in relation to the views of Lewis and Stalnaker. We need world-relative domains of objects on a modal semantics. This is because an object may exist in one possible world but not another. For instance, we can imagine a world where trees exist (our own world), but we can also imagine a world where trees do not exist.

The distinction between actualist and possibilist quantification has to do with whether we take the values of the variables governed by quantifiers to range only over objects in the domain of the world relative to which truth is being assessed (i.e. the world of evaluation) or over all possible objects (i.e. the members of the domain of any world).

According to the actualist’s theory of quantification, the range of the variables of the quantifier is restricted to the domain to the world of evaluation:

\[ V(\forall x \Phi, w) = \text{true} \iff V(\Phi_{/x}^{\beta}, w) = \text{true} \] (where \( \Phi_{/x}^{\beta} \) is the result of replacing all instances of the variable ‘\( x \)’ with the name ‘\( \beta \)’) for all potential names \( \beta \) of all objects in the domain of \( w \).

\[ V(\exists x \Phi, w) = \text{true} \iff V(\Phi_{/x}^{\beta}, w) = \text{true} \] (where \( \Phi_{/x}^{\beta} \) is the result of replacing at least one instance of the variable ‘\( x \)’ with the name ‘\( \beta \)’) for some potential name \( \beta \) of at least one object in the domain of \( w \).

However, if we allow for the variables governed by quantifiers to range over the objects in the set that is the union of all world-relative domains (sometimes called the hyper-
domain), we yield a possibilist account of quantification. Although Kripke’s semantics generally involves actualist quantification, it allows for possibilist quantification:

\[ V(\forall x \Phi, w) = \text{true} \] if \[ V(\Phi_{\beta/x}, w) = \text{true} \] (where \[ \Phi_{\beta/x} \] is the result of replacing all instances of the variable ‘x’ with the name ‘\( \beta \)’) for all potential names \( \beta \) of all objects in the hyper domain.

\[ V(\exists x \Phi, w) = \text{true} \] if \[ V(\Phi_{\beta/x}, w) = \text{true} \] (where \[ \Phi_{\beta/x} \] is the result of replacing at least one instance of the variable ‘x’ with the name ‘\( \beta \)’) for at least one potential name \( \beta \) of some object in the hyper domain.

Consider the sentence that all swans are blue: ‘\( \forall x (x \text{ is a swan } \rightarrow x \text{ is blue}) \)’. Now suppose a model that includes a world, call it \( w \), in which every swan is blue (i.e. every member of the extension of the predicate ‘is a swan’ is a member of the extension of ‘is blue’), and another world, call it \( u \), in which there is at least one non-blue swan (i.e. there is at least one member of the extension of ‘is a swan’ that is not a member of the extension of ‘is blue’).\(^7\) So, does \( V(\forall x (x \text{ is a swan } \rightarrow x \text{ is blue}), w) = \text{true} \)? On an actualist interpretation of the quantifier the answer is ‘yes’ since \( V(\forall x (x \text{ is a swan } \rightarrow x \text{ is blue}), w) = \text{true} \). However, on a possibilist interpretation the answer is ‘no’ because the quantifier works by quantifying over objects in the hyper-domain, which includes at least one non-blue swan.

\(^7\) For the sake of simplicity, assume that the respective extensions of ‘is a swan’ and ‘is blue’ are the same in all possible worlds on this model.
1.5 Scope of the thesis

The use of modal semantics has proved fruitful in multiple areas of philosophical discourse but has raised metaphysical questions about what a possible world is. In this thesis, I will focus on two particular accounts of possible worlds held by David Lewis and Robert Stalnaker respectively. Lewis explicitly labels his view ‘modal realism’ and Stalnaker asserts that his account is realist in nature. By examining these two views which purport to be realist views, I hope to arrive at criteria for realism about modality. Lewis posits that possible worlds are concrete entities ontologically on par with the world we inhabit. Chapter Two will be devoted to a detailed explication of Lewis’ view. Stalnaker posits that possible worlds are maximal consistent sets of properties of what he calls the total universe. That is, ways the concrete world might be. One possible world is special in that it is the way that the concrete world actually is. Chapter Three will be devoted to a detailed explication of Stalnaker’s view.

The general aim of this thesis is to explore exactly why each considers himself to be a modal realist, and to delineate a set of necessary and jointly sufficient conditions for realism about modality. In Chapter Four I will examine various putative criteria for realism about modality, rejecting some and accepting others. I then will use the criteria to evaluate the views of Lewis and Stalnaker. In the end I argue that, while Lewis’ account satisfies the conditions that I propose, we need not require that possible worlds are concrete if we want to be realists about possible worlds. Further, I will argue that it is questionable whether Stalnaker’s account should count as realist. It may turn out that he
has a realist view only with respect to a proper subset of possible worlds—the ones that contain only actual individuals.
CHAPTER 2

LEWIS’ MODAL REALISM

2.1 Introduction

Lewis propounds that our world is one among many. In fact he claims that these worlds are more like other complete universes. According to Lewis, possible worlds are concrete entities ontologically on par with the world that we inhabit.\(^8\) In this chapter, I will explicate Lewis’ view on possible worlds, which he labels *modal realism*, and briefly examine what he takes to be the motivations for accepting the view. Included in this explication will be a discussion of a variety of what Lewis calls ersatzist views on modality with which he contrasts his own view. Lastly, I will discuss exactly why Lewis takes himself to be a modal realist, aside from the label that he gives his view.

2.2 What are possible worlds?

Just what are possible worlds on Lewis’ view? He makes the extraordinary claim that possible worlds are concrete entities. Concrete entities include rocks, trees, Earth, our universe, etc. Generally speaking, concrete entities have some spatiotemporal location. According to Lewis possible worlds are ontologically on par with the concrete world that we inhabit. In fact, all worlds are ontologically on par with one another. Furthermore, there are infinitely many other worlds that are ontologically on par with one another. On

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his view, there is a concretely existing world for every possible way that a world could be, and these worlds are concrete in the same way that we consider our world to be concrete.

Lewis discusses the concreteness of worlds by appealing to a number of historical ways of distinguishing concrete and abstract entities. First, consider paradigm examples of concrete objects, such as houses, rocks, water molecules, etc. Paradigm examples of abstract entities would include things such as numbers, sets, propositions, etc. However, Lewis notes the unhelpfulness of these examples. For one reason, we do not have a decisive account of what, e.g., numbers are. Further, there are too many ways in which a number differs from a concrete object, such as, say, a donkey. Even so, using examples can tell us about parts of worlds; parts of other worlds are, e.g., exactly like donkeys, simply because they are donkeys. However, Lewis holds that whole worlds and not just parts there of are concrete rather than abstract.  

Lewis notes that abstract entities are sometimes taken to be abstractions from concrete entities.  On one way of interpreting this claim, this is to say that abstract entities somehow lack specificity, or that an incomplete description of the original concrete entity is a complete description of its abstraction. However, he notes that this is a historical approach to the notion of abstraction, and we must consider other accounts. For instance, we might say that a unit negative charge is a universal common to many particles, and it is an abstraction from particles in the sense that it is a non-spatio

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9 Ibid., pg. 82.
10 Ibid., Pg. 84-85.
temporal part of all of them.\textsuperscript{11} Lewis concludes by noting that thinking of the distinction between abstract and concrete entities by way of abstraction, though somewhat unhelpful, helps to support the claim that possible worlds are concrete. After all, they lack no specificity and there is nothing for them to be abstracted from.

On Lewis’ view, possible worlds are of a kind with the world that we inhabit, and as we have discussed above, possible worlds and possible individuals are concrete, not abstract. Just as this world is a collection of concrete entities existing in spacetime, other worlds can be thought of as collections of concrete entities existing in other (equally real) spacetimes.

Lewis goes on to claim that a possible world has parts, namely possible individuals. If two things are parts of the same world, Lewis calls these \textit{worldmates}. Any two things that are spatiotemporally related are worldmates and a world is the mereological sum of all the possible individuals that are worldmates. Further, it is a maximal sum. That is to say that anything that is a worldmate of any possible object is itself a part of the same world. But what is the unity relation between possible worlds? Lewis claims that other worlds and their parts stand in no spatiotemporal or causal connections with the world which we inhabit.\textsuperscript{12} That is, worlds are spatiotemporally and causally isolated from one another. If they were not, then they would just be part of one greater world. Furthermore, parts of worlds do not stand in spatiotemporal or causal relations to other parts of other worlds. Take the notion of a physical spacetime region that contains various concrete objects with various physical properties standing in various

\textsuperscript{11} Lewis goes on to give other examples of how we can make sense of abstractions. See \textit{Ibid.} Pg. 85.

