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## QUIDDISTIC KNOWLEDGE

**ABSTRACT.** Is the relation between properties and the causal powers they confer necessary, or contingent? Necessary, says Sydney Shoemaker on pain of skepticism about the properties. Contingent, says David Lewis, swallowing the skeptical conclusion. I shall argue that Lewis is right about the metaphysics, but that Shoemaker and Lewis are wrong about the epistemology. Properties have intrinsic natures (quiddities), which we can know. On route I shall also argue that (i) the main necessitarian arguments do not converge on a single view, (ii) properties are transworld entities that cannot be handled by counterpart theory, and (iii) quiddistic skepticism is merely external world skepticism writ small.

*He could reduce all things to acts,  
And knew their natures by abstracts;  
Where entity and quiddity,  
The ghosts of defunct bodies fly;  
Where truth in person does appear,  
Like words congeal'd in northern air.  
He knew what's what, and that's as high  
As metaphysic wit can fly;*

(Samuel Butler, 1663: *Hudibras* pt. I, canto I, l. 143–150)

Could like charges attract? In general, is the relation between properties and the causal powers they confer *necessary*, or *contingent*? *Necessary*, says Sydney Shoemaker (1980, 1998), on pain of skepticism about the properties. *Contingent*, says David Lewis (forthcoming), swallowing the conclusion that, “we are irremediably ignorant about the identities of the fundamental properties”. I shall argue that Lewis is right about the metaphysics, but that Shoemaker and Lewis are wrong about the epistemology. That is, I shall argue that properties have intrinsic natures, or *quiddities*; and that we can *know* the quiddities.

*Roadmap:* In section 1, I distinguish five views of the relation between properties and their powers. In section 2, I uphold quiddistic contingentism (the Lewisian view of the

metaphysics). Here it will emerge that various ‘necessitarian’ arguments call for distinct views. In section 3, I uphold quiddistic knowledge. Here it will emerge that virtually any account of knowledge answers quiddistic skepticism.

## 1.

Is the relation between properties and their powers necessary, or contingent? If necessary, why so? If contingent, to what extent so? There are at least *five distinct views* revealed by these questions, which differ in the range of worlds they countenance.

*Three “necessitarianisms”*: If the relation between properties and their powers is necessary, why so? There are at least three different ways to answer this question. First, there is the view that the relation is necessary because the actual laws of nature hold with *metaphysical* necessity. On this view, like charges could not attract because Coulomb’s law holds in every possible world. I will label this first version of necessitarianism *modal necessitarianism*.

A second answer to the question of why the relation between properties and their powers is necessary is that properties are individuated by their *nomological roles*. The essence of a property, on this view, is its place in the Ramsified lawbook. To derive the Ramsified lawbook, conjoin the law statements, uniformly replace each property name by a variable, and prefix the result with a unique-existential quantifier  $\exists!$  for each variable. To find the place of a given property, delete its associated quantifier. The resulting open sentence describes the essence of this property. To be that property is to satisfy that sentence. On this view, like charges could not attract because to be charge is to satisfy the place of “charge” in laws such as Coulomb’s law. I will label this second version of necessitarianism *nomical necessitarianism*.

A third answer to why the relation between properties and their powers is necessary is that properties are individuated by their *causal powers*. The essence of a property, on this view, is its potential causes and effects. The potential causes and effects of a property are given by a cause-function from circumstances and potential causes to the property in question, together with

an effect-function from the property in question and circumstances to potential effects. To be that property is to fulfill that function. On this view, like charges could not attract because to be charge is to be the property whose effect-function, in circumstances of the presence of likes, maps to repulsion. I will label this view *causal necessitarianism*.

Modal, nomic, and causal necessitarianisms are different views. They differ over the extent of possible worlds. The modal necessitarian countenances no worlds with *alien laws* (laws distinct from the actual ones). The nomic and causal necessitarian countenance all the worlds that the modal necessitarian countenances, plus some worlds with alien laws, provided that these alien laws only govern *alien properties* (properties distinct from the actual ones, and from any conjunctions or composites thereof). For instance, the modal necessitarian does not allow that there is a world in which a charge-ish property produces attraction-esque behavior among likes; whereas the nomic and causal necessitarian allow such a world but insist that it is merely a world in which like *schmarges schmattract* (an alien law governing an alien property). Thus the worlds countenanced by modal necessitarianism are a proper subset of the worlds countenanced by nomic or causal necessitarianism.

The modal and nomic necessitarian countenance no worlds with *symmetric laws*, which are laws involving two or more properties in structurally indiscernible roles. The causal necessitarian countenances all the worlds that the modal and nomic necessitarian countenance, plus some worlds with symmetric laws, provided that these symmetric laws are causally different. For instance, the modal and nomic necessitarians do not allow that there is world containing only four properties: F, G, H, and I, and two laws:  $F \Rightarrow G$ , and  $H \Rightarrow I$ . For the modal necessitarian, this is impossible simply because these are not the actual laws. For the nomic necessitarian, this is impossible because F and H have the same nomic role, as do G and I. The Ramsified lawbook reads:  $(\exists!P1)(\exists!P2)(\exists!P3)(\exists!P4) (P1 \Rightarrow P2 \ \& \ P3 \Rightarrow P4)$ . Any role-based distinction between F and H is erased: each works equally well in the place of P1 and P3. Thus for the nomic necessitarian,  $F = H$ , and for analogous reasons  $G = I$ . She can

only recognize two distinct properties here, not four. But for the causal necessitarian, this is possible, since F and H differ in their effects: F causes G, while H causes I. Likewise G and I differ in their causes. So the causal necessitarian can allow for four distinct properties here. Thus the worlds countenanced by modal and nomic necessitarianism are a proper subset of the worlds countenanced by causal necessitarianism.<sup>1</sup>

