Haecceitism for Modal Realists

Sam Cowling

Forthcoming in *Erkenntnis*

Abstract

In this paper, I examine the putative incompatibility of three theses: (1) *Haecceitism*, according to which some maximal possibilities differ solely in terms of the non-qualitative or *de re* possibilities they include; (2) *Modal correspondence*, according to which each maximal possibility is identical with a unique possible world; (3) *Counterpart theory*, according to which *de re* modality is analyzed in terms of counterpart relations between individuals. After showing how the modal realism defended in Lewis (1986) resolves this incompatibility by rejecting modal correspondence, I defend modal correspondence and develop an alternative strategy for reconciling these theses. Specifically, I examine Lewis's arguments against non-qualitative counterpart theory and undermine them by developing a novel version of non-qualitative counterpart theory that appeals to a metaphysics of bare particulars. I then indicate how this version of non-qualitative counterpart theory accommodates both haecceitism and modal correspondence.

1 Introduction

Let me begin by introducing three theses. The first of these is *haecceitism*:

- (1) Haecceitism: Some maximal possibilities differ only in terms
- of the non-qualitative possibilities they include.

Haecceitism concerns the relation between qualitative and non-qualitative possibilities.¹ It holds that some maximal possibilities—intuitively, total

¹For discussion, see Skow (2008) and Lewis (1986).

ways for things to be—agree in all qualitative respects yet differ in some nonqualitative respect. For convenience, we can call these kinds of differences between maximal possibilities "haecceitistic differences."

The case for haecceitism is strong. Consider a possibility according to which there is only an infinite homogeneous plane and a homogeneous cylinder, located somewhere on the plane. Suppose that the cylinder eventually topples over. Intuitively, there are many directions in which the cylinder could fall, but, since these possibilities agree in all qualitative respects, they are separated only by a haecceitistic difference. So, given that there are many ways the imagined cylinder could fall, a commitment to haecceitism follows: some maximal possibilities differ without differing qualitatively.²

Our second thesis, *modal correspondence*, is a natural consequence of the view that modality is properly analyzed in terms of possible worlds:

(2) Modal Correspondence: Each maximal possibility is identical with or represented by some unique possible world.

The case for modal correspondence is strong, but less straightforward than the case for haecceitism. While I defend modal correspondence at length in Section Two, it will be useful to mark one important role of modal correspondence: providing an account of logical space in terms of possible worlds.

To understand this account of logical space, we can begin by envisioning logical space as a field. Each region of this field is a possibility. Pointsized regions are maximal possibilities. Extended regions are non-maximal possibilities like the possibility that trees sprout leaves. The possibility that trees sprout leaves is therefore identified with that region of logical space that includes every point (i.e, maximal possibility) according to which trees sprout leaves. In addition, any necessary truth is identified with the maximal

²This case is drawn from Melia (2003). Haecceitism can also accommodates more controversial modal commitments. For example, if there is a maximal possibility according to which Bush and Obama "swap" their actual qualitative profiles (i...e., the set of all their actual qualitative properties), haecceitism follows. Similarly, if there is a possible world where an individual has every qualitative property you actually do, but you nevertheless fail to exist, haecceitism would also follow.

region of logical space.³

We can now introduce possible worlds into our account of logical space. We begin by identifying maximal possibilities with possible worlds. From there, we can identify non-maximal possibilities with sets of possible worlds. In this way, possible worlds furnish us with a metaphysical reduction of maximal possibilities. Furthermore, this reduction allows us to model a broad range of logical concepts like entailment in terms of possible worlds. A pre-requisite for this reduction is, however, the precise one-to-one correspondence guaranteed by modal correspondence.

The third and final thesis is counterpart theory, which is a thesis about the representation of $de \ re$ possibilities for individuals. Counterpart theory denies that individuals have their $de \ re$ modal properties by virtue of being numerically identical across possible worlds. Instead, counterpart theory holds that there is some class of relations—counterpart relations—that determine the $de \ re$ possibilities for an individual.⁴ For example, counterpart theory holds that Herman is possibly a scrimshander if and only if there is some individual that is a counterpart of Herman that is a scrimshander.

(3) **Counterpart Theory**: The *de re* possibilities for an individual are to be analyzed in terms of its counterpart relations.

Counterpart theory is a natural commitment for any view of possible worlds that denies the numerical identity of individuals across possible worlds. ⁵ (For the modal realist views under consideration here, the Argument from Accidental Intrinsics motivates the denial of identity across worlds. See Section Four for discussion.) For this reason, the most familiar version of counterpart theory is part of a package deal: Lewisian Modal

 $^{^{3}}$ See Cowling (2011) for discussion of the varieties of haecceitism and its relation to the metaphysics of logical space.

⁴See Lewis (1968), (1971), and (1986) for the development of counterpart theory.

⁵For present purposes, I set aside an alternative account of *de re* representation: the modal analogue of four-dimensionalism, which holds that individuals are partly located at distinct possible worlds and have their *de re* modal properties by virtue of the properties instantiated by their modal rather than temporal parts. See Lewis (1986: 210-220) for discussion.

Realism (hereafter, *LMR*). According to LMR, the possible worlds used to analyze modality are cut from the same ontological cloth as the actual world. They are concrete, qualitatively determinate, maximal spatiotemporally related objects. Furthermore, LMR denies that any possible object is a part of more than one of these worlds. So, in order to make sense of *de re* modality, the proponent of LMR turns to a particular version of counterpart theory:

 (3^*) Qualitative Counterpart Theory: The *de re* possibilities for an individual are to be analyzed in terms of its qualitative resemblance relations.

According to qualitative counterpart theory, counterpart relations are exclusively qualitative relations. As a consequence, LMR offers a reduction of *de re* modality: facts about counterpart relations and, in turn, *de re* modality reduce to facts about qualitative resemblance between individuals.