\textsuperscript{12} Ibid., pg. 84.
spatiotemporal and causal relations to one another—e.g. our world. Lewis thinks that other worlds also involve a spacetime of some size and shape containing various concrete objects with various physical properties standing in various spatiotemporal and causal relations to one another. If there were any spatiotemporal distance or causal relations between worlds, they would be parts of one single world. Thus, a world is unified by the spatiotemporal and causal interrelations of its parts.

I mentioned that there are many possible worlds, but just how many are there? Lewis claims, “There are so many other worlds, in fact, that absolutely every way that a world could possibly be is a way that some world is.”\textsuperscript{13} Thus, possible worlds are, as Lewis says, plenitudinous—there is a world for every way things could be. This might be expressed as:

(1) absolutely every way that a world could possibly be is a way that some world is, and

(2) absolutely every way that a part of a world could possible be is a way that some part of some world is.\textsuperscript{14}

(1) and (2) seem to amount to a plentitude principle that entails that logical space is complete. Logical space is complete just in case nothing that is genuinely a possible world would be missing from this space. However, on Lewis’ view there is no real difference between a way a world might be and the relevant possible world itself. Consequently, on Lewis’ view, (1) and (2) do not express plentitude, but rather merely

\textsuperscript{13} Ibid., pg. 2.
\textsuperscript{14} Ibid., pg. 86.
make the trivial claim that the very way a world (or part of a world) is is a way that a world (or part of a world) is. So, rather than adopt such a principle, Lewis suggests that we require a principle of recombination to express the idea that logical space is complete.\(^{15}\) This might be formulated as:

**Principle of Recombination:** For any \(n\)-number of possible objects, those objects coexist in some world and, for any two co-existing objects, there is a world containing one of the objects but not the other.

The idea is that the combining of parts of different possible worlds yields another possible world. Similarly, anything can fail to coexist with anything else. For instance, if there can be a dragon and there can be a centaur, then there can be a dragon and a centaur side by side. If there could not be, this would be a gap in logical space, and thus a failure of plentitude. Thus, the principle of recombination amounts to a principle of plentitude.

However, Lewis cannot fully accept the principle of recombination as it stands. Specifically he cannot accept the claim that anything can coexist with anything. He thinks that worlds do not overlap, and therefore each thing is only part of one world. To say that worlds do not overlap is to say that any object existing in one world is numerically distinct from an object existing in another world. If the same object could exist in multiple worlds, then the objects in those worlds would stand in causal relations with one another. In such a case they would not be in genuinely distinct worlds. A dragon from one world and a centaur from another world do not coexist in the dragon’s world, or in the centaur’s world, or in some other possible world. Instead we can say that a *duplicate*

\(^{15}\) Ibid., pg. 87-88.
of the dragon and a *duplicate* of the centaur coexist at some world. To say that two or more objects are duplicates is to say that they share all intrinsic properties and therefore can only differ with respect to extrinsic or relational properties.\(^\text{16}\) This is not to say that duplicates cannot differ. Duplicate dragons in different worlds may differ in that one may coexist with a centaur and one may not. According to Lewis, the correct principle of recombination will have to refer to co-existing duplicates of objects rather than co-existing objects simpliciter.

Any number of objects can combine by means of coexisting duplicates. Further, any individual will admit of combination of any number of duplicates of itself. For instance, if there could be a dragon, then there could be two duplicate copies of that dragon side by side, or ninety, or an infinite set of them. But this leaves Lewis with a problem:

Only a limited number of distinct things can coexist in a spacetime continuum. It cannot exceed the infinite cardinal number of the points in a continuum. So if we have more than continuum many possible individuals to be copied, or if we want more than continuum many copies of any single individual, then a continuum will be too small to hold all the coexisting things that our principle seems to require.\(^\text{17}\)

It seems that we need our principle to include a revision which states that sets of possible objects should admit of combination by coexisting duplicates “size and shape of spacetime permitting.” When Lewis says ‘more than continuum many possible individuals’, he really means ‘a set of possible individuals with a cardinality greater than the continuum’. The principle must allow for the parts of a world to fit together within

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\(^{16}\) Ibid., pg. 62-63.

\(^{17}\) Ibid., pg. 85.
some size and shape of spacetime. Thus, this is a limitation on the extent to which the world can contain duplicates of possible individuals. The revised principle of recombination is now as follows:

Principle of Recombination*:

(1) for any number $n$ of possible objects, there is a world containing a set of duplicates of first object with cardinality $m$, a set of duplicates of the second object with cardinality $p$, …, a set of duplicates of the $n$th object with cardinality $q$ (size and shape of spacetime permitting); and

(2) for any two co-existing objects, there is a world containing a duplicate of the one but not containing a duplicate of the other.

It is important to note that it is ultimately possible individuals and not the possible worlds that are primitive on Lewis’ view. A possible world is thus a maximal set of possible individuals standing in spatial, temporal, and causal relations to one another.

On Lewis’ view, the term ‘actual’ in ‘actual world’ is an indexical similarly to the words ‘I’ or ‘that’. For example, the word ‘I’ refers to the speaker who utters the word. Similarly, the phrase ‘actual world’ refers to the world in which the term is uttered. Thus, when we claim that, in the actual world, there are no human beings over 10 feet tall, what we say is true because there are no human beings over 10 feet tall in the world we inhabit. But, other worldly beings correctly assert the sentence ‘there are, in the actual world, human beings over 10 feet tall’ because of the indexicality of the word ‘actual’.
According to Lewis, we can think of ‘actual’ as meaning ‘this-worldly’.\textsuperscript{18} When I use the word ‘actual’ it applies to my world and my worldmates. But when someone else uses it, it applies likewise to her world and her worldmates (even if she is a worldmate of mine). So, when we assert that this world is the actual world and all other worlds are non-actual, we are asserting a true statement on Lewis’ view. However, someone in another world can correctly say that his world is the actual world, and that all other worlds are non-actual.

\textbf{2.3 Motivation for Lewis’ view}

Lewis holds that, by postulating possible individuals we not only can address our need to have possible worlds over which to quantify, but we can also accomplish a wide range of other philosophical purposes without the need to postulate additional entities in our ontology. In \textit{On the Plurality of Worlds}, he presents his argument in four subsections which he titles ‘Modality’, ‘Closeness’, ‘Content’, and ‘Properties’.\textsuperscript{19} I will now briefly consider what he has to say about modality, closeness, properties, and propositions,\textsuperscript{20} as these are pertinent to the rest of this thesis. A discussion of Lewis’ view of content is beyond the scope of this thesis.

First, Lewis believes that his theory of modality allows us to provide a completely reductive account of modality rather than having to postulate primitive modality. Lewis has stated his recombination principle (see pg. 13-15) in such a way that it does not rely on any ineliminable modal concepts. The notions of co-existence and containment are

\begin{itemize}
\item \textsuperscript{18} Ibid., pg. 92.
\item \textsuperscript{19} Ibid., pg. 5-96.
\item \textsuperscript{20} Lewis takes propositions to be a species of the properties.
\end{itemize}
defined in terms of spatiotemporal and causal relations and not in terms of what is and is not possible. Thus, Lewis claims he can analyze modal terms without appealing to any modal primitives. Recall our discussion of the Kripkean modal semantics from chapter 1. What are called ‘possible worlds’ on a Kripke semantics for modal logic can be any sort of well-defined objects. As such, we could replace the term ‘possible world’ in the Kripke semantics just with, e.g., ‘index’. Merely knowing that, $V(\Box \phi, i) = 1$ iff $V(\phi, j) = 1$ for all $j$ such that $iRj$ (where ‘$i$’ and ‘$j$’ are indices) would give us no insight into the nature of modality. However, Lewis’ metaphysics provides him with genuine possible worlds to quantify over. Furthermore, the Kripkean modal system with the completely unrestricted relation $R$ (i.e. system K) does not capture any prima facie intuitive notion of modality. It is only by placing certain types of restrictions on $R$ that we get various recognizable types of modality. However, if we did not have an antecedent notion of what type of modality we were aiming at, we would not know what type of restriction to place on $R$. Yet, on Lewis’ view, we get a basic and intuitive sort of modality (metaphysical modality) by quantifying unrestrictedly over his possible worlds. We can then get other types of modality by restricting the range of worlds we are quantifying over in various ways (e.g. restricting them to worlds that are similar with respect to nomological laws or history up to such a point in time). On Lewis’ view, restricting in this way the range of worlds we are quantifying over pays the same role as placing restrictions on the accessibility relation in a Kripkean modal semantics: it serves to demarcate distinct types of modality.
Lewis’ view yields a slightly different modal semantics for quantifiers than the actualist semantics presented in chapter 1. On Lewis’ view, all possible objects exist and so unrestricted quantification would quantify over all possible objects. It is for that reason that we need to explicitly include such phrases ‘at w’ to indicate contexts in which we are restricting the domain of the quantifiers to the objects that exist in a given possible world w. So, the basic sort of quantification on Lewis’ modal semantics is possibilist quantification. He then is able to generate the equivalent of an actualist semantics for quantification by adding ‘at w’ inside the scope of the quantifier. Consider the statement ‘Necessarily, all swans are birds.’ The statement can be analyzed as follows: at every possible world w, all swans in w are birds. The quantifier in the embedded proposition is restricted to the domain of the world of evaluation. So, ‘all swans are birds’ is true at a world w just in case all of the swans inhabiting world w are birds.