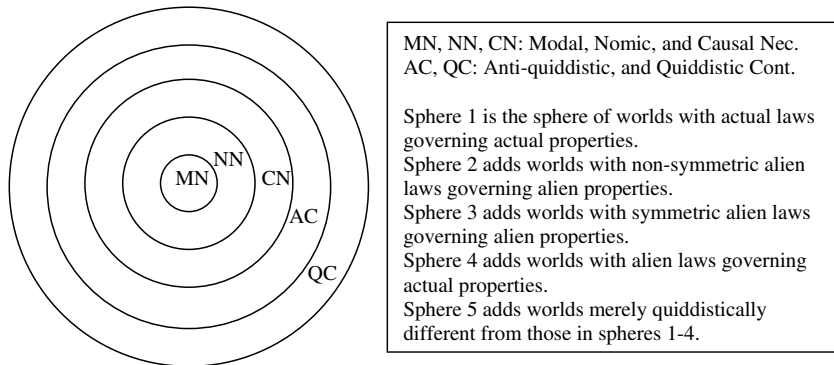
*Two “contingentisms”*: If the relation between properties and their powers is contingent, to what extent so? Can properties and their powers disassociate *completely*, such that worlds can differ solely over which property confers which power? On one view, properties and their powers can disassociate only *partly*, because properties are world-bound entities, which can at best be counterparts of properties in other worlds, in a way partly determined by powers. On this view, like charges could attract, because there is a world in which there is a property otherwise sufficiently charge-ish, producing behavior otherwise sufficiently attraction-esque among likes. For reasons that will emerge shortly, I will label this view *anti-quiddistic contingentism*.

A second answer to the question of the extent of contingency is that properties and their powers can disassociate *wholly*, because properties are transworld entities, which can freely recombine with any lawmakers (be these regularities, second-order universals, new primitive entities, or whatnot). On this view, like charges could attract, because there is a world in which there is charge, but lawmakers such that likes attract. For reasons that will emerge shortly, I will label this view *quiddistic contingentism*.

Anti-quiddistic and quiddistic contingentism are different views. They differ over the extent of possible worlds. Call two worlds that differ solely by swaps of which properties confer which powers *merely quiddistically different*.<sup>2</sup> Then the difference between anti-quiddistic and quiddistic contingentism (and the reason for their labels) is that anti-quiddistic contingentism countenances no merely quiddistic differences. The anti-quiddistic contingentist claims to satisfy contingentist intuitions cheaply, by treating power-swapping as multiple possibilities for a single world.<sup>3</sup> The quiddistic contingentist countenances all the worlds that the anti-quiddistic contingentist counte-

nances, plus worlds merely quiddistically different from these. For instance, the anti-quiddistic contingentist does not allow that there is a world that differs from actuality solely in that charge and mass swap powers (for the anti-quiddistic contingentist, this swap possibility is satisfied by the actual world itself). Whereas the quiddistic contingentist does recognize such a distinct world. Thus the worlds countenanced by anti-quiddistic contingentism are a proper subset of the worlds countenanced by quiddistic contingentism.<sup>4</sup>

*Five views:* So is the relation between properties and powers necessary, or contingent? Bringing the preceding discussion together, there are at least five distinct views revealed by this question, distinct in terms of the range of possible worlds they countenance. Picturesquely:



Thus the question of the relation between properties and their powers is transformed into the question: which possible worlds should one countenance?

Possible worlds have reasonably well-understood theoretical roles. Thus the question of which to countenance may prove tractable.

2.

Which possible worlds should one countenance? Possible worlds play a role in accounts of modality, counterfactuals, propositions, conceivability, recombination, and properties, *inter alia* (see

especially Lewis, 1986, chapter 1). So the question becomes: which possible worlds are needed by the best theories of these topics?<sup>5</sup>

*Modality and Counterfactuals*: Possible worlds are connected to *modality* and *counterfactuals*. The connection to modality is as follows:  $\Box p$  is true iff  $p$  is true in all possible worlds;  $\Diamond p$  is true iff  $p$  is true in some possible worlds. The connection to counterfactuals is (roughly) as follows:  $p > q$  is true iff in the nearest possible world in which  $p$  is true,  $q$  is true.<sup>6</sup> Necessitarians have argued that the modality of natural necessity, and the counterfactuals sustained thereby, support their view. I will argue that (i) *if* valid, these arguments would call for *modal* necessitarianism; but (ii) these arguments are *invalid*; and indeed (iii) modality and counterfactuals require *contingentism*.

Necessitarians have argued that the modality of natural necessity, and the counterfactuals sustained thereby, support their view. The argument from natural necessity begins with the observation that there is some sense in which the laws of nature are necessary. That is, there is some sense in which it is true to say that like charges *must* repel.<sup>7</sup> The argument then runs:

- (1) If the relation between properties and their powers is contingent, then like charges *might not* repel;
- (2) Like charges *must* repel;
- (3) Therefore: the relation between properties and their powers is not contingent.