The role of qualitative resemblance relations within LMR raises difficult questions about the distinction between qualitative and non-qualitative properties and relations. Typically, this distinction is marked by the characteristic dependence of non-qualitative properties and relations like *being Saul Kripke* or *being taller than David Kaplan* on specific individuals.⁶ Alternatively, some have argued that qualitative properties like *being an electron* or *having seven grams mass* are distinguished by their supervenience upon perfectly natural properties.⁷ Here, I will remain neutral on how, if at all, the qualitative/non-qualitative distinction can be analyzed. Even so, I will assume the distinction to be sufficiently well-understood.

Qualitative counterpart theory has interesting implications. Perhaps most notably, since counterpart relations are relations of qualitative resemblance, no qualitatively indiscernible individuals can differ with respect to the counterpart relations they stand in or the *de re* possibilities they represent. So, if there are any qualitatively indiscernible possible worlds, such

⁶For example, Hawthorne (2006: 8) says "[H]aecceitistic properties—such as being identical to John or being the daughter of Jim—are those which, in some intuitive way, make direct reference to a particular individual(s)."

⁷See Bricker (2006).

worlds cannot differ with respect to the *de re* possibilities they represent. As Lewis sometimes puts the point: what *de re* possibilities a world represents supervenes upon the qualitative character of that world.

The three theses introduced above are in tension with one another. Suppose, following Lewis, that defenders of counterpart theory ought to accept qualitative counterpart theory. Granted this supposition, we can show that if one accepts haecceitism and counterpart theory, she must reject modal correspondence. The argument for this conclusion runs as follows: Suppose that qualitative counterpart theory is true, so, if any worlds agree in all qualitative respects, they represent the very same de re possibilities. Further suppose the defender of counterpart theory who accepts haecceitism wanted to hold each maximal possibility to be represented by a unique possible world. Since some maximal possibilities differ haecceitistically, the possible worlds that represent these maximal possibilities will be qualitatively indiscernible. But, if these possible worlds are qualitatively indiscernible, counterpart theory requires that they represent the very same possibilities. For this reason, the defender of counterpart theory cannot employ qualitatively indiscernible worlds to uniquely represent distinct maximal possibilities. She must therefore abandon haecceitism or modal correspondence.

For Lewis, the choice is easy. Haecceitism and qualitative counterpart theory stay; modal correspondence goes. That said, this presents a challenge for Lewis and other counterpart theorists who accept haecceitism. They must now accommodate maximal possibilities separated by haecceitistic differences solely in terms of qualitative counterpart relations. Lewis outlines his treatment of haecceitistic differences as follows:

To illustrate, consider these two possibilities for me. I might have been one of a pair of twins. I might have been the firstborn one, or the secondborn one. These two possibilities involve no qualitative difference in the way the world is.... I say: two possibilities, sure enough. But they are two possibilities within a single world. The world in question contains twin counterparts of me. Each twin is a possible way for a person to be, and in fact is a possible way for me to be. I might have been one, or I might have been the other. These are two distinct possibilities for me. But they involve only one possibility for the world: it might have been the world inhabited by two such twins.⁸

For the defender of LMR, haecceitistic differences are accommodated by allowing individuals to have more than one counterpart in a given possible world. In this way, Lewis multiplies the number of counterparts rather than qualitatively indiscernible worlds and thereby sustains the desired reduction of *de re* modality to facts about qualitative resemblance.⁹

To accommodate the twin case, Lewis holds that he has both twins as his counterparts under a certain qualitative counterpart relation, R. According to R and the world in question, the eldest twin represents the possibility according to which Lewis is the eldest twin. And, also according to R and the world in question, the youngest twin represents the possibility according to which Lewis is the youngest twin. The idea here is that possibilities are represented by pairings of individuals with counterpart relations and, although there is only one relevant qualitative counterpart relation, R, it can be paired with either of the twins. As a consequence, counterparts like the twins occupy a single world, but, in concert with the rest of their world, represent maximal possibilities that differ haecceitistically. The world inhabited by the twins thereby represents both the maximal possibility where Lewis is the firstborn twin and the maximal possibility according to which he is the secondborn twin. Because of this, maximal possibilities outstrip possible worlds, and any given world will represent myriad maximal possibilities that differ haecceitistically.

While the preceding provides some sense of LMR's treatment of haecceitism, it is important to be clear about what distinguishes qualitative counterpart theory from the non-qualitative versions of counterpart theory Lewis hopes to avoid. To do so, consider the world of Castor and Pollux, two

⁸Lewis (1986: 231).

⁹Here and throughout, I follow Black (1952) in rejecting the Principle of the Identity of Indiscernibles for individuals. Since I will be primarily concerned with those views according to which worlds are maximal individuals, I also reject the Principle of the Identity of Indiscernibles as it concerns worlds.

qualitatively indiscernible spheres. According to this world, there are least three possibilities for the actual individual, Obama. He could be Castor, Pollux, or both Castor and Pollux. Let us assume, furthermore, that these possibilities are given by the maximally general counterpart relation, R^* , that holds between any objects whatsoever. We can now represent these distinct possibilities as follows:

Possibility 1: <Obama, Castor, R*> Possibility 2: <Obama, Pollux, R*> Possibility 3: <Obama, {Castor, Pollux}, R*>

Distinguishing between these qualitatively indiscernible possibilities is consistent with qualitative counterpart theory, since no non-qualitative counterpart relation has been introduced. What is *inconsistent* with qualitative counterpart theory is the introduction of some counterpart relation, R^{**} , that holds between Obama and Castor, but does not also hold between Obama and Pollux. Properly understood, a commitment to non-qualitative counterpart theory is just a commitment to at least one counterpart relation that divides qualitative indiscernible individuals like Castor and Pollux. So, in its most general form, non-qualitative counterpart theory is the following thesis:

 (3^{**}) Non-Qualitative Counterpart Theory: The *de re* possibilities for an individual are to be analyzed in terms of its counterpart relations and at least some of these counterpart relations are non-qualitative.