Because concrete objects must have spatio-temporal connectedness, a possible concrete object can only exist in one possible world. This complicates the semantics of de re modalities on Lewis’ view. For example, we can imagine a case where Nixon did not win the election in 1968, but rather Humphrey did. Thus, we would like to express this by saying that there is a possible world where Humphrey won the election. However, since Humphrey is an actual individual, he can only exist in the actual world. As such, the only world in which Humphrey himself exists is a world in which he lost the election. Lewis addresses this complication by saying that “Humphrey may be represented in absentia at

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21 See chapter one for a richer discussion on de re and de dicto modalities.
other world just as he may be in museums in this world.”22 When we want to consider a way that a possible object x might have been (but is not in fact), we instead consider a distinct possible object x* in another world. The object x* is said to be the counterpart of x. Counter-parts need not be duplicates of one another but do need to stand in relevant similarity relations. What counts as the relevant similarity relation will depend upon what sort of de re modal claim we are considering.

Lewis claims that when we attach ‘possibly’ to an open formula, it is a quantifier not just over worlds but also over the counterparts of individuals in the world of evaluation. Because the modal terms quantify over worlds and counterparts, the semantics of the statement ‘It is possible that Humphrey won the election’ is unproblematic. Humphrey satisfies ‘possibly x wins’ if and only if, for some world w, for some counterpart of Humphrey in w, that counterpart satisfies ‘x wins’ at w. Thus, Lewis posits that the ability to reductively analyze modality de re and de dicto gives us good reason to accept his ontology of concrete possible individuals.

A second virtue of the view, according to Lewis, is its ability to explain the “closeness” relation between worlds. Lewis claims that our best theory of counterfactuals requires closeness comparisons between possible worlds.23 For instance, the counterfactual ‘If Kangaroos had no tails, then they would topple over.’ is true at a world w just in case, at the worlds closest to w in which kangaroos have no tails, they in fact topple over. What would count as a relevant world closest to w is in part specified by the antecedent of the conditional. In this case, it has to be a world in which kangaroos have

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22 Ibid., pg. 194.
23 Ibid., pg. 20-21.
no tails. However, there will be many worlds in which kangaroos have no tails. Some will be closer to world \( w \) (the world of evaluation) than others. For example, if our world is the world of evaluation, then a world in which kangaroos have no tails and can breathe under water is not as close as a world that differs from our own only in that kangaroos lack tails. So, we can say in general that the counterfactual conditional, ‘If it were the case that A, then it would be the case that B’ is true in a world \( w \) if and only if B is true at the closest A-world from the standpoint of \( w \). In a Kripke-style modal semantics for counterfactuals, instead of a two place accessibility relation \( R \) between worlds (thought of as merely well-defined objects), the semantics specifies a “closeness” function that takes ordered pairs of worlds \( x \) and \( y \). Although there are restrictions on what degree of “closeness” can be assigned to two worlds by this function (the number must be between 0 and 1 inclusive and can be 1 if and only if \( x=y \)), the number is otherwise arbitrary. This leaves the notion of closeness almost entirely inchoate on this semantics. Lewis’ notion of closeness is not merely inchoate. On Lewis’ metaphysic, there are concrete worlds with concrete properties that stand in objective similarity relations. Thus, he can analyze the notion of closeness in terms of similarity between his concrete worlds.

Lastly, consider properties and propositions. According to Lewis, a property is the set of all of its instances in all worlds.\(^{24}\) The property of being a donkey is the set of all donkeys throughout logical space. Propositions are analyzed by Lewis as properties instantiated by entire possible worlds.\(^{25}\) Consider the proposition that there are talking donkeys. Lewis analyzes this proposition as the set of worlds that contain at least one

\(^{24}\) Ibid., pg. 50.
\(^{25}\) Ibid., pg. 51 and 53.
member of the set that is the property of being a talking donkey. Similarly, consider the proposition that all swans are blue. This will be the set of worlds in which the set of things (in that world) that are instances of the property being a swan are also instances of the property being blue. The proposition that Ryan is male will be a set of worlds in which a counterpart of Ryan (I am my own counterpart in this world) is a member of the set that is the property of being male. In general, propositions involve objects, properties, and relations. So, a proposition is the set of worlds containing (counterparts of) the relevant objects that are members of the sets that are the relevant properties/relations. For a proposition to hold at a world or to be true at a world is for that world to be a member of the set of worlds that is that proposition.

2.4 Ersatzism

Lewis contrasts his modal realism with what he calls modal ersatzism. Rather than positing possible worlds as concrete entities in isolated spacetimes, the ersatzist holds that possible worlds are something else capable of representing possible situations and individuals in the quantificational analysis of modality. On the ersatzist account, there are many (probably infinitely many) possible worlds representing ways that the world we inhabit might have been. However, none of these possible worlds is ontologically on par with the world we inhabit. If we consider an ersatzist view according to which possible worlds are, for example, maximal consistent sets of sentences, then the actual world too is a maximal consistent set of sentences. As such, the actual world is not on an ontological par with the concrete world we inhabit. The ersatz world that represents the concrete world correctly is the world that is actualized, while
the rest of the worlds are unactualized. Other worlds represent ways a concrete world might have been. Lewis notes that these entities represent (other) concrete entities. They are representations in that it makes sense to speak of what is the case according to them and they are representatives which take the place of what they purport to represent.\(^{26}\)

I have been describing the ersatz view in general. I will now consider in more detail the type of ersatzism, which Lewis calls linguistic ersatzism, and according to which possible worlds are maximal consistent sets of sentences.\(^{27}\) For instance, Richard Jeffrey proposes that worlds are “complete consistent novels”. He states:

> A novel describes a possible world…in as much detail as possible without exceeding the resources of the agent’s language. But if talk of possible worlds seems dangerously metaphysical, we can focus attention on the novels themselves, and speak of a complete, consistent novel as actually being a possible world.\(^{28}\)

Assume that our worldmaking language is English. According to a novel, a donkey talks if and only if that particular novel contains a sentence ‘A donkey talks’. Lewis distinguishes between explicit and implicit representation. In the former case we can say that a donkey talks according to a novel if and only if that novel contains a sentence that means, when interpreted, that a donkey talks. The latter is to say that a donkey talks according to a novel if and only if there is a set of sentences which, when interpreted, together imply that the donkey talks.

I have mentioned ersatz worlds, but what about other worldly individuals? Just as there are actualized worlds and unactualized worlds, there are actualized ersatz

\(^{26}\)Ibid., pg. 137.

\(^{27}\)Ibid., pg. 142.

individuals and unactualized ersatz individuals. The concrete individuals are the individuals that are actualized. A possible world is a representation and represents various individuals existing. The individuals are represented as existing by names/descriptions that occur in the sentences that make up the world.

Lewis goes on to discuss that we might take a sentence to be the sequence of phrases which are its immediate constituents, a phrase is the sequence of phrases which are its immediate constituents, and so on until we have phrases which are single words. Consequently, linguistic ersatz worlds are set-theoretic constructions out of words. A word is the set of its particular inscriptions or the set of spatiotemporal regions where it is uttered. It follows that ersatz worlds, on the linguistic ersatz view, are set-theoretic constructions out of parts of the concrete world. As we can see the linguistic ersatzist does not require that we postulate anything that we are not already inclined to postulate (words and set theoretic constructions thereof). Lewis’ view requires that we postulate concrete non-actual individuals and worlds. However, as we saw earlier, he believes that this addition to our ontology nonetheless provides greater parsimony in that we are able to provide a reductive account of modality, closeness, properties, and propositions. He argues that the ersatzist cannot provide such a reductive account of these notions.

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29 Lewis, *On the Plurality of Worlds*, pg. 142-143.
30 Ibid., pg. 140-141.
2.5 Extreme Realism

Lewis gives his account of possible worlds the self-proclaimed title “modal realism”. He explicitly states:

…my modal realism is simply the thesis that there are other worlds, and individuals inhabiting these worlds; and that these are of a certain nature, and suited to play certain theoretical roles.  

According to Lewis, possible worlds exist and, not only do they exist, they exist in the same way as does the world which we inhabit. Thus, modal realism, on Lewis’ view, is the idea that modal objects exist as concrete entities ontologically on par with the world and entities in the world that we inhabit. Since for Lewis all actual and non-actual objects exist in the same way that you or I do, Lewis considers himself to be a realist about possible worlds.