The argument from sustaining counterfactuals begins with the observation that laws of nature sustain counterfactuals. For instance, it is true that if there were like charges here, then they would repel. The argument then runs:

- (4) If the relation between properties and their powers is contingent, then there is nothing that guarantees that like charges repel in any other possible world;
- (5) In the nearest possible world, like charges repel;
- (6) Therefore: the relation between properties and their powers is not contingent.<sup>8</sup>

*If* valid, these arguments would call for *modal* necessitarianism. Starting with the argument from natural necessity in

(1)–(3), (2) is being read as equivalent to: necessarily, like charges repel; and thus: in all possible worlds, like charges repel. In general, the argument points to the modal necessitarian view that in all possible worlds, the actual laws hold.<sup>9</sup> Turning to the argument from sustaining counterfactuals in (4)–(6), one can formulate a direct argument against nomic and causal necessitarianism. Suppose there is a world  $w$  at which Coulomb’s law does not hold. And consider the following counterfactual at  $w$ : if there were like charges here, they would repel. It would seem that the nomic/causal necessitarian should rate this counterfactual *true*, given what they take to be the essence of charge. But then one has a true counterfactual, which (given the argument in question) must be sustained by the laws of that world, and hence one has a direct argument that Coulomb’s law holds at  $w$ , *contra* what was supposed. In general, this argument points to the modal necessitarian view that in all possible worlds, the actual laws hold, since the counterfactuals they sustain always hold.

But these arguments are invalid. Starting with the argument from natural necessity, the argument equivocates. The “might” in the consequent of (1) does not contradict the “must” in (2). Modal terms like “might” and “must” are *contextually variable*.<sup>10</sup> For instance, we routinely speak of the past, the known, the obligatory, and the conventional in terms of “must”, when it is evident that these involve variable restrictions on which worlds are accessible. (Consider: “One must eat with a fork!”) The “must” of natural necessity in (2) is a restricted necessity, and the “might” in (1) is unrestricted. Hence they are compatible. Just as the conventional necessities hold when the conventions are held fixed (e.g., when only worlds with the same conventions are accessible), so the natural necessities hold when the laws are held fixed. Thus like charges must repel because in all possible worlds *with the actual laws of nature*, Coulomb’s law holds. The contingentist gives natural necessity its due.

Turning to the argument from sustaining counterfactuals, the argument ignores nearness. The “nothing that guarantees” concern in (4) need not contradict the claim about “the nearest possible world” in (5), provided that being nearest itself serves

as guarantee. That is, what is needed to sustain the counterfactual is a guarantee that actual laws such as Coulomb's law will hold at the nearest possible world. The contingentist does think that Coulomb's law holds at some (just not all) other possible worlds. So all the contingentist needs is that these other Coulomb's law worlds are nearest. In general, all the contingentist needs is the claim (Lewis 1979) that fixity of laws is partly *constitutive* of nearness.<sup>11</sup>

Indeed, the best accounts of modality and counterfactuals require *contingentism*. Starting with modality, only the contingentist can assimilate natural necessity to the general pattern of restricted necessities found across the historical, epistemic, deontic, and conventional necessities. The pattern is manifest in our *flexible usage profile*: we flit from "must" to "might" depending on contextual cues. Thus just as the historian may say that what is past must be, and just as the scientist might say that like charges must repel, both can be expected to shift to "might" if the possibilities of a different past or laws (respectively) are rendered relevant. If so, then contingentism fits the best linguistic account of modal discourse generally.

Turning to counterfactuals, one can formulate a direct argument for contingentism. For the best account of counterfactuals requires *miracles* (slight violations of the actual laws) in order to implement their antecedents (Lewis, 1973, pp. 75–77). That is, to implement the antecedent that there are like charges at a given location (assuming this to be actually false), we need to imagine some miraculous swerving of say, two electrons, that brings them to said location. Assuming that the actual laws are deterministic (which is at least an empirically open possibility, given Bohmian mechanics), such a miraculous swerving will require a slight violation of the actual laws. Hence the laws of the nearest possible world in which there are like charges here must be just slightly different from the actual laws. Thus to implement the counterfactual antecedent, one needs worlds with actual properties but alien laws. This is contingentism (Armstrong, 1999, pp. 33–34).

The necessitarian may respond to the argument from counterfactuals in one of three ways. First, she may attempt to



implement the counterfactual antecedent without miracles, by tinkering with the *initial conditions* instead, in such a way as that the actual laws will evolve into the antecedent. But this introduces complete ‘backtracking’, yielding implausible counterfactual dependencies of the initial conditions on the present charges. Second, the necessitarian may grant that the supposition of like charges here is impossible, but hope for a nontrivial semantics for *counterpossibles* (Swoyer, 1982, p. 221). But this remains wishful thinking, as no such semantics yet exists. Third, the necessitarian may give up on truth-conditions for counterfactuals altogether, and regard such constructions as at best *assertible* (Ellis, 1999, p. 30; see also Ellis, 2001, pp. 279–283). But this is not just a weak retreat (especially given the necessitarian insistence on objective truth-conditions for counterfactuals encountered above), it also leads to standard Geach-style worries about counterfactuals embedded in truth-functional contexts. The best theory of counterfactuals requires contingentism.

*Propositions, Conceivability, and Recombination:* Possible worlds are connected to *propositions*, *conceivability*, and *recombination*. The connection to propositions is as follows: proposition  $p = \{w: p \text{ is true at } w\}$ . The connection to conceivability is as follows: If it is conceivable that  $p$ , then there is a possible world at which  $p$  is true (or at least there is *prima facie* evidence for such a world).<sup>12</sup> The connection to recombination is as follows: if  $x$  and  $y$  are distinct existences, then there is a possible world with just  $x$ , a possible world with just  $y$ , and a possible world with both  $x$  and  $y$ . I will argue that (i) all three of these connections require *contingentism*; and (ii) extant necessitarian replies *fail*.