In what follows, my aim is to develop and defend a novel version of nonqualitative counterpart theory. In doing so, I will provide a way to reconcile haecceitism, modal correspondence, and counterpart theory within the framework of modal realism. In Section Two, I begin by defending modal correspondence. In Section Three, I consider Lewis' objections to non-qualitative counterpart theory. In Sections Four and Five, I present a version of non-qualitative counterpart theory, according to which counterpart relations are analyzed in terms of distinct individuals sharing a common bare particular. I then argue that the resulting metaphysics of bare particulars overcomes Lewis' objections to non-qualitative counterpart theory and accommodates both haecceitism and modal correspondence. In Section Six, I consider objections to the proposed view. I conclude in Section Seven.

Before proceeding, let me make explicit three assumptions: (i) modal realism, according to which possible worlds are concrete, qualitatively determinate, maximal sums of spatiotemporally related individuals; (ii) haecceitism, which, as shown above, enjoys strong support from our modal intuitions; (iii) the existence of qualitatively indiscernible worlds. This final assumption is needed to secure modal correspondence, given haecceitism. That said, I also hold the following to provide an argument for belief in qualitatively indiscernible worlds, since they secure theoretical virtues for the modal realist by sustaining modal correspondence.¹⁰

2 The Case for Modal Correspondence

In this section, I present the case for modal correspondence. Above, I sketched the reduction of logical space—the space of possibilities—to possible worlds. This reduction identifies possibilities, maximal and otherwise, with sets of possible worlds in much the same way semantic theory reduces extensions of predicates to sets of individuals. This reduction of logical space to possible worlds is unavailable if modal correspondence is rejected. On the one hand, if there are no qualitatively indiscernible worlds, maximal possibilities will simply outstrip possible worlds and preclude the required one-to-one correspondence. On the other hand, even if there are qualitatively indiscernible worlds, the identification of a given maximal possibility with a possible world will be an arbitrary matter, since any other qualitatively indiscernible world would be an equally good candidate. The preser-

¹⁰Lewis is agnostic on the existence of qualitative indiscernible worlds. See Lewis (1986: 224) and Lewis (2003: 26). Since my present defense of modal correspondence secures theoretical benefits for the modal realist, I take Lewis to be mistaken.

vation of this reduction is, therefore, the first reason in favour of modal correspondence.

A second reason for accepting modal correspondence emerges from the theoretical unifications and simplifications it allows. If we treat abundant properties as sets of individuals, we can unify our metaphysics of properties and propositions. Granted modal correspondence, all propositions—even *de se* propositions—can be identified with sets of possible worlds and, since possible worlds are individuals, propositions prove to be mere properties of maximal individuals. But, as Lewis (1979) points out, if we reject modal correspondence by accepting LMR, we are forced to treat certain *de se* or "centered" propositions as ordered pairs of individuals and worlds, since no possible worlds will differ non-qualitatively. This precludes the appealing unification and generalization of our property and propositions motivate a view on which uncentered propositions rather than centered propositions are needed to represent haecceitistic differences between possible worlds:

By requiring that ignorance and doubt always be represented by distinctions between possible states of the world, we allow for the calibration of the states of belief of different believers, and of a believer at different times. Even though belief states are represented by sets of centered possible worlds, the contents of belief can be taken to be ordinary propositions—sets of uncentered possible worlds... By taking the contents of belief to be (uncentered) propositions, we can straightforwardly compare the beliefs of different subjects, and we can model the way assertions change the context in a straightforward way.¹¹

A third reason emerges from considerations of conservatism and simplicity. This reason is outlined by Lewis as follows:

¹¹Stalnaker (2007: 69-71). Note that a commitment to uncentered propositions of this sort does not preclude the employment of centered propositions for other theoretical purposes.

Is there any cost [to denying modal correspondence] at all? I think there is—simply the cost of making a break with established theory, on which all differences between possibilities are supposed to be differences between possible worlds. It is chaos if too many questions come open all at once, therefore theoretical conservatism is a good idea. There should be a presumption in favour of the incumbent theory, and against gratuitous substitutes.¹²

Lewis's point here is that LMR's denial of modal correspondence comes at the cost of disagreement with philosophical orthodoxy. Most notably, the ubiquitous slide between talk of possible worlds and talk of maximal possibilities is harmless if modal correspondence is true, but problematic if LMR is adopted. Any theory that sustains modal correspondence will therefore enjoy a virtue that LMR does not. This virtue of conservativeness and the more general virtue of elegance are a third reason to favour modal correspondence.

A fourth reason turns on the implementation of an actuality operator within LMR. As Graff Fara (2009) argues, supporters of LMR cannot successfully implement such an operator within their modal logic without delivering untoward results. In particular, Graff Fara holds that LMR validates implausible inferences about actuality by virtue of allowing a single possible world to represent distinct maximal possibilities. While I will not review Graff Fara's argument here, I take her remarks to express a kind of core intuition about the metaphysics of modality that counts in favour of modal correspondence and against LMR. It is this intuition that constitutes the fourth reason to explore the prospects for sustaining modal correspondence. In discussing the "cheap haecceitism" of LMR, Graff Fara says:

This brings to the fore the feature of Cheap Haecceitism that both gives it its power and ultimately betrays it. The betrayal comes when we realize that these possibilities must not be treated as actual, even though they are parts of the actual world.... [The

 $^{^{12}}$ Lewis (1986: 235).

Cheap Haecceitist] cannot coherently admit Haecceitistic possibilities while retaining the very essence of the theory of modality he shares with most of those who disagree with him: possibility is truth in some possible world.¹³

On their own, none of these considerations show that modal correspondence is sacrosanct. They suggest, however, that any possible worlds theory that preserves modal correspondence will enjoy certain virtues (e.g., conservativeness, elegance, and parsimony) its competitors do not. I take it that this feature of modal correspondence suffices to show that we ought to take seriously the project of developing an alternative to LMR that sustains modal correspondence. For this reason, I will now turn to the case Lewis offers against non-qualitative counterpart theory while bearing in mind that the denial of modal correspondence followed as a consequence of Lewis's commitment to qualitative counterpart theory. If we can undermine Lewis's arguments against non-qualitative counterpart theory, we are therefore well-positioned to reconcile haecceitism, modal correspondence, and non-qualitative counterpart theory.