Contrast Lewis’ view with the ersatzist view. The ersatzist claims that there are no other concrete worlds. Rather, there are things that represent ways a concrete world might have been. Possible worlds on the ersatzist view are merely representations. Lewis is inclined to think that, since they are merely representations of ways a genuine (concrete) world might be, they are not genuine worlds are all. They are fake worlds. On the other hand, Lewis claims that possible worlds are not representations, but rather concretely existing genuine worlds. As Lewis sees it, the only genuine world on the ersatzist metaphysic is the concrete world we inhabit and it is not something that the ersatzist would regard as a possible world. Ersatz possible worlds may exist, but they do not exist.

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31 Ibid., pg. viii.
as genuine *worlds*. Lewis concludes that the ersatzist is, thus, not a realist about possible worlds.

### 2.6 Conclusion

Thus far, I have considered Lewis’s account of possible worlds and described why he takes himself to be a realist when it comes to possible worlds. Lewis’ view is unique in that he thinks that possible worlds are concrete entities ontologically on par with our own. In the next chapter, I turn to a rival account of possible worlds, Stalnaker’s account. As we will see, Stalnaker also takes himself to be a modal realist about modality. However, his account differs in that he does not claim that possible worlds are concrete entities existing in the same way as does the world we inhabit.
CHAPTER 3

STALNAKER’S MODAL REALISM

3.1 Introduction

Chapter two focused on Lewis’ account of possible worlds: possible worlds are concrete entities ontologically on par with the world that we inhabit. And as we discussed, Lewis’ account is realist in nature. I turn now to Stalnaker’s account of possible worlds. Like Lewis, Stalnaker claims to be a realist about possible worlds, but as we will see he differs vastly in his approach. My goals for this chapter are threefold. First, I will explicate the specifics of Stalnaker’s account of possible worlds. Secondly, I will discuss the implications that merely possible objects have for Stalnaker’s account, and discuss his solution to these problems. Finally, I will consider the reasons why Stalnaker claims that he is a modal realist.

3.2 Stalnaker’s account of possible worlds

Stalnaker posits that possible worlds are properties—ways a world might be. Possible worlds are properties of the total universe. Generally speaking, the total universe is akin to what Lewis takes to be the actual world: a (largely though not entirely) concrete entity that includes a spacetime containing various individual things and having various properties which stand in various relations. So, there is a particular way that the total universe is, but there are also ways that it could have been. These ways that it could have
been, along with the way it is, are the possible worlds. The way that the universe is is the actual world, while the other ways that the universe could have been are merely possible worlds. What Stalnaker calls the actual world is not the total universe but rather the property of being a way that the universe might have been that is in fact the way it actually is.

On Stalnaker’s view, possible worlds are like *containment* properties. Take, for example, an envelope and the range of properties that it has. Specifically, consider properties that concern what is inside the envelope. Call these first three *generic containment properties*: 32

(1) the property of containing three sheets of blank white paper, size A4.
(2) the property of containing a reprint of a critical notice, published in *Mind*, of David Lewis’s *On the Plurality of Worlds*.
(3) the property of containing two photocopies of a handwritten letter from Ludwig Wittgenstein to Saul Kripke.

Also, call the next two *specific* containment properties: 33

(4) the property of containing three *particular* sheets of blank, white paper, size A4 (in a particular order).
(5) containing *this* reprint of a critical notice, published in *Mind*, of David Lewis’s *On the Plurality of Worlds*.

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33 Ibid., pg. 14.
Specific containment properties are those properties that specifically include a particular object (e.g. only one piece of paper is that piece of paper), while generic containment properties are properties whose instantiations may include any of a range of suitable objects (e.g. many different pieces of paper have the property of being white).

We can also have properties that are partly specific, partly generic. Take the following for example:

(6) the property of containing a certain specific sheet of paper, and two others (all blank, white, size A4).

For every instantiated generic containment property there is a corresponding specific containment property and both are instantiated by the same thing. This correspondence relation is a second-order binary relation. For example, for (4) to be instantiated is for (1) to be instantiated. However, if (1) is instantiated some specific containment property (maybe 4, maybe some other one) is instantiated.

When thinking of the claim that possible worlds are properties, we can think of these possible worlds being more like containment properties. Possible worlds are similar to envelopes in that they contain things within them, and they might have contained other things that are not in fact in them but could have been. Thus, a possible world is like a containment property that is partly generic, partly specific.

Furthermore, Stalnaker claims propositions are a subspecies of properties. He is able to do this by taking propositions to be truth conditions, rather than to have a truth condition. Consider the proposition expressed by the sentence ‘Ryan Comeau has a

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34 This is a second-order relation because the relata are themselves properties.
younger sister’. This proposition is identified with the truth condition that obtains if and only if the property of Ryan Comeau’s having a younger sister is instantiated. Since Stalnaker identifies propositions with properties, he can talk about possible worlds entailing various propositions. We do not usually talk about entailment relations between properties. We do, however, often talk about entailment relations between propositions. Consequently, if we identify propositions with properties, we can analyze possible worlds not just as properties, but as propositions. Thus, it makes sense to speak of possible worlds entailing various propositions. Just as possible worlds are maximal properties—ways a total universe might be—possible worlds are maximal propositions. A proposition is maximal just in case, for every proposition p, either p or its contradictory is entailed by it.

Stalnaker introduces a minimal theory of propositions, that is, a theory that imposes no structure on propositions except what is necessary to define standard propositional relations. His theory includes the following 6 theses:

(W1) The set of all true propositions is consistent.

(W2) Any subset of a consistent set is consistent.

(W3) Every proposition has a contradictory.

(W4) Every consistent set is a subset of a maximal consistent set.

(W5) For every set of propositions Γ there is a proposition A such that Γ implies A, and A implies every member of Γ.

(W6) Equivalent propositions are identical.
Stalnaker claims that two propositions A and B are contradictories if and only if \( \{A, B\} \) is inconsistent, and for every consistent set of propositions \( \Gamma \) either \( \Gamma \cup \{A\} \) or \( \Gamma \cup \{B\} \) is consistent.\(^{36}\) He defines the maximal consistency of a set of propositions as follows: \( \Gamma \) is \textit{maximal consistent} if and only if it is consistent, and for every proposition \( x \), if \( \Gamma \cup \{x\} \) is consistent, then \( x \in \Gamma \).\(^{37}\) Furthermore, two sets of propositions \( \Gamma_1 \) and \( \Gamma_2 \) are \textit{equivalent} if and only if for every set of propositions \( \Delta \), \( \Gamma_1 \cup \Delta \) is consistent iff \( \Gamma_2 \cup \Delta \) is consistent.

He goes on to claim that a set of propositions \( \Gamma \) \textit{entails} a proposition \( x \) iff \( \Gamma \cup \{x\} \) is equivalent to \( \Gamma \).\(^{38}\)

3.3 \textbf{Merely possible objects}

Up to this point I have ignored a complication of Stalnaker’s view. Among the modal claims we may want to make are claims about possible objects, e.g. the possibility of Kripke having had a seventh son or of there being a handwritten letter from Wittgenstein to Kripke. These are non-existing (though presumably possible) objects.

Stalnaker subscribes to an actualist account of semantics in his modal theory. As noted in Chapter 1, actualism is a view about modal semantics, specifically about the range of our quantifiers in modal logic. The idea is that our quantifiers range only over the individuals or objects in the world of evaluation. For instance, if we want to know the truth-value of a proposition in world \( w \), world \( w \) is the world of evaluation. Consequently, according to Stalnaker, actualism, along with the fact that existential claims that we make are to be evaluated with respect to this world, entails that there are

\(^{36}\) See Ibid., pg. 34.
\(^{37}\) See Mere Possibilities, pg. 24.
\(^{38}\) See Ibid., pg. 24.
no merely possible individuals. That is, the only things that exist are the things that actually exist.

A consequence of Stalnaker’s actualism (combined with his view that singular propositions are object dependent) is that the only possible worlds that exist are ones that involve objects that actually exist in the total universe. He states, “…the only possible worlds there are—ways things might have been—are (like everything that exists at all) elements of our actual world” Possible worlds involving merely possible objects, therefore, do not exist. So, Stalnaker needs to account for how to make sense of modal claims involving merely possible objects.

Consider a merely possible pair of generic dice and the thirty-six possible ways that these dice may land. There is a possible state of the total universe in which the two dice are thrown and one lands 6 and the other lands 5. Yet, according to Stalnaker there is not a different state or property in which the same two dice are thrown and one lands 5 and the other 6. This is because these are hypothetical dice and so there is no fact of the matter which is which. We can, however, talk about the pairs of specific properties that do not exist by using a second-order permutation relation. Stalnaker’s account of possible worlds allows for this. He states:

We cannot distinguish specific die A from specific die B, from the perspective of the actual world, where neither exists, but we can talk, in a general way, about specific properties of the form A lands 5, and B 6, and

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39 Singular propositions are directly about a particular object, e.g. the proposition ‘Plato was Greek’ is about the particular individual ‘Plato’. A singular proposition is object dependent if and only if the proposition cannot exist unless the individual the proposition is about exists.