All three of these connections (from possible worlds to propositions, conceivability, and recombination) require *contingentism*. The argument from propositions begins with the point that there are contentful propositions involving actual properties under alien laws. For instance, a misinformed scientist might believe that like charges attract. The argument then runs:

- (7) If the relation between properties and their powers is necessary, then there is no contentful proposition that like charges attract;

- (8) There is a contentful proposition that like charges attract;
- (9) Therefore: the relation between properties and their powers is not necessary.

The argument from conceivability begins with the observation that it is conceivable that like charges attract. The argument then runs:

- (10) If the relation between properties and their powers is necessary, then it is inconceivable that like charges attract;
- (11) It is conceivable that like charges attract;
- (12) Therefore: the relation between properties and their powers is not necessary.

The argument from recombination begins with observation that having charge and exhibiting a certain acceleration seem to be distinct existences and hence amenable to recombination. The argument then runs:

- (13) If the relation between properties and their powers is necessary, then some combinations of charge and acceleration would be impossible;
- (14) All combinations of charge and acceleration are possible;
- (15) Therefore: the relation between properties and their powers is not necessary.<sup>13</sup>

Extant necessitarian replies to these three arguments fail. The necessitarian will reply that the arguments from propositions in (7)–(9) and conceivability in (10)–(12) are based on *misdescriptions*. She will say that there is no proposition in (8), and nothing conceivable in (11): the proposition entertained and scenario conceived are those of a superficially charge-ish property exhibiting attraction-esque behavior among likes, which is the possibility of like schmarges schmattracting misdescribed (see especially Shoemaker 1998).<sup>14</sup> Here the necessitarian extends Saul Kripke's (1980) explanation of modal illusions in cases such as that of water being H<sub>2</sub>O. Kripke explains away modal illusions of water being XYZ as conceptions of a superficially water-ish property being XYZ, which is the possibility of thwater being XYZ misdescribed.<sup>15</sup>

If successful, this Kripkean response would call for *nomic* or *causal* necessitarianism. That is, the maneuver presupposes that there is a possible world (the one genuinely conceived) in which like schmarges schmattract, which is what the modal necessitarian rejects.

But this response fails for two reasons. The first point of disanalogy between “water is H<sub>2</sub>O” and “charge is governed by Coulomb’s law” concerns the presence of *identity*. The Kripkean maneuver is compelling for water = H<sub>2</sub>O because there is an identity, and identities are necessary (Kripke, 1980, pp. 97–105). Hence any conception of water being XYZ must be some sort of illusion. But the relation between charge and Coulomb’s law is governance rather than identity, and hence no comparable compulsion to necessity exists. There is no *independent* reason for thinking that any misdescription is taking place. The extension of the Kripkean framework is thus unmotivated.<sup>16</sup>

Imagine a crazy theorist who insists that it is metaphysically impossible for there to be a talking donkey. When faced with the objection that one can perfectly well *conceive* of a talking donkey, he replies: “Well, that is just a misdescription of a different scenario, in which some merely donkey-like beast is doing the talking.” It seems to me that the proper reply here is: what (independent) reason do you have for thinking that this is a misdescription? I offer the analogous reply to the necessitarian.

The second point of disanalogy concerns *epistemic duplication*. The Kripkean maneuver presupposes that water and thwater are superficially similar in the sense of being epistemic duplicates. But charge and schmarge cannot be epistemic duplicates, by the necessitarian’s own lights. For the (nomic or causal) necessitarian, properties are *holistically interdefined* in terms of their web of (nomic or causal) interrelations. For instance, charge is defined in terms of a disposition to exert force, force is defined in terms of its connection to charge and its disposition to accelerate mass, etc. Consequence: a world without charge cannot have *any* other actual properties like force or mass (it may at best have “quorce” and “schmass”). In general, in a world with schmarge, *all properties must be alien properties*. But now what remains of epistemic duplication? *These worlds have no common content*.

Indeed, given that epistemic properties like believing and perceiving are in the causal web, a world without charge cannot have belief or perception or any other property that might serve as a basis for epistemic duplication.<sup>17</sup>

The necessitarian will also reply that the argument from recombination in (13)–(15) begs the question. She will say that the claim of distinctness in (14) presupposes contingentism: on a necessitarian theory it is of the essence of charge that it produces certain accelerations, hence these are not distinct existences.

This response preserves the letter of recombination, but dashes its spirit. Suppose that the laws are deterministic. Then it is a consequence of the necessitarian reply to the argument from recombination that cause and effect cannot be distinct existences, being essentially intertwined. And thus correlates of a common cause cannot be distinct existences either, as their essences will intertwine through their common origin. *But every actual existence is a correlate of a common cause: the Big Bang.* Thus it is a consequence of the necessitarian reply that *zero* recombination of actual existences is allowed. The world has become an indivisible Parmenidean unity, the essential outpouring of the initial singularity. This is not a minor restriction on recombination, but rather an unprecedented rejection of *any* recombination of actual elements.<sup>18</sup>

Recombination and conceivability are interrelated. Part of the justification for recombination is the conceivability of what results. What emerges is that the necessitarian is committed to a complete collapse of any conceivability-possibility link, far beyond a few Kripkean modal illusions. The best theories of propositions, conceivability, and recombination require contingentism.