3 Non-Qualitative Counterpart Theory

Lewis (1986) offers two arguments against non-qualitative counterpart theory. The first concerns the isolation and unification of worlds; the second concerns the intelligibility of non-qualitative counterpart relations. Since the second argument is the more challenging, I'll begin by briefly addressing the first argument.

3.1 The Isolation Objection

Lewis's first objection to non-qualitative counterpart theory turns on the isolation and unification of possible worlds. He argues:

I suggested that perhaps there are no natural external relations whatever between parts of different worlds; and that if so, we

 $^{^{13}{\}rm Graff}$ Fara (2009: 296).

could bypass the idea of 'analogically spatiotemporal' relations and say simply that worlds are unified by external interrelatedness. A non-qualitative counterpart relation would presumably sink that hope.¹⁴

To see whether this argument makes problems for non-qualitative counterpart theory, we need to clarify the distinction between external and internal relations. Following Lewis (1986), internal relations like *being a duplicate* of or *being taller than* supervene upon the intrinsic properties of their *relata*. External relations like *being five feet from* or *being earlier than* are not internal relations. As Lewis (1986: 62) puts it, an external relation "does not supervene on the nature of the composite of the *relata* taken separately, but it does supervene on the nature of the composite of the *relata* taken together." So, for example, a qualitative external relation like *is five feet from* will not supervene upon the individual intrinsic natures of its *relata*, but will nevertheless supervene upon the intrinsic nature of the mereological sum of its *relata* (e.g., whether the sum instantiates the property *being separated by five feet*).

Spatiotemporal relations are paradigmatic external relations and, for Lewis, it is spatiotemporal relations and "analogous" relations that unify worlds. Specifically, individuals, x and y, are worldmates if and only if each and every part of x is spatiotemporally related to each and every part of y. As Bricker (1996) argues, an attractive way to generalize Lewis's modal realism—a way that Lewis himself finds appealing—is to define the worldmate relation in terms of external relations rather than spatiotemporal relations and their analogues. The worry Lewis raises here is that, if there are non-qualitative counterpart relations, they would be external and, therefore, inconsistent with this attractive generalization.

The non-qualitative counterpart theorist has a plausible response to the charge that the isolation of worlds is jeopardized by non-qualitative counterpart relations: accept the generalization but define the unification and isolation of worlds in terms of *qualitative* external relations like spatial, tem-

 $^{^{14}}$ Lewis (1986: 230).

poral and spatiotemporal relations. This response squares well with the onus Lewis places upon natural properties and relations, which are *ex hypothesi* qualitative in nature. So, granted this amendment, there is little reason to worry that non-qualitative counterpart theory threatens either the general commitments of modal realism or its treatment of the isolation or unification of worlds. Having addressed the warm-up Isolation Objection, we can now turn to the more substantial Intelligibility Objection.

3.2 The Intelligibility Objection

The Intelligibility Objection purports to show that no form of non-qualitative counterpart theory is intelligible. This is a strong claim, but one that Lewis relies upon in his defense of LMR and qualitative counterpart theory.¹⁵ He says, for example, that "there is no way to make sense of a non-qualitative counterpart relation."¹⁶ It is for this reason that Lewis develops LMR "without buying into any mysterious non-qualitative aspects of worlds".¹⁷ What is it, then, that rules out any satisfactory form of non-qualitative counterpart theory? To answer this question, let me quote Lewis's case against the view at length:

I ask what the non-qualitative determinants of representation *de re* are, and how they do their work.... But *any* two things stand in indefinitely many relations, share infinitely many properties, and are both included as parts of infinitely many sums... Perhaps the haecceitist thinks that some of all these relations or properties or sums are somehow special, and he means to speak only of the special ones. (Perhaps he also thinks that only the special

¹⁵It is worth noting that the acceptance of non-qualitative counterpart theory does not preclude a reduction of modality, since the distinction between the categorical and the modal cross-cuts the distinction between the qualitative and the non-qualitative. For example, facts about the identity of individuals are plausibly viewed as categorical albeit non-qualitative. That said, one might object that, if necessary, identity facts are therefore modal. Against this objection, I take it that many facts hold of necessity even while they are paradigmatically categorical (e.g., the fact that there are no round squares).

¹⁶Lewis (1986: 230).

¹⁷Lewis (1986: 230).

ones exist.) Then he must tell me which of all the relations and properties and sums I believe in are the special ones. He cannot say that the special ones are the ones that carve along the qualitative joints; that I can understand, but that does not meet his need to single out some of all the ones that *don't* carve along the joints. He must avoid circularity. I do not think he can answer me. If he cannot, he leaves it entirely mysterious what it could mean to say that things were non-qualitative counterparts.¹⁸

From this passage, two features are clear. First, Lewis's argument does not turn on a denial of non-qualitative properties. As he says elsewhere, he readily accepts that there are non-qualitative properties and relations.¹⁹ The problem with non-qualitative counterpart theory is, therefore, not the existence of non-qualitative properties or relations, but their employment within counterpart theory. Second, Lewis's argument presents the proponent of non-qualitative counterpart theory with a challenge. Given the plurality of non-qualitative properties and relations, he must single out some among them to serve as the counterpart relations in terms of which *de re* modality is to be understood.

According to Lewis, the problem that non-qualitative counterpart theory faces is the inability to distinguish, from the plurality of properties and relations, the special class relevant for counterpart theory. This problem is the crux of Lewis's argument against non-qualitative counterpart theory. Without distinguishing the special properties or relations, the non-qualitative counterpart theorist has no theory of *de re* representation. As such, nonqualitative counterpart relations are mysterious. They may be stipulated to accomplish the task of *de re* representation, but we are without any clue as to how they do so. Rightly, Lewis finds this untenable.

There are two avenues of response to the problem Lewis poses. The first response denies the demand that some special class of properties or relations be singled out as special. Instead, each and every relation is accepted as a genuine counterpart relation. And, since every relation accomplishes the

¹⁸Lewis (1986: 229)

¹⁹Lewis (1986: 232).

task of *de re* representation, nothing needs to be said about which ones are distinguished, special relations.