40 “Possible Worlds.”, pg. 33.

41 This example is taken from Saul Kripke, Naming and Necessity. Cambridge: Harvard, 1972.
we use the second-order permutation relation to talk about pairs of specific properties, both of this form, but with the A and B reversed.\textsuperscript{42}

A second-order permutation is second order in the sense that it is a relation dealing with properties. As noted earlier, any time a generic containment property is instantiated a specific containment property is instantiated. This gives rise to a second-order property, namely, the property of being a specific containment property that is an instantiation of the generic containment property. These second-order properties are properties of these properties. Consider the generic containment property of being a possible world containing two dice (call them A and B) one of which comes up a 6 and one of which comes up a 5 (call this property $k$). Were this property actually instantiated, it would be instantiated by one of two specific containment properties: either (i) being a possible world in which die A comes up a 6 and die B comes up a 5 (call this property $h$) or (ii) being a possible world in which die A comes up a 5 and die B comes up a 6 (call this property $j$). Property $j$ is a permutation of property $h$. The generic containment property $k$ gives rise to the following second order relation: being a permutation of specific containment property instantiating $k$. Properties $j$ and $h$ stand in this second order relation to one another. Stalnaker uses second-order permutations to talk about sets of specific containment properties. So, according to Stalnaker, we can talk about the possible specific properties which represent facts about the generic situation, e.g. the fact with respect to the possible situation in which one die lands 6 and the other 5 that the die that landed 6 might have landed 5 and the die that landed 5 might have landed 6.

\textsuperscript{42} \textit{Mere Possibilities}, pg. 19.
However, Stalnaker notes a problem: there are cases where there are no specific properties corresponding to the generic properties. It seems plausible to assume that there were not any letters exchanged between Wittgenstein and Kripke (based on the particular circumstances of both of their lives), and, consequently, there are no photocopies of a handwritten letter between Wittgenstein and Kripke. If this is correct, than there are no specific containment properties corresponding to (3). But, the correspondence claim still holds—the generic property (3) would be exemplified by the envelope only if a corresponding specific property were also exemplified by the same envelope.

Furthermore, consider negative generic and specific containment properties (e.g. not containing a reprint of an important notice, published in *Mind*, on Lewis’ *On the Plurality of Worlds*). If a negative generic containment property is instantiated, then so too are all of its corresponding specific containment properties. Consider the negative property $p$ of not containing a handwritten letter from Wittgenstein to Kripke. Presumably there were no such letters and so no corresponding specific negative containment properties (even though were any to exist, it would be instantiated by every existing envelope). Thus, there is a property that does not exist (it is merely possible) that would be instantiated by the total universe had it existed.

Further, consider a world that contains Kripke (a specific thing) and Kripke’s seventh son (a non-actual thing of a certain kind). We can then take the following counterfactual: if the property of being a world that contains Kripke and his seventh son were exemplified, then there would be the more specific property—the property of containing Kripke and *that* person who is his seventh son—that is exemplified. Thus, on
Stalnaker’s view, we have not only a merely possible object, but also merely possible containment properties. Clearly there are no persons existing who might have been Kripke’s seventh son, and thus no property of such a sort will be exemplified. However, we can still talk about these possibilities using second-order properties and relations. On Stalnaker’s account, we can use second-order properties and relations to talk about possible specific properties that do not exist. Here we must distinguish between a property that fails to exist and a property that fails to be instantiated/exemplified. For example, the property of being a 90 foot tall human being is not, never has been, and probably will never be, exemplified. This property exists but is not exemplified, whereas the property of being a round square does not exist at all.

We are now in a position to explain why a maximal proposition, call it D, that is a possible world where one die comes up 6 and the other 5 is only contingently maximal according to Stalnaker for the proposition ‘there is a die that came up 6’. Although the proposition D is maximal, were the truth condition of D to actually obtain, it would not be maximal because the relevant specific propositions about what the individual dice actually came up would exist but would not be entailed by it.

With all this in hand, Stalnaker can give the truth conditions for the example ‘Possibly, Saul Kripke has seven sons’, without committing himself to the existence of a person that is Kripke’s seventh son. The statement is true if and only if there is a maximal proposition that entails the existential proposition that Saul Kripke has seven sons.

Stalnaker states:

This gives truth conditions for the possibility statement as a function of the inner proposition that is said to be possible, but we need our recursive
Consider the statement ‘It is possible that Saul Kripke has seven sons’. In this example the inner statement is ‘Saul Kripke has seven sons’. It seems that the inner statement ‘Saul Kripke has seven sons’ can be true, relative to a non-actual possible world, only if there are seven distinct true statements of the form “x is Saul Kripke’s son.” However, because we do not have seven singular propositions of such a form there will not be an appropriate witness for the existential proposition that Kripke has seven sons. For the proposition that Kripke might have had seven sons to be true, there needs to be a maximal proposition, call it K, that entails that Kripke does have seven sons. However, proposition K is only contingently maximal—Kripke does not in fact have seven sons, and consequently, there does not exist a proposition of the form ‘x is Kripke’s seventh son’. Thus, K decides every proposition that actually exists even though it entails an existential proposition (e.g. Kripke has a seventh son) that lacks a witness. K is contingently maximal because were K to be true of the total universe, Kripke would have a seventh son and there would be a (true) proposition of the form ‘x is Kripke’s seventh son’ that is such that neither it nor its contradictory was entailed by K.

Further, a proposition can be maximal even if it fails to be fully specific. Stalnaker takes “fully specific” to mean that for every existential proposition that it entails, it will entail a singular proposition that is a witness to that existential

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43 Mere Possibilities, pg. 20.
44 For example, take the proposition 'Some males are graduate students'. A witness to this proposition might be Ryan who is a male graduate student. Notice that the existential proposition replaces the bound variable in the former with a specific individual.
Since properties/propositions that are possible worlds are contingent entities (their existence is dependent upon the existence of the specific objects they involve) we realize that (a) there are negative containment properties that do not exist but would be instantiated by the total universe if they did, (b) that a maximal proposition need not be fully specific, and (c) that a maximal proposition may be only contingently maximal.

3.4 Stalnaker’s Semantic Model

Stalnaker moves from his theory of modality proper (possible worlds as maximal properties/propositions) to positing a semantic model. This is because, if we allow for contingently existing propositions and for the possibility of propositions that do not exist, then how can possible worlds be maximally consistent properties while having the possibility to be further refined? On Stalnaker’s view, logical space is partitioned by maximal properties. But the way that logical space is partitioned is a contingent matter. Its partitioning is dependent on the resources available in the actual world, the world in which our theory of propositions is being stated. For example, what would happen if one of the maximal propositions that is actually false were instead true (i.e. what would happen if a merely possible world were actual)? Take the example of Kripke’s dice mentioned above. The dice in this example are merely possible objects—the dice do not actually exist. And because the dice are merely possible objects, the proposition that one die lands on five and the other lands on six, is entailed by a proposition that is a merely possible world in which these dice exist. Were the actually false maximal proposition that

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entails that one die lands five and the other six true, it would not be maximal since a further refinement (really two) would be possible.

Stalnaker devises a means of dealing with the difficulty of contingently existing propositions in his semantic model. First, he claims that, given any particular partition of logical space, the points within a given cell form an equivalence class that represents a maximal proposition. At the same time, there is a function from each point in logical space to a specific partition of the space (we can think of this as the set of particular maximal propositions that would exist were that point the actual world).46 There must be structural constraints on the equivalence relations to ensure that each of the points in the maximal equivalence class will decide higher-order propositions in exactly the same way. Without these structural constraints, points in the same cell could vary in the way that they decide the truth-value of all other propositions. Consequently, they would not have the same representational significance.47

It is the points that play the role of possible worlds on this model. One of the points in the model represents the actual world and determines a partition of the logical space into cells that represent maximal consistent propositions, and thereby determines all of the actual propositions. The distinct points within a given cell form an equivalence class and equally represent the same maximal proposition. Although only one of the points in the model represents the actual world and determines the actual partition of logical space, any one of the points in the same cell as the actual world-point could represent the maximal proposition that is actually true of the total universe. So, every

46 Mere Possibilities, pg. 32.
47 Stalnaker provides the structural constraints in Mere Possibilities, pg. 136-138.
point in the space is a possible world and potentially the “actual world”. The partitioning of logical space into finely grained cells by any given point may differ from that determined by the actual “actual world” and thus may determine a different set of equivalence classes and with it a different set of existing propositions. The equivalence classes that would be determined by point $x$ will be the maximally consistent propositions that would exist if $x$ happened to be the actual world.