*“Necessitarianism” Dissolved:* It emerges that various “necessitarian” arguments call for distinct views. By way of prelude, it seems intuitively possible to have symmetric laws, such as in the example of four properties, F, G, H, and I, and two laws:  $F \Rightarrow H$ ,  $G \Rightarrow I$  (section 1). Indeed, it seems possible to have symmetric nomic structures that themselves indicate multiplicity. For instance, suppose that there are four distinct properties, F, G, H, and I, and three laws:  $F \Rightarrow H$ ,  $G \Rightarrow H$ ,  $F \& G \Rightarrow I$ . Then (i) there is no distinction between F and G in

the Ramsified lawbook, but (ii) the lawful structure indicates two distinct properties because only a conjunction of distinct properties produces I (Hawthorne, 2001, p. 373). Moreover, it seems like one can start with an asymmetric nomic structure, and gradually erase the asymmetries, where each erasure seems to preserve possibility. Recognition of such symmetric possibilities requires *causal* necessitarianism (section 1).

Putting previous results together, the arguments from modality and counterfactuals require modal necessitarianism; the Kripkean reply to the arguments from propositions and conceivability requires nomic or causal necessitarianism; the acceptance of symmetries requires causal necessitarianism; and the argument from skepticism (section 3) will turn out to require nomic necessitarianism. Thus ‘necessitarianism’ dissolves, on inspection, into an incoherent heap.

*Quidditism, Properties, and Duplicates*: It remains to compare anti-quiddistic and quiddistic contingentisms. To begin with, possible worlds are connected to *properties*. The connection to properties is as follows:  $x$  is  $F$  iff  $x$  is a member of a certain class of possible objects. This connection requires *quiddistic* contingentism.<sup>19</sup>

The argument from properties begins with the observation that all the leading theories of properties (types) naturally allow transworld identity, in just the same way they allow trans-temporal identity. There are three leading conceptions of properties: immanent universals (Armstrong, 1979, 1997), exact resemblance classes of tropes (D.C. Williams, 1953; Keith Campbell, 1990), and natural classes of possibilia (Lewis, 1983a). Universals allow transworld identity in exactly the same way they allow trans-temporal identity: a single universal is multiply located. Resembling tropes allow transworld identity in exactly the same way they allow trans-temporal identity: multiple tropes perfectly resemble.<sup>20</sup> Classes of possibilia allow transworld identity in exactly the same way they allow trans-temporal identity: multiple objects are members of the same natural class. In short, properties (types) are repeatable in a way that marks no distinction between temporal and modal repetition. The argument then runs:

- (16) If anti-quiddistic contingentism holds, then properties are worldbound;
- (17) Properties are not worldbound;
- (18) Therefore: anti-quiddistic contingentism does not hold.

The anti-quidditist will reply, presumably, that (17) is question-begging. But (17) is *independently* justified by our best theories of properties. Imagine a crazy theorist who banned property types from repeating across *times*. She allows that the property type charge can repeat within a time-slice, but denies that it can repeat across times, demoting any seeming trans-temporal repetition to mere counterparthood. It seems that the right reply to such a theorist is, what conception of property types could you possibly have, that would prevent trans-temporal identity of type? I offer the analogous reply to the anti-quiddistic contingentist.

Furthermore, what could possibly determine counterparthood for properties? There are two candidates one finds in the literature: spatiotemporal distribution, and nomological role (see especially Heller, 1998, pp. 301–302). But these factors are too extrinsic to capture *duplication*. Suppose there is a red cube here and a blue sphere there. Then, intuitively, it seems possible for a perfect duplicate of the red cube to exist alone, or to exist in a world full of green triangles that are governed by alien triangle laws (here the standard contingentist considerations of propositions, conceivability, and recombination may be invoked). In general, it seems that perfect duplication is an *intrinsic affair*, largely independent of the overall spatiotemporal distribution and nomological roles. But on the anti-quiddistic contingentist's view of counterparthood, for the red cube to be perfectly duplicated is for there to be an object all of whose properties are perfect counterparts of those of the original red cube. And this then depends on preserving the overall spatiotemporal distribution and nomological roles. Thus property counterparthood is *too extrinsic* to support robust duplication. What is missing is a crucial component of object counterparthood: *intrinsic similarity* (Lewis, 1973, p. 39). This argument from duplication may be phrased as follows:

- (19) If anti-quiddistic contingentism holds, then the extent to which a possible object  $x$  is a qualitative duplicate of  $y$  depends on extrinsic structural factors;
- (20) Qualitative duplication does not depend on such extrinsic factors;
- (21) Therefore: anti-quiddistic contingentism does not hold.

What emerges are four points of *disanalogy* between quidditism and haecceitism. The argument from properties reveals a first point of disanalogy, between properties and individuals. Individuals are not repeatable. They are exhausted in one instantiation. That is why it makes sense to treat them as worldbound. But property types are repeatable. And nothing in how they repeat poses a barrier to transworld repetition. That is why it makes no sense to treat them as worldbound.

The argument from duplication reveals a second point of disanalogy, in that the anti-quidditist cannot invoke an intrinsic component to counterparthood.

A third point of disanalogy concerns motivation. Lewis invokes counterparts for individuals primarily to resolve the problem of *accidental intrinsics*. For instance, given that Joe is not essentially sitting, and given that posture is intrinsic, then it seems that there is a possible world that represents Joe as sitting, and a possible world that represents Joe as standing. But if the same individual is at both worlds, then the same individual is both sitting and standing (Lewis, 1986, pp. 198–201). No such problem, however, seems to arise for properties. Hence the motivation for invoking counterparthood is missing (Lewis, forthcoming).