This line of response is not promising. Not all relations can be counterpart relations, since counterpart relations have distinctive logical features (e.g., non-transitivity, non-symmetry). And, of the relations with the appropriate logical features, some relate individuals to entities that are not remotely plausible counterparts. For example, there will be an abundance of relations with the logical features of counterpart relations that hold between you and, say, pure sets or "impossible" mereological sums of individuals drawn from distinct possible worlds. It seems, then, that this response requires singling out an elite class of counterpart relations after all. But, since this response is motivated by the view that counterpart relations are extremely cheap, it either delivers absurd results or collapses into a view on which counterpart relations are indeed special sorts of relations.

Fortunately, there is a second response to Lewis's argument. This line of response accepts the problem posed as genuine and aims to solve it by providing some non-qualitative relations that can underwrite counterpart theory. I turn to this response in what follows.

4 Bare Particulars with Overlap

In the next two sections, I aim to overcome Lewis's argument against nonqualitative counterpart theory, and develop a version of non-qualitative counterpart theory that reconciles haecceitism, modal correspondence, and counterpart theory. In doing so, I help myself to certain metaphysical assumptions. And, while these assumptions are controversial, I take the following to provide evidence in their favor insofar as they afford the possibility of reconciling the theses in question.

I begin by assuming the truth of universal theory. Universal theories can be divided in at least two ways.²⁰ The first division concerns the multiplicity of universals. *Sparse theories* hold that, of the world's properties, only an elite few are universals. In contrast, *abundant theories* hold that every (or at

²⁰See Lewis (1986) for discussion of these distinctions.

least most) predicates express universals. The second division concerns the ontological status of universals. Aristotelian theories hold that universals are immanent or *in re*. They are located wherever they are instantiated and are, in some sense, parts of the material world. In contrast, *Platonist theories* deny the immanence of universals. They hold universals to exist outside of space and time, lacking any location in the concrete world. For present purposes, I will assume the Sparse Aristotelian version of universal theory.

Along with universal theory, I assume the truth of substratum theory. Substratum theory concerns the ontological status of particulars. It holds that universals are one of two ontological categories that make up particulars. On such a view, ordinary objects, which we can call "thick particulars", have universals as well as "thin" or "bare particulars" as their non-spatiotemporal parts, and these entities are unified by a fundamental relation of instantiation.²¹ Substratum theory stands in opposition to *bundle theory*, which favors a one-category ontology of particulars as maximal fusions of compresent universals, and *primitivism*, which denies particulars have any internal metaphysical structure whatsoever.

According to substratum theory, ordinary objects—the referents of natural language—are thick particulars. Thick particulars have two kinds of non-spatiotemporal parts: universals and bare particulars. Substratum theorists conceive of the relation between thick and bare particulars in different ways. For some substratum theorists, the identity of the bare particular determines the identity of the thick particulars, so any thick particulars with a common bare particular are identical.²² On the version of substratum theory I assume here, the identity of bare particulars does not determine the identity of the thick particular it is a constituent of.²³ Bare particulars primary ontological role is therefore to anchor the distribution of universals

 $^{^{21}}$ On substratum theory and bare particulars, see Bailey (2012), Denkel (2000), Giberman (forthcoming), Moreland (1998, 2001), and Sider (2006).

 $^{^{22}}$ See Bailey (2010) and Moreland and Pickavance (2003) on this distinction.

 $^{^{23}}$ Denkel (2000: 432) argues that this version of substratum theory is either inadequate or collapses into the former version. Here, I assume, *pace* Denkel, that sameness of bare particulars is a necessary but not sufficient condition for the identity of thick particulars.

rather than to serve as locus of metaphysical individuation. As a result, this version of substratum theory also ensures that, unlike the sharing of haecceities, the sharing of bare particulars across possible worlds does not guarantee the identity of thick particulars.

On the present version of substratum theory, bare particulars play their ontological role by virtue of the fundamental tie they bear to universals. This fundamental tie is the relation of instantiation, but talk of thick particulars' "instantiation" of universals requires explanation. In particular, the present theory treats talk of "instantiation" to be ambiguous between the relation between a bare particular and universals and a thick particular and universals. These relations are very different.

The tie between a thick particular and a universal is an internal relation. Since the universal is a part of the thick particular, the fact that these entities stand in what is sometimes called an "instantiation relation" supervenes upon the thick particular itself. In contrast, the tie between a bare particular and a universal—the more fundamental instantiation relation—is external. If we grant, as I believe we should, that a bare particular can fail to instantiate any universals, we can see that facts about instantiation do not supervene upon a bare particular and a universal alone. The world must also cooperate in unifying them, since a bare particular might fail to instantiate a given universal. In light of this, the substratum theorist's understanding of instantiation takes the connection between bare particulars and universal to be highly extrinsic or relational, even though the connection between thick particulars and universals is not.

The differing character of these instantiation relations is crucial to the project of sustaining non-qualitative counterpart theory. As you might now have guessed, the proposal for understanding non-qualitative counterpart relations takes the following form: x is a counterpart of y if and only if some bare particular, z, overlaps x and y. The idea is, then, that bare particulars—entities that make no qualitative difference in the world—will unify numerically distinct thick particulars that inhabit distinct possible worlds.

The main challenge this proposal faces is in explaining how bare partic-

ulars inhabit distinct possible worlds. Such a proposal runs headlong into an argument offered by Lewis, which seems to show that no object can be a part of distinct possible worlds. I believe this challenge can be met. I'll now present Lewis's argument and indicate how the substratum theorist can accommodate bare particulars with overlap (i.e., the thesis that bare particulars are a part of distinct possible worlds).

The Argument from Accidental Intrinsics runs as follows: Suppose that Rube exists at two possible worlds, w and w^* . Further suppose that at w, Rube has the accidental property of squinting, and that at w^* Rube has the accidental property of not squinting. Given that Rube at w is identical to Rube at w^* , Rube is both squinting and not squinting. But, since nothing can be both squinting and not squinting, the assumption that Rube exists at two possible worlds must be mistaken.

Faced with this initial argument, the natural response is to hold that the contradiction is merely apparent, since Rube merely stands in two distinct albeit perfectly consistent relations. He bears the *squinting at* relation to w and the *not squinting at* relation to w^* . In this way, his accidental squinting is no more contradictory than his squinting now and his failure to squint five minutes ago.