3.5 Moderate Realism

Stalnaker claims that the view he is defending is a form of moderate realism. In “Possible Worlds” he states: “…the moderate realism I want to defend need not take possible worlds to be among the ultimate furniture of the world.” He further claims:

…there are individuals—actual ones only—…there are also properties, propositions, and relations (again actual ones only)…[and] there are (according to our theory) not only properties of individuals but also higher-order properties and relations: properties of properties, relations between properties, and relations between properties and other things.

In reflecting on Stalnaker’s moderate realism it is important to keep in mind the distinction between what is being modeled and the model itself. He is a realist about possible worlds when taken as maximal properties—ways the total universe might be. However, he is not a realist about what the model represents as possible worlds. Although it is the points and not the cells that represent worlds on Stalnaker’s model, he does not take himself to be a realist about the worlds as modeled by the points. If he had taken the cells of his model to represent possible worlds rather than the points, he could argue that

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48 “Possible Worlds”, pg. 38.

49 *Mere Possibilities*, pg. 36.
he is a realist about what the model represents as possible worlds. But, because he is committed to the idea that that maximal consistent propositions are only contingently maximal, he is forced to have the points and not the cells represent possible worlds.

Although Stalnaker does not have a fully realistic interpretation of his semantic framework, he does take the framework to model something that is indeed real, namely propositions. Thus, Stalnaker is not a realist about merely possible objects. However, he is a realist about higher order properties and relations, and so he does take himself to be a realist about the aspects of his model that allow him to provide truth conditions for modal propositions ostensibly about merely possible objects.

Because possible worlds are properties/propositions, they are not representations on Stalnaker’s view. As such, Stalnaker’s view is arguably not a version of what Lewis calls modal ersatzism. However, the points in Stalnaker’s semantic model are representations. They represent the properties that we are claiming to be possible worlds. The points themselves are not properties, but rather they are points in abstract space that are being used to represent possible states of the world. So, possible worlds themselves are not representations, but the points and cells of his formal model are.

Stalnaker is aware that some will be concerned about whether a theory can count as a realistic one when its semantic model contains non-realist elements. Stalnaker notes that it is possible to “factor out” the artificial aspects of the model so as to highlight the aspects of the model that represent something taken to be real. He uses the analogy of

50 See Alan McMichael, “A Problem for Actualism about Possible Worlds.” Philosophical Review 92, 1983, 49-66. McMichael posits two reasons for subscribing to a realist semantics: (1) any semantics that contains a nonrealistic elements will have the problem of distinguishing between which aspects of the semantics are of genuine significance and what aspects are merely artificial, and (2) we have trouble supplying conditions for truth on a semantics that contains non-realistic elements.50
a relational theory of space to help explain his response. The spatial relationist claims that there are no such things as spatial locations, but rather there are only spatial relations between things. However, the best way to model space is with a mathematical space made up of points (Stalnaker refers to these as *so-called* spatial locations\textsuperscript{51}). A physicist can be a realist about spatio-temporal relations and a realist about the physical objects that exemplify these relations without being a realist about the spatial locations themselves. Merely possible individuals and the points in the logical space used in Kripke models are analogous to the model of spatial structure used by the relational theory of space. To “factor out” artificial aspects of the spatial model, we must add an equivalence relation between spatial models. Equivalent models are those that differ in artificial aspects, while agreeing on the realistic claims that they make about the spatial relations between things. For instance, because the laws of Newtonian physics are invariant in all inertial frames, we might accept Newtonian physics while being a Galilean relativist, and hold that there is no absolute velocity, but only velocity relative to an inertial frame. The Galilean relativist might be anti-realist about spatial locations, but he can use the same framework as the Newtonian absolutist to represent his theory. Further, he can factor out the anti-realist aspects of his physics from the aspects that he is claiming to be fact of the matter. It is an equivalence relation that is defined by a class of permutation relations on spatio-temporal points that makes the notion of an inertial frame, and the notion being a Galilean relativist precise. In Stalnaker’s account of possible worlds, he can do the same

\textsuperscript{51} *Mere Possibilities*, pg. 33.
work with the same precision because his model allows us to factor out the non-realistic aspects of his theory.

3.6 Summary

Chapter 2 focused on Lewis’ account of possible worlds, highlighting his reasons for thinking that realism about modality requires that possible worlds be concrete objects of the same sort as our universe. This chapter has focused on Stalnaker’s view and highlighted the reasons he takes himself to be a realist about modality, even while rejecting Lewis’ extreme realism. In chapter 4, I will explore various criteria for realism about modality to in turn answer the question of whether Stalnaker’s view really counts as a realist view.
CHAPTER 4

A PROPOSAL CONCERNING REALISM ABOUT MODALITY

4.1 Introduction

The previous chapters have focused on different accounts of modality with a specific focus on Lewis and Stalnaker’s views. Both Lewis and Stalnaker claim to be realists about possible worlds. Ultimately the purpose of this chapter is to propose criteria for modal realism. In doing so, I will explore other accounts of realism, varying from moral realism to scientific realism, to help provide evidence for my proposed criteria. I will argue that, on the criteria I identify, we have reason to say that Lewis is a realist when it comes to possible worlds. However, what should be said about Stalnaker is less than clear. At the end of this chapter, I will explore whether or not Stalnaker’s view meets my proposed criteria and he can justify calling himself a modal realist. Ultimately, I will conclude that, while there are some aspects of his view that satisfy the criteria for realism, Stalnaker cannot be considered to be a realist about worlds containing merely possible objects.

Generally speaking, realism about some set of objects and/or properties involves accepting existence claims concerning them. For instance, realists about material objects hold that material objects exist over and above our mental representations of them. Scientific realists hold that the entities postulated by our best scientific theories exist
independently of our theories in contrast to scientific antirealists who hold that terms putatively referring to such objects do not succeed at referring to anything that exists in the world. Mathematical realists holds that mathematical entities exist independently of minds whereas mathematical antirealists hold that mathematical objects are the result of human invention. So, it is plausible that any view that is to count as a version of realism about modality must hold that possible worlds (or other modal entities or properties) exist. However, other criteria will likely be necessary for realism about modality. Before positing my criteria, it is important to discuss whether we need to make as strong of a claim as Lewis does to be a realist about possible worlds.

4.2 Need possible worlds be concrete?

Lewis would have us add an additional criterion for realism about modality: that possible worlds are concrete. I find Lewis’ claim to be too strong. We do not need to endorse such a radical view to be realists about possible worlds. In this section I will explore and ultimately reject that such a claim is necessary. In supporting his modal realism, Lewis argues, via an abductive argument, that possible worlds are concrete entities ontologically on par with the world we inhabit. Although it may be that we need possible worlds to be concrete in order to accomplish the theoretical work that Lewis proposes possible worlds accomplish, it is far from clear whether concreteness is a necessary condition for realism about modality.

What is clear is that there are types of realism that do not require the relevant objects or properties to be concrete. We can look at realist accounts that do not require concreteness such as mathematical Platonism. Mathematical Platonism is the view that
mathematical entities exist as abstract entities and are independent of our thoughts, culture, language, etc. For instance, Kurt Gödel defines mathematical Platonism as:

> The view that mathematics describes a non-sensual reality, which exists independently both of the acts and [of] the dispositions of the human mind and is only perceived, and probably perceived very incompletely, by the human mind.  

In the case of mathematical Platonism, we can have mathematical entities that really exist, but that are abstract entities rather than concrete. Abstract entities differ from concrete ones in that they do not take up space or time and may not stand in any causal relations. Perhaps the most famous argument for mathematical Platonism is an argument put forth by Gottlieb Frege. The argument is that mathematics purports to refer to and quantify over abstract mathematical objects. And, it seems plausible to say that a good number of mathematical sentences are true. However, a sentence cannot be true unless its sub-expressions succeed in doing what they purport to do. Thus, there must exist abstract mathematical objects which these expressions refer to and quantify over.

In a similar way, we can posit that possible worlds are abstract. Possible worlds might be non-spatiotemporal objects, but this is not a reason to say that they are not real. Further, we quantify over possible worlds just as we quantify over abstract mathematical objects. For example, in mathematics we might say that for any natural number \( n \), \( n \times 2 = n + n \), using the quantifier ‘any’ in this instance, signifying that we are quantifying over

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53 Some mathematical realists may want to say that abstract objects do stand in causal relations.

54 My formulation of Frege’s argument leaves out the details of his argument, but should suffice for our purposes. See Gottlob Frege, *Foundations of Arithmetic*, Transl. by J.L. Austin Oxford: Blackwell, 1953.
all of the natural numbers. Our quantifiers are different when talking about possible worlds, i.e. we use ‘possibly’ and ‘necessarily’ instead of ‘all’ or ‘some’, and we can make the same sort of argument that Frege used for mathematical realism for possible worlds.