A fourth and final point of disanalogy between quidditism and haecceitism is that Lewis's anti-haecceitism actually *presupposes* quidditism. For Lewis, the issue of haecceitism is the issue of whether representation *de re* supervenes on qualitative character (1986, p. 221). That is, anti-haecceitism is the view that "thisness" supervenes on quiddity. Really the anti-quidditist is defending a quite different (and I think less plausible) supervenience thesis, which is that "suchness" supervenes on structure.

*Quiddistic Contingentism Upheld:* So which possible worlds are needed by our best theories? I have argued that (i) our best

theories of modality, counterfactuals, propositions, conceivability, and recombination require the worlds posited by some form of contingentism; (ii) ‘necessitarianism’ dissolves into an incoherent heap; and (iii) our best theories of properties and duplication require the worlds posited by the quiddistic version of contingentism. I conclude that quiddistic contingentism is the best view of the metaphysics.

Opposition to quidditism, however, typically focuses on skeptical fears. *If* quidditism generates some form of skepticism, then such a result might well overturn the scales. So it remains to consider whether quiddistic contingentism entails quiddistic skepticism.

## 3.

Does quiddistic contingentism entail quiddistic skepticism? That is, does allowing worlds differing solely over which properties confer which powers generate some form of skepticism?

*Quiddistic Skepticism?*: The argument from skepticism begins with the observation that if there were worlds merely quiddistically different from actuality, we would have no way to *discriminate* between them. Such quiddistic possibilities are then held to constitute *skeptical scenarios* with respect to our knowledge of which properties exist. The argument then runs:

- (22) If there are worlds that differ solely over which property confers which power, then we do not know which properties exist;
- (23) We do know which properties exist;
- (24) Therefore: there aren’t worlds that differ solely over which property confers which power.<sup>21</sup>

The crucial claim here is (22), which may be further parsed as follows:

- (22.1) If there are worlds that differ solely over which property confers which power, then there is a world *w* distinct from actuality solely over which property confers which power;



- (22.2) If there is a world  $w$  distinct from actuality solely over which property confers which power, then we cannot discriminate between actuality and  $w$ ;
- (22.3) If we cannot discriminate between actuality and  $w$ , then we do not know whether actuality or  $w$  obtains;
- (22.4) If we do not know whether actuality or  $w$  obtains, then (since actuality and  $w$  differ over which properties exist) we do not know which properties exist;
- (22.5) Therefore: If there are worlds that differ solely over which property confers which power, then we do not know which properties exist.

Lewis (forthcoming) offers a detailed defense of (22.2), involving the Ramsey–Carnap–Lewis method for defining theoretical terms (Lewis, 1970). Begin with the O(ld)-language, which is assumed available to us before the introduction of ideal theory T, and which is assumed sufficient to express all possible observations (and which is assumed to be given a fixed interpretation). Then we can define the T-terms in the O-language, by conjoining the axiomatization of T, uniformly replacing the T-terms with variables, and prefixing the result with a unique existential quantifier  $\exists!$  for each variable. What results is the Ramsey sentence of T (this is essentially the strategy used to construct the Ramsified lawbook: section 1). Lewis then says:

O-language, we assumed, is rich enough to express all possible observations. Therefore any predictive success for T is equally a predictive success for the Ramsey sentence of T. Since the evidence for T consists in its record of predictive success, there is no way to gain evidence for T that is not equally evidence for the Ramsey sentence. . . Suppose [T] does indeed have multiple possible realizations, but only one of them is the actual realization. Then no possible observation can tell us which one is actual, because whichever one is actual, the Ramsey sentence will be true. There is indeed a true contingent proposition about which of the possible realizations is actual, but we can never gain evidence for this proposition, and so we can never know it. If there are multiple possible realizations, Humility follows.<sup>22</sup>

This skeptical argument spills over into a host of semantic, scientific, and methodological objections. The spill-over semantic objection is offered by Shoemaker:

[W]hat epistemological arguments show, in the first instance, is that if there are sets of properties whose members are identical with respect to their causal features, we necessarily lack the resources for referring to particular members of these sets... So if there are such properties, they don't fall within the extension of *our* term "property". Which seems to imply that if there are such properties, they aren't properties; which seems to imply that there are no such properties. (1998, p. 66)

The spill-over scientific objection is given by Blackburn:

Just as the molecular theory gives us only things with dispositions, so any conceivable improvement in science will give us only a better pattern of dispositions and powers. That's the way physics works. (1990, p. 62)

And here is Ellis and Lierse:

There is one argument against categorical realism, however, which appears to be decisive. This is the argument from Science. With few exceptions, the most fundamental properties that we know about are all dispositional. They are of the nature of powers, capacities, and propensities. (1994, p. 32)

The spill-over methodological objection is then voiced by Hawthorne: "We don't need quidditative extras in order to make sense of the world." (2001, p. 368) And: "Why posit from the armchair distinctions that are never needed by science?" (2001, p. 369)

If valid, the argument from skepticism (together with its resulting semantic, scientific, and methodological spill-overs) would call for *nomic* necessitarianism. The reason emerges from Lewis's explanation for why (22.2) holds: our evidence can only discriminate between different Ramsey sentences, e.g., different nomological structures. The level of observational equivalence is the level of structural equivalence. That is, as soon as one recognizes the worlds countenanced by causal necessitarianism, such as a world with properties F, G, H, and I, and laws:  $F \Rightarrow H$  and  $G \Rightarrow I$  (section 1), one has recognized indiscriminable hypotheses. There is nothing to tell an F from a G.<sup>23</sup> Thus (as mentioned in section 2), the argument from skepticism calls for nomic necessitarianism.