The problem with this natural response is that it quickly requires us to view apparently intrinsic properties as mere relations to worlds (or times). For example, Barry is actually five feet tall, but Barry could have been six feet tall. According to the account under consideration, this means there is a possible world where Barry is five feet tall and another where he is six feet tall. Upon pain of contradiction, one is required to view Barry's height as a relation to possible worlds. But this seems mistaken. The property of *being five feet tall* is not a relation; it is an intrinsic property. If, however, Barry and others exist in distinct worlds, many intrinsic properties of individuals must be construed as mere relations to worlds in order to avoid contradiction. Indeed, any property that is not essential to Barry will, according to the response under consideration, be forcibly recast as a relation to a world rather than an intrinsic property. According to Lewis, this is an untenable result and provides sufficient grounds for denying that individuals exist at more than one world.

The Argument from Accidental Intrinsics is put forward by Lewis as reason to deny that ordinary objects overlap worlds. (Note that I use "overlap" here to indicate "wholly overlap" rather than "partially overlap," the properties and bare particulars that are parts of thick particulars will indeed overlap distinct worlds.) And, as should now be clear, ordinary objects are to be identified with thick rather than bare particulars. We should, therefore, follow Lewis in denying that thick particulars can overlap possible worlds lest we deny that ordinary objects have intrinsic properties. This verdict squares with our present understanding of the tie between thick particulars and universals. Since their connection is an internal relation, thick particulars have their intrinsic properties in virtue of themselves. For this reason it is implausible to view putatively intrinsic properties as being mere relations to worlds.

Now, although the Argument from Accidental Intrinsics shows that thick particulars cannot overlap worlds, it is not effective in showing the same to be true of bare particulars. Recall that the tie between bare particulars and universals is extrinsic or relational in nature; bare particulars do not stand in instantiation relations in virtue of themselves alone. Because of this, there is no compelling reason to accept that bare particulars have the properties they instantiate *as intrinsic properties*. We can accept that they bear the instantiation relation to properties that *thick particulars* have intrinsically, but still hold the qualitative character of bare particulars to be exclusively relational. Furthermore, we can explain the intuitions about intrinsicality that underwrite the Argument from Accidental Intrinsics as intuitions about thick rather than bare particulars. In this way, there is no reason for the substratum theorist to accept Lewis's argument against the possibility of bare particulars overlapping distinct worlds.²⁴

²⁴For more on overlap within modal realism, see McDaniel (2004).

5 Modal Realism with Bare Particulars

I have now defended the possibility that bare particulars overlap distinct worlds. Granted this, I will now sketch a metaphysics of *de re* modality: *modal realism with bare particulars* (hereafter, MRBP). To understand this view, consider our background ontology of a plurality of concrete worlds. For any qualitative description of a metaphysically possible world, there are a plurality of worlds that satisfy that description. Every world is made up of thick particulars. These particulars have two kinds of non-spatiotemporal parts. There are universals, which determine the qualitative character of the world, and there are bare particulars, which bear an external relation of instantiation to universals. Thick particulars are worldbound entities, but universals and bare particulars overlap myriad worlds.

Let us now build upon this background ontology: Consider every qualitative description of a possible world. Given this purely qualitative description, there are a plurality of ways the world might be non-qualitatively. Intuitively, we can view the qualitative profile of a thick particular as a "slot" into which any bare particular might be inserted. We can now stipulate that, for every qualitative description of a metaphysically possible world and every way of mapping or "inserting" bare particulars into those slots, there is some world where those bare particulars occupy those very slots. Abstractly, there is a plenitude of non-qualitative possibilities for every maximal qualitative possibility.

With the background ontology in place, we can now introduce the nonqualitative counterpart theory that will provide an account of de re modality for thick particulars. According to this theory, a thick particular, x, has a thick particular, y, as a counterpart if and only if there is a bare particular, z, that overlaps both x and y. On the resulting view, the maximal possibility according to which Bush and Obama swap qualitative profiles is to be identified with the possible world where Bush and Obama's actual bare particulars swap qualitative profiles and all else remains the same. Bush and Obama do not, of course, overlap worlds, since Bush and Obama are thick particulars with intrinsic properties—entities incapable of overlapping worlds. Indeed, it is for this very reason that counterpart theory is still needed to explain their modal properties. Finally, since bare particulars make no qualitative contribution to the world, the counterpart relation here is non-qualitative.

This proposal meets Lewis's challenge: non-qualitative counterpart relations are just relations of bare particular overlap. It also meets the explanatory challenge: these relations are suitable for *de re* representation, since they unify only those entities that share their fundamental ontological constituent: a bare particular. One might, of course, complain that this does not suffice as an explanation; however, short of literal identity, I do not know what might constitute a superior explanation. Notice, for example, that qualitative resemblance is merely the sharing of particulars' other fundamental ontological constituents: universals. If one finds the present explanation unsatisfactory, I suspect they should find the explanation of LMR unsatisfactory, too. And, unless one opts for modal parts or some other proposal, they will find any modal realism untenable. So much the worse for them.

It is also worth addressing the worry that MRBP is no longer a form of counterpart theory. As I've argued, the subjects of ordinary modal discourse are thick particulars. And, since the Argument from Accidental Intrinsics provides reason to believe thick particulars are worldbound, the analysis of $de \ re$ modal properties of thick particulars requires appeal to counterpart theory. That said, bare particulars are not worldbound and their $de \ re$ modal properties need not be analyzed in terms of counterpart theory. But the fact that bare particulars enjoy identity across worlds does not undermine the fact that $de \ re$ modality, insofar as it concerns thick particulars like us, is a matter of counterpart relations.²⁵

But does MRBP in fact preclude any and all identity of thick particulars across possible worlds? For example, what prevents duplicate thick particu-

 $^{^{25}}$ The claim that MRBP is a form of counterpart theory need not entail that the *de re* modal properties of entities of all ontological categories are given via counterpart theory. After all, were Lewis to accept an ontology of universals, they would likely admit of identity across possible worlds, but this would do nothing to undermine the thesis that his view of the *de re* modal properties of objects is a form of counterpart theory.

lars that share a common bare particular from overlapping distinct possible worlds? Since contrary intrinsic properties do not bar such individuals from existing across worlds, we might seem forced to admit rare cases of genuine identity across possible worlds.