Furthermore, the moral realist claims that moral facts or properties are real, but does not require concreteness as an aspect of his argument. There are both reductionist and non-reductionist forms of moral realism. The former holds that moral facts or properties are reducible to non-moral facts or properties. For example, some moral realists hold that moral properties are reducible to natural properties. The latter holds that moral facts or properties are themselves non-reducible natural facts or sui generis properties.

Nicholas Sturgeon takes himself to be a non-reductionist. Although he does believe that moral properties supervene on natural properties, he claims that we have good reason to think that there are moral facts or properties because moral facts play an ineliminable explanatory role in our moral judgments.\textsuperscript{55} That is, moral facts or properties figure ineliminably in the best form of explanation that we have for our moral judgments. As such, we have the same kind of reason to believe in the existence of moral facts as we have to believe in protons. For example, a physicist concludes from his observation of a vapor trail in a cloud chamber that a beta particle has passed through the chamber. He accepts a theory according to which a beta particle would cause a vapor trail in a cloud chamber. When he observes the vapor trail, his theory suggests that the existence of a

beta particle is the best explanation of why the vapor trail exists. This gives him a reason to believe that a beta particle exists.

To defend the claim that moral facts and properties are indeed real, Sturgeon offers an argument that parallels the one provided by the physicist. The idea is that if an act is wrong, it has the *sui generis* moral property wrongness that supervenes on some natural property. Sturgeon claims that, just as we have good reason to believe the beta particle exists, we have good reason to believe in the existence of moral facts and properties. For example, say that some hoodlums are seen in a back alley torching a cat with a blowtorch. Upon seeing the torching of the cat, most people will form the belief that the act is wrong. Sturgeon’s theory entails that the *best explanation* of the fact that most people believe that the act of torching the cat is wrong is that the act possesses some *sui generis* moral property. To defend the claim that moral facts and properties are indeed *real*, Sturgeon proposes the counterfactual question: is it true that, if the torching of the cat lacked the property wrongness, we would not have believed that the hoodlum’s act of torching the cat was wrong? Had the act not possessed the *sui generis* moral property, the act would also have differed with respect to the natural properties on which the moral properties supervene, and presumably, we would not have judged the act to be wrong.\(^5^6\)

Thus, it seems that the wrongness of an action does in fact play an explanatory role relevant to the forming of a belief that something is wrong. Without the act having the property of wrongness, we would not form the belief that torching the cat is wrong. This is not to say that anytime someone believes something to be wrong, it is wrong (e.g. the

\(^{56}\)This is presupposing the supervenience of moral properties upon non-moral properties.
fact that some people think that homosexuality is wrong does not make it so). Rather, something is wrong if it has the property wrongness. If the torching of the cat did not possess the property of being wrong, then we would not believe it to be wrong because the same observational evidence would not have obtained. Sturgeon concludes that the explanatory relevance of moral facts gives us reason to believe that moral properties are real.

Take the further example of Hitler. Sturgeon argues that the fact that Hitler was morally depraved explains his actions, e.g. the annexation and execution of anyone who was Jewish. Because of Hitler’s actions, I form the belief that Hitler was morally depraved. So, the fact that Hitler was morally depraved best explains why I believe that Hitler was morally depraved. My belief is not best explained (let us presume) by ignorance or prejudice here. Had he not been morally depraved, (presumably) he would not have killed millions of people, and thus I would not have formed the belief that Hitler was morally depraved. Hitler’s being depraved is crucial to the explanation of my belief. Again, moral facts are explanatorily relevant. So, Sturgeon provides reasons for holding a realist view about moral properties analogous to the reasons Frege held mathematical Platonism while simultaneously holding that moral properties are abstract entities.

Recall that Lewis uses a similar abductive argument to motivate his account of possible worlds. Just as Sturgeon argues for moral realism on the basis that moral properties figure ineliminably into our best moral theory, Lewis argues for his modal realism on the basis that concrete possible worlds figure ineliminably into the simplest

57 See Sturgeon, pg. 232.
theory of analyzing modality, properties, propositions, and the truth conditions for counterfactual conditionals. While Lewis argues that postulating non-concrete, purely ersatz worlds would not allow for an equally parsimonious analysis of modality, properties, etc., some may question the cogency of his arguments. It is equally evident from the previous discussion about that the postulation of certain types of abstract entities, e.g. moral properties, mathematical entities, etc., can function in *prima facie* cogent abductive arguments that support realist views with respect to those entities. As such, the various reasons Lewis offers for postulating concrete possible worlds do not give us reasons to think that any version of realism about possible worlds would require that the worlds be concrete rather than abstract.

While I do not take concreteness to be a necessary criterion for moral realism, views according to which possible worlds are concrete can nonetheless satisfy the criteria for realism about possible worlds that I will identify.

### 4.3 Mind-Independence

We are now in a position to delineate the criteria for modal realism. Many varieties of realism seem to involve a mind-independence claim, and so I will now explore whether or not we should require the following for modal realism:

**MR1:** Possible worlds must exist independently of minds.

Scientific realism is a type of realism that plausibly involves an analogue of MR1. Discussions of scientific realism usually occur in the context of a debate about the most adequate ways of interpreting our scientific theories that postulate unobservable entities,
processes, properties, etc.\textsuperscript{58} Scientific realists posit that entities to which our scientific theories putatively refer, e.g. electrons, quarks, Higgs-Boson, are real entities that exist in the world quite independent of our theories, beliefs, etc. For instance, Stathis Psillos ties scientific realism to a “mind-independent natural-kind structure” of the world.\textsuperscript{59} Scientific realism is committed to the literal interpretation of scientific claims—that is, sentences that seem to refer to unobservable objects, properties, etc. really do refer to such objects, properties, etc. But, scientific realism generally involves more than this—it involves the claim that such objects, properties, etc. exist independent of our theories, beliefs, desires, conscious experiences, etc. about and involving them. Hence, scientific realism commonly involves a mind-independence criterion.

Not all forms of realism require a mind-independence condition. One form of realism that plausibly does not require mind-independence is moral realism. I have already mentioned Sturgeon’s account of moral realism. On Sturgeon’s non-reductive moral realism, rightness and wrongness seem to supervene on the purposive actions of creatures with minds. In a world in which there were no creatures with minds, there would be nothing that counted as morally right or wrong. Peter Railton’s account of moral realism differs in that it is a reductionist account; that is, on his view moral

\textsuperscript{58} Many debate what is meant by the terms, ‘observable’ and ‘unobservable.’ One position which realists subscribe to is found in Grover Maxwell, "The Ontological Status of Theoretical Entities", Feigl and Maxwell Scientific Explanation, Space, and Time vol. 3, Minnesota Studies in the Philosophy of Science, 1962, pg. 3-15. Maxwell argues that there is a continuum between observable and unobservable entities so that we cannot discern the difference between the two. Furthermore, unobservable aspects are unobservable to us, but this is contingent on human physiology. For instance, the human eye developed in a particular way. Had the human eye developed differently, a different range of entities would have been observable. It is because of factors such as these that we cannot demarcate observable entities from unobservable entities.

rightness can be reduced to something more basic. He posits that moral realism can be derived from his account of non-moral value. Non-moral value is “the notion of something being desirable for someone, or good for him.” The idea is that what is desirable for someone is what his ideal self would want his non-ideal self to want in particular circumstances. Railton states:

Give to an actual individual A unqualified cognitive and imaginative powers, and full factual and nomological information about his physical and psychological constitution, capacities, circumstances, history, and so on. A will have become A+, who has complete and vivid knowledge of himself and his environment, and whose instrumental rationality is in no way defective. We now ask A+ to tell not what he currently wants, but what he would want his non-idealized self A to want—or, more generally, to seek—were he to find himself in the actual condition and circumstances of A.

We can call this the “full information analysis” of what is good for a person. Railton further notes that a naturalistic realism must include two characteristics, one of which he labels an independence condition:

(1) independence: it exists and has certain determinate features independent of whether we think it exists or has those features, independent, even, of whether we have good reason to think this.

Railton’s independence condition involves independence of our actual beliefs and desires but not independence of our ideal desires or wants. Desires and wants (ideal or otherwise) depend on the existence and workings of minds. The concepts of information, facts

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61 Ibid., pg. 173-174.
62 Ibid., pg. 172.
possessed, and instrumental rationality are likewise mentalistic concepts. Railton’s account involves the concept of something like ideal desirability, but in a world without minds, there are no desires. As such, in a world in which there were no creatures with minds, there would be nothing that counted as morally right or wrong. Again, moral realism would not seem to involve an analogue of MR1.