"*Necessitarian*" *Skepticism*: Though the argument from skepticism calls for nomic necessitarianism, such is at best a *Pyrrhic victory* for the necessitarian. Given the epistemic prin-

principles embedded in (22)–(24), skepticism about properties is easily reinstated by two other routes. The first route to reinstatement is via *standard skeptical scenarios about the external world in general*, such as being a brain-in-a-vat, or dreaming. These scenarios are nomologically possible, and so possible on any view on the table here (section 1). Given the assumption that indiscriminable counter-possibilities ruin knowledge as embedded in (22.3), these scenarios already rob us of all knowledge of the properties anyway. Thus let  $w$  be a world with a property distribution different from actuality, in which one's counterpart dreams of the actual world. Then one cannot discriminate between actuality and  $w$ , and so one ought to suffer whatever failure of knowledge follows therefrom. (Here what is wrong with the argument from skepticism begins to emerge. The solution to the brain-in-a-vat and dreaming scenarios is not to decree them metaphysically impossible (!), but rather to explain how knowledge can withstand them.)

The second route to reinstating skepticism about properties is via the lingering *epistemic possibilities*. Consider the scenario that charge obeys an anti-Coulombic law, and that all of our current evidence otherwise is due to a massive practical joke. The nomic necessitarian will decree such a scenario to be metaphysically impossible. She will say that it is a *merely epistemic* possibility (c.f. the Kripkean reply to conceivability: section 2). But epistemic possibility is all the skeptic ever needed! If the scenario is epistemically possible, then it seems that one does not *know* that it is false, and so by closure one cannot know the falsity of anything it entails. *Morale*: downgrading a scenario from metaphysically to epistemically possible cannot help our epistemic position. Given what the argument from skepticism supposes about knowledge, neither necessitarianism nor anti-quidditism could rescue us.

*Quiddistic Knowledge*: How, if at all, does quiddistic skepticism differ from standard skeptical worries about the external world? In what remains I will argue that (i) quiddistic skepticism is just a *species* of skepticism about the external world; and (ii) whatever answer one offers to skepticism about the external world will *thereby* answer quiddistic skepticism.

Quiddistic skepticism is just a species of skepticism about the external world. That is, there is nothing in the epistemic reasoning embedded in (22)–(24) that differs from the epistemic reasoning in standard skeptical arguments against knowledge of the external world. Thus one can extend (or perhaps parody) the argument for quiddistic skepticism to an argument for external world skepticism, as follows:

- (25) If there is a difference between appearance and reality, then we do not know what is real;
- (26) But we do know what is real;
- (27) Therefore: there is no difference between appearance and reality.<sup>24</sup>

And one could further extend (22.1)–(22.5) as follows:

- (25.1) If there are worlds that differ solely over which reality confers which appearance, then there is a world  $w$  distinct from actuality solely over which reality confers which appearance;
- (25.2) If there is a world  $w$  distinct from actuality solely over which reality confers which appearance, then we cannot discriminate between actuality and  $w$ ;
- (25.3) If we cannot discriminate between actuality and  $w$ , then we do not know whether actuality or  $w$  obtains;
- (25.4) If we do not know whether actuality or  $w$  obtains, then (since actuality and  $w$  differ over what is real) we do not know what is real;
- (25.5) Therefore: If there are worlds that differ solely over which reality confers which appearance, then we do not know what is real.

Thus quiddistic skepticism is just a species of skepticism about the external world. Specifically, it is skepticism about the quiddistic aspect of the external world.<sup>25</sup>

Whatever answer one offers to skepticism about the external world will thereby answer quiddistic skepticism. Answers to external world skepticism may be usefully divided into (i) *incompatibilist* answers, on which ordinary knowledge and

skeptical doubt are in competition; and (ii) *compatibilist* answers, on which ordinary knowledge and skeptical doubt can coexist. Incompatibilist answers may be usefully subdivided into (ia) *skeptical* answers, on which skeptical doubt is victorious; and (ib) *dogmatic* answers, on which ordinary knowledge is victorious. Compatibilist answers may be usefully subdivided into (iia) *anti-closure* answers, on which ordinary knowledge and skeptical doubt can coexist in the same knowledge relation; and (iib) *contextualist* answers, on which ordinary knowledge and skeptical doubt can coexist by being cordoned off into distinct knowledge relations referred to in distinct contexts.

The skeptic (Peter Unger, 1975; Bredo Johnsen, 2001) has the following answer to quiddistic skepticism: *indeed!* That is, just as the skeptic thinks that we can have no knowledge of the external world, so she should think that we can have no knowledge of its quiddistic aspect – she will already be committed to denying the knowledge thesis of (23). She will find no reason to revise her metaphysics on this score.

The dogmatist claims to know that skeptical scenarios fail to obtain. Dogmatism comes in many forms, of which I shall distinguish three: (iib $\alpha$ ) *deductionism* (Peter Klein, 1981), on which one can know that skeptical scenarios fail to obtain by starting with ordinary knowledge and reasoning through the closure inference; (iib $\beta$ ) *direct realism* (William Brewer, 1999, Timothy Williamson, 2000), on which one can know that skeptical scenarios fail to obtain by directly perceiving the real external world; and (iib $\gamma$ ) *abductionism* (Jonathan Vogel, 1990), on which one can know that skeptical scenarios fail to obtain through an inference to the best explanation. The deductionist has the following answer to quiddistic skepticism: *eliminable!* That is, just as the deductionist claims that by starting with one's knowledge that one has hands, one can come to know that the external world is real, so she should claim that by starting with one's knowledge that, for instance, this brick has mass, one can come to know the quiddities. The same deductive moves are available in both cases. The direct realist has the following answer to quiddistic skepticism: *perceivable!* That is, just as the direct realist claims to directly perceive external

world objects, so she should claim to directly perceive the quiddities. Put your finger in the socket, she might counsel, and one can directly perceive *charge*.<sup>26</sup> The abductionist has the following answer to quiddistic skepticism: *inferior!* That is, just as the abductionist claims that skeptical scenarios constitute poor explanations of the appearances, so she should claim that quiddity swapping scenarios constitute more complex, less conservative, or at least somehow inferior explanations of the powers (Armstrong, 1999, p. 35).<sup>27</sup>