There are three options available for dealing with the possibility of thick particulars overlapping worlds. First, one might simply allow these rare instances of thick particular overlap, and hold them to ground *de re* modal properties even while the vast majority of *de re* modal claims are analyzed via non-qualitative counterpart theory. Second, one can reconsider our initial assumptions and opt for a metaphysics of tropes rather than universals. Granted trope theory, no particulars have all the same bare particulars and properties, given the uniqueness of individual tropes, so there is no pressure to admit any instances of genuine identity across worlds. Third, one can rule out thick particular overlap by fiat.²⁶ This third option comes at a potential cost: it seems to violate classical mereology insofar as thick particulars at distinct worlds might have the same bare particulars and universals as parts yet be numerically distinct. If, however, substratum theory already requires the denial of classical mereology, this is no cost at all. For my part, I incline towards the first option, but I see no reason to rule out the other strategies as viable options for the defender of MRBP.

6 Three Objections

MRBP undermines Lewis' case against non-qualitative counterpart theory and provides an alternative to LMR that accommodates modal correspondence.²⁷ In this section, I consider three kinds worries that might remain about MRBP.

The first kind of worry concerns the details of substratum theory. This

²⁶Notice, for example, that, while Lewis holds the problem of accidental intrinsics to preclude identity across worlds, the existence of this general problem does not, on its own, rule out the identity of some specific intrinsic duplicates across worlds. Instead, Lewis infers the impossibility of identity across worlds from the existence of the relevant problem and, if one is content with this inference, MRBP is on all fours with LMR.

²⁷Defenses of alternative modal realisms in Bricker (2006) and McDaniel (2004).

sort of worry arises when we press the substratum theorist for the details of her view. Most notably, there are crucial yet unanswered questions about the relation between non-spatiotemporal parts—bare particulars and universals—and the spatiotemporal parts of thick particulars (e.g., the nose that is a part of my face). For example, given a composite material object, nothing has been said about whether this object has a mereologically simple bare particular or, instead, the fusion of all its spatiotemporal parts' bare particulars as a non-spatiotemporal part. I share the worry that MRBP is under-developed without answers to these questions. More needs to be said about the metaphysics of substratum theory.²⁸ Here, I can only offer a promissory note: I suspect that there are many ways to develop the present version of substratum theory, but that, on any attractive formulation, MRBP will retain the ontological resources to understand bare particular overlap and, concomitantly, non-qualitative counterpart theory.

The second kind of worry concerns the possibility of island universes. I have argued for the importance of modal correspondence. If, however, island universes—externally unrelated possible worlds—are possible, they threaten my efforts to sustain modal correspondence.²⁹ For example, since I have identified each maximal possibility with some possible world, what are we to say about a maximal possibility wherein many of these possible worlds are actualized? For my part, I find Lewis's denial of the possibility of island universes plausible.³⁰ Insofar as I understand the limits of actuality, I understand them in terms of external relations. At the same time, some are likely to follow Bricker (2006) and others in taking the possibility of island universes as datum for a suitable metaphysics of modality. Here, I can do no better than Lewis (1986) and am forced to concede that the present view cannot accommodate them.

The third kind of worry concerns contingent identity. Recall that, according to MRBP, non-qualitative relations unify thick particulars. These non-qualitative relations are never many-one relations, since there is no thick

²⁸In particular, the prospects for reconciling substratum theory with classical mereology require more careful scrutiny.

²⁹See Bricker (2006) for discussion of island universes.

 $^{^{30}}$ See Lewis (1986: 71).

particular that has more than one bare particular.³¹ For this reason, MRBP would seem to owe some account of claims that flout the necessity of identity. In particular, two kinds of cases require accommodation: modal fission cases, which are expressed by claims like "Obama could have been twins," and modal fusion cases, which are expressed by claims like "Bush and Obama could have been a single emperor."

For my part, I am convinced by Kripkean arguments for the necessity of identity.³² So, *pace* defenders of contingent identity, my preferred version of MRBP holds that, within any world, there is a one-to-one correspondence between bare particulars and thick particulars. For those who hope to accommodate contingent identity, MRBP is a more complicated affair.

To accommodate the relevant cases, the defender of MRBP must allow that bare particulars can outnumber thick particulars within a world (but not vice versa), by virtue of a single bare particular overlapping distinct thick particulars.³³ The resulting treatment of modal fission cases is straightforward: "Obama could have been twins" is true provided there is possible world in which the bare particular that actually overlaps Obama overlaps distinct thick particulars that are twins. If we suppose that Bush and Obama actually share a common bare particular, the analysis of fusion cases is also straightforward: "Bush and Obama could have been a single emperor" is true provided that their common bare particular is a part of an individual that is an emperor in another possible world. But, if Bush and Obama do not actually share a common bare particular, our analysis holds the claim in question is false. For this reason, the proposed analysis seems to guarantee our ignorance of the truth-value of fusion claims unless

³¹At least not as its "basic" ontological constituent. We might allow that composite material objects have many bare particulars as constituents, but its basic constituent is the fusion of all these bare particulars. The bare particular that instantiates the universals we attribute to the object.

³²See Kripke (1980).

³³Among other things, this requires endorsing the temporal and spatial analogue of MRBP and the corresponding responses to problems regarding temporary and spatial intrinsics. Since the temporal analogue of counterpart theory is stage theory, defended in Sider (2001), the temporal analogue of MRBP is non-qualitative stage theory. I hope to say more about the prospects for non-qualitative stage theory elsewhere.

we have knowledge of the actual distribution of bare particulars. And, since knowledge of the distribution of bare particulars is liable to prove mysterious once exotic distributions of bare particulars are admitted, it would seem that ignorance of modal fusion claims follows quickly.