I believe that like scientific realism, but unlike moral realism, modal realism should involve a mind-independence condition, i.e. MR1. This is because the types of entities, properties, etc. involved in modality are, like scientific entities, properties, etc., the sort of thing that plausibly could exist were there no minds, whereas moral properties, etc. are not.

4.4 Possible worlds as representations

As Lewis defines it, an ersatz view is one according to which possible worlds are representations—they are representations of the way things are or could be. Lewis contrasts his modal realism with modal ersatzism according to which possible worlds are representational. In this section I will explore whether or not we should agree with Lewis in adopting the following:

MR2: Possible worlds must not be merely representational.

I think that we should accept that, to be a modal realist, one must have more than a representational account of possible worlds. Just as a painting of the Cascade Mountains is not really the Cascade Mountains, representational accounts of possible worlds are not
really possible worlds. This is essentially Lewis’s criticism of pictoral ersatzism.\(^63\)

Possible worlds on a pictoral ersatzist account represent possibilities much as a picture represents possibilities. Lewis objects to this by pointing out that a representation of a possible situation is not itself a possible situation (it is an actual representation).

Further, take the linguistic ersatzist. The linguistic ersatzist holds that possible worlds are representations in the same way that sentences or sets of sentences (more specifically, maximal consistent sets of sentences) are representations. We can think of a possible worlds as world-books or maximal complete stories.\(^64\) For example, possibly a donkey talks if and only if we have the sentence ‘A donkey talks’ contained in some world-book that represents a world in which a donkey talks.\(^65\) Possible worlds are not real worlds or real ways a world might have been on the linguistic ersatzist account. What they really are are sets of sentences. While genuine possible worlds and other genuine modal entities could be used as representations in some symbol system, it seems plausible, for reasons that Lewis proposes, to claim that possible worlds cannot be mere representations if we want to be realists about them.

### 4.5 Is Stalnaker a realist?

My tentative proposal is that realism about modality involves both MR1 (the mind independence condition) and MR2 (the non-representational condition). Lewis clearly counts as a modal realist under my proposed criteria—on his account, possible worlds exist mind-independently and are non-representational. In determining whether or not

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\(^63\) *On the Plurality of Worlds*, pg. 165-166.


\(^65\) This is assuming that our world-language is English. See Lewis's *On the Plurality of Worlds*, pg. 142.
Stalnaker is a modal realist under the criteria I have set above, we need to distinguish between two different cases: (1) possible worlds that involve only actual objects and properties; and (2) possible worlds containing merely possible objects or properties. I will consider these in order.

First, is Stalnaker a realist when considering possible worlds containing only actual objects and properties? Consider the proposition ‘Kripke is fifty feet tall’. Kripke obviously is not fifty feet tall, but we can say that there is a possible world in which Kripke is fifty feet tall. Recall that possible worlds according to Stalnaker are maximal properties of the total universe. The actual world just happens to be the property that is instantiated by the total universe. However, Stalnaker goes on to equate possible worlds with propositions. How are possible worlds both properties and propositions? You will recall that, if a proposition is a truth condition—the world’s being such and such a way—then it is a species of property. So, the maximal properties that are possible worlds are at the same time maximal truth conditions and so are maximal propositions. We can thus say that there is a property that includes Kripke’s being fifty feet tall or a proposition that entails that Kripke is fifty feet tall. Kripke actually exists and the property of being fifty feet tall actually exists. As such, the singular proposition that Kripke is fifty feet tall exists. So, a possible world that differs from the actual world only in the ways necessary to entail this proposition exists.

In terms of possible worlds that involve only actual objects and actual properties/relations, does Stalnaker adhere to both the independence and non-representational criteria I have described above? The short answer is ‘yes’. These
maximal propositions that are possible worlds containing actual objects and properties exist independently of any agent’s thoughts, beliefs, feelings, etc. So, according to Stalnaker, properties of the total universe (whether instantiated or not) are mind-independent. Further, Stalnaker’s theory of possible worlds as properties also entails that possible worlds are something other than representations. For example, the property blueness is not merely a representation, nor is squareness. Either can be used to represent something, but neither is in and of itself a representation. Further, the maximal properties that Stalnaker claims are possible worlds are not merely representations of ways the total universe might be. Rather, they genuinely are ways the total universe might be. Hence, when considering possible worlds containing actual objects and properties, Stalnaker’s account of possible worlds adheres to the criteria I set above.

However, we must now consider how Stalnaker handles modal statements about merely possible objects. The problem is that, according to Stalnaker, merely possible objects do not exist, and thus, singular propositions about merely possible objects do not exist. To solve this problem Stalnaker introduces his model. The model’s purpose is to represent the merely possible objects and the worlds that contain merely possible objects. The idea is that we still want sentences about merely possible objects to have truth conditions. If singular propositions about merely possible objects do not exist, and propositions are truth conditions on Stalnaker’s account, then how can we make sense of the fact that sentences about possible objects have truth conditions? Stalnaker introduces his model to account for such truth conditions.

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66 See above chapter 3, pg. 36.
But the fact that Stalnaker is able to impose a model to account for the truth conditions of sentences about merely possible objects, does not qualify him as a realist about possible worlds containing such objects. To flesh this out, consider the example of Kripke’s seventh son. Stalnaker claims that we can give truth conditions for the sentence ‘Possibly Saul Kripke has seven sons’ without committing ourselves to the existence of a person that is Kripke’s seventh son. The proposition (call it K) that entails that Kripke does have seven sons is only contingently maximal. Since Kripke does not in fact have seven sons, the proposition that would be expressed by a sentence of the form ‘x is Kripke’s seventh son’ does not exist. So, there is no existing possible world in which Kripke has a seventh son.

Possible worlds entailing singular propositions about merely possible objects do not exist. Instead worlds containing merely possible objects are represented by points on Stalnaker’s model that determine a finer grain partitioning of logical space than the resources of the actual world would allow. The points on Stalnaker’s model are clearly mere representations. Thus, if we take the points to be possible worlds as Stalnaker does, we run afoul MR2.\(^{67}\) The maximal properties of the total universe that would be worlds containing merely possible objects would not be mere representations. However, these do not exist and so do not exist independently of minds, thereby running afoul MR1. Consequently, when it comes to possible worlds containing merely possible objects, Stalnaker does not qualify as a realist.

\(^{67}\) Note that taking the points to be possible worlds also fails to satisfy MR1 since the points only represent possible worlds because of the role they play in the model and the model itself is mind-dependent.
4.6. Conclusions

What I have proposed is that both MR1 and MR2 are necessary conditions for modal realism, and that the conjunction of MR1 and MR2 is plausibly sufficient for modal realism. However, I have proposed that concreteness is not required.

When restricted to possible worlds containing only actual objects and actual properties, Stalnaker’s view satisfies my criteria for modal realism. However, when it comes to possible worlds containing merely possible objects and/or merely possible properties, it does not. So, the question is whether his view when considered in its entirety should be taken to be a realist view. I am inclined to say ‘no’, Stalnaker’s view does not count as realist, but it is far from clear whether this is correct. After all, Stalnaker might arguably be justified in calling himself a modal realist given that his view allows for a multitude of possible worlds thought of as properties of the total universe that are not merely representations and that exist independently of minds. However, one could argue that, on my criteria, Stalnaker’s view should not count as a realist view in that, in order to account for statements involving non-actual objects, his view involves a multitude of possible worlds that are mere representations.

Contrast Stalnaker’s view about modality with a view that accepts much of what Stalnaker wants to say about modality but does not accept his view that singular propositions are object dependent. Such a view would allow that all of the relevant maximal propositions exist even while sharing Stalnaker’s actualist metaphysics: only actual objects exist. This view seems to be realist given the criteria I suggested in this chapter. We can still claim that possible worlds are properties, and the actual world is the
property that has been instantiated. Further, we can still follow Stalnaker in his claim that propositions are a subspecies of properties. The difference is that we no longer need his model to account for merely possible objects. Stalnaker needed the model because his account of singular propositions depends on the objects that they refer to. However, on an account that rejects the idea that singular propositions are object dependent, we do not need to worry about violating the actualist metaphysic when accounting for propositions about merely possible objects.

So, the question now becomes: is the difference between Stalnaker’s view and this new view one that is sufficiently stark to warrant holding that Stalnaker’s view does not count as realist about possible worlds whereas this new view does? It seems plausible to claim that it is. Stalnaker’s downfall stems from his account of propositions and the need for his model. On this new account we need not posit any such model. Further, possible worlds are still properties that exist in the total universe. However, this new account does not require that we posit points that partition logical space to represent worlds. Possible worlds on this new account are not dependent on minds nor are they merely representational. Thus, the new account satisfies MR1 and MR2.\textsuperscript{68}

\textsuperscript{68}This "new account" is obviously incomplete in detail and is meant to serve as a starting point for further investigation.
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