If the defender of contingent identity finds our potential ignorance of the truth of modal fusion claims unacceptable, she is likely to look elsewhere for an analysis. On one strategy, claims involving the modal fusion of actual individuals are properly paraphrased as claims regarding whichever worlds qualitatively indiscernible from actuality have the requisite distribution of bare particulars. So, for example, "Bush and Obama could have been a single emperor" is true provided there is possible world where a non-actual bare particular overlaps individuals qualitatively indiscernible from Bush and Obama and a further world where that bare particular overlaps a lone individual emperor.

On a more revisionary approach, the defender of contingent identity accommodates fusion cases by holding the fundamental instantiation relation between universals and bare particulars to be multigrade rather than dyadic. In denying this fundamental assumption of substratum theory, she allows that some thick particulars have a plurality of bare particulars, since the multigrade instantiation relation unifies many bare particulars with many universals.³⁴ Granted this revision, fusion cases can be accommodated in an intuitive fashion: "Bush and Obama could have been a single emperor" is true provided that the distinct bare particulars that are parts of Bush and Obama are part of a common thick particular that is an emperor in a distinct accessible world.

This revisionary approach raises more issues than it settles, but, in general, the prospects for accommodating claims of contingent identity within MRBP are favorable. But, for those of us unsympathetic to the dark doctrine of contingent identity, MRBP is better off sustaining a one-to-one correspondence between bare particulars and thick particulars within a world and rejecting cases of modal fission and modal fusion outright.

³⁴This instantiation relation now proves suspiciously similar to the primitive multigrade compresence relation of bundle theory.

7 Conclusion

We began with three attractive theses: (i) haecceitism, which requires maximal possibilities that differ only non-qualitatively; (ii) modal correspondence, which requires that each maximal possibility be identical with or represented by a unique possible world; (iii) counterpart theory, which holds that *de re* representation is a matter of counterpart relations.

After noting that LMR is at odds with modal correspondence, I developed and defended an alternative version of modal realism, MRBP, that achieves the desired reconciliation of the theses in question. This reconciliation turns largely on the immunity of bare particulars to the Argument from Accidental Intrinsics. According to MRBP, bare particulars are identical across a plurality of concrete worlds and ground non-qualitative counterpart relations between the thick particulars. Specifically, thick particulars are counterpart-related if and only if they share a common bare particular. As I have argued, MRBP sustains haecceitism, modal correspondence, and counterpart theory, and shows, contrary to Lewis, that non-qualitative counterpart theory can be made intelligible after all.³⁵

³⁵For helpful discussion and comments, my thanks to Phil Bricker, Ben Caplan, and two anonymous referees.

References

- Bailey, Andrew. 2012. "No Bare Particulars." *Philosophical Studies* 158: 31-41.
- [2] Black, Max. 1952. "The Identity of Indiscernibles." Mind 61: 153-164.
- [3] Bricker, Phillip. 1996. "Isolation and Unification: The Realist Analysis of Possible Worlds." *Philosophical Studies* 84: 225-238.
- [4] Bricker, Phillip. 2006. "Absolute Actuality and the Plurality of Worlds." *Philosophical Perspectives* 20: 41-76.
- [5] Cowling, Sam. 2011. Identity and the Limits of Possibility. Dissertation: University of Massachusetts, Amherst.
- [6] Denkel, Arda. 2000. "The Refutation of Substrata." *Philosophy and Phenomenological Research* 61: 431-439.
- [7] Giberman, Daniel. (forthcoming) "Against Zero-Dimensional Objects (and Other Bare Particulars)." *Philosophical Studies*.
- [8] Graff Fara, Delia. 2009. "Dear Haecceitism." Erkenntnis 70: 285-297.
- [9] Hawthorne, John. 1995. "The Bundle Theory of Substance and the Identity of Indiscernibles." Analysis 55: 191-196.
- [10] Hawthorne, John. 2003. "Identity" in *The Oxford Handbook of Meta-physics* (eds.) Michael Loux and Dean Zimmerman. Oxford: Oxford University Press.
- [11] Lewis, David. 1968. "Counterpart Theory and Quantified Modal Logic." Journal of Philosophy 65: 113-126.
- [12] Lewis, David. 1971. "Counterparts of Persons and Their Bodies." Journal of Philosophy 68: 203-211.
- [13] Lewis, David. 1979. "Attitudes De Dicto and De Se." Philosophical Review 88: 513-543.

- [14] Lewis, David. 1986. On the Plurality of Worlds. Oxford: Blackwell.
- [15] Lewis, David. 2003. "Things Qua Truthmakers." In *Real Metaphysics: Essays in Honour of D.H. Mellor* (ed. Lillehammer, H., *et al*). Cambridge: Cambridge University Press.
- [16] Lewis, David. 2008. "Ramseyan Humility." In Naturalism and Conceptual Analysis (ed. Nola, R., and Braddon-Mitchell, R.). Cambridge, MA: MIT Press.
- [17] McDaniel, Kris. 2004. "Modal Realism with Overlap." Australasian Journal of Philosophy 82: 137-152.
- [18] Melia, Joseph. 2003. Modality. McGill-Queen's University Press: Montreal.
- [19] Moreland, J.P. 19998. "Theories of Individuation: A Reconsideration of Bare Particulars." *Pacific Philosophical Quarterly* 79: 251-263.
- [20] Moreland, J.P. 2001. Universals. McGill-Queen's University Press: Montreal.
- [21] Moreland, J.P., and Pickavance, T. 2003. "Bare Particulars and Individuation: Reply to Mertz." Australasian Journal of Philosophy 81: 1-13.
- [22] Sider, Theodore. 2001. Four-Dimensionalism. Oxford: Oxford University Press.
- [23] Sider, Theodore. 2006. ""Bare Particulars."" *Philosophical Perspectives* 20: 387-397.
- [24] Skow, Bradford. 2008. "Haecceitism, Anti-Haecceitism, and Possible Worlds." *Philosophical Quarterly* 58: 98-107.
- [25] Stalnaker, Robert. 2007. Our Knowledge of the Internal World. Oxford: Oxford University Press.