The anti-closure theorist claims that skeptical scenarios fail to threaten knowledge. I shall distinguish three forms of anti-closure theories: (iiia $\alpha$ ) *anti-closure relevantism* (Fred Dretske, 1970, 1981), on which one can fail to know that  $\sim q$  for some  $q$  that entails  $\sim p$ , and yet still know that  $p$  because  $q$  is not a relevant alternative to  $p$ ; (iiib $\beta$ ) *anti-closure tracking* (Robert Nozick, 1981), on which one can fail to know that  $\sim q$  for some  $q$  that entails  $\sim p$ , and yet still know that  $p$  because one can track the truth out to the nearest  $\sim p$ -world; and (iiib $\gamma$ ) *anti-closure reliabilism* (the anti-closure extension of Alvin Goldman, 1979; Mark Heller, 1999), on which one can fail to know that  $\sim q$  for some  $q$  that entails  $\sim p$ , and yet still know that  $p$  because one does come to believe  $p$  through a belief-forming process that is in fact reliable. The anti-closure relevantist has the following answer to quiddistic skepticism: *irrelevant!* That is, just as the anti-closure relevantist claims that brain-in-a-vat scenarios are irrelevant to my knowledge of where I parked my car, so that she should say that quiddity swapping scenarios are irrelevant to my knowledge that an electron has charge. Though in both cases it is notoriously difficult to say which scenarios should be relevant. The anti-closure tracking theorist has the following answer to quiddistic skepticism: *too distant!* That is, just as the anti-closure tracking theorist claims that, to know that one has hands, it suffices to track the truth of this claim only out to the nearest handless-ness world (which is presumably nearer than any skeptical scenario), so she should say, in order to know that the electron has one unit negative charge, it suffices to track the truth of this claim only out to the nearest world in which the electron has a different charge (which is presumably nearer than

any quiddity-swapping world). The anti-closure reliabilist has the following answer to quiddistic skepticism: *hypothetical!* That is, just as the anti-closure reliabilist claims that, to know that one has hands, it suffices that the process by which this belief was formed (visual perception?) is actually generally reliable, so she should claim that to know that the electron has charge, it suffices that the process (measurement?) is actually generally reliable. Though in both cases it is notoriously difficult to say how general a type of belief-formation process should be invoked.

The contextualist (Stewart Cohen, 1988, 1999; Keith DeRose, 1995; David Lewis, 1996) has the following answer to quiddistic skepticism: *elusive!* That is, just as the contextualist allows that claims to know that one has hands count as true when skeptical scenarios are not salient, so she should allow that claims to know which properties exist count as true when quiddity-swapping scenarios are not salient.<sup>28</sup> Likewise, just as the contextualist allows that claims to know that one has hands count as false when skeptical scenarios become relevant, so she should allow that claims to know which properties exist count as false when quiddity-swapping scenarios become salient. But the contextualist should not concede that a context in which skeptical and/or quiddity-swapping scenarios are irrelevant is thereby defective.<sup>29</sup>

It emerges that virtually *any* account of knowledge resolves quiddistic skepticism. Quiddistic knowledge is possible in the same way that knowledge of the external world is possible, whatever that may be, if at all. This should not be surprising. Quiddities just are one feature of the external world.

By way of conclusion, I would note that there is one answer to external world skepticism that I have not discussed, which is that skeptical scenarios are *metaphysically impossible*. On this view, one cannot be a brain-in-a-vat, under the spell of the demon, or dreaming. This answer is the analogue of the answer that quiddistic differences must be metaphysically impossible, in that it accepts (27) by the analogous argument as produced the anti-quiddistic thesis of (24). I trust, though, that few will find such metaphysical anti-skepticism attractive (especially the necessitarians, who typically cast themselves as robust metaphysical realists about the external world). It is metaphysically

implausible. And it does not solve the skeptical problem. For (i) even if it is somehow metaphysically impossible that one has always been a brain-in-a-vat (Hilary Putnam 1981), skepticism can still be reinstated through the dreaming scenario, or the scenario that one is envatted just for the day; and (ii) even if it is metaphysically impossible that any skeptical scenarios obtain, skepticism is reinstated as long as any of these scenarios is at least epistemically possible. Thus, I counsel rejection of metaphysical anti-skepticism, as metaphysically implausible and epistemically unhelpful. I counsel rejection of metaphysical anti-quidditism for the same reasons.<sup>30</sup>

#### NOTES

<sup>1</sup> Necessitarians have generally not been explicit as to whether they are of the modal, nomic, or causal stripe (and it does not help that various arguments for “necessitarianism” point in different directions: section 2). William Kneale (1949) and Chris Swoyer (1982) might best be thought of as modal necessitarians. Martin Tweedale (1984), John Bigelow, Brian Ellis, and Caroline Lierse (1992; also Ellis and Lierse, 1994, Ellis, 1999; Ellis, 2001), Evan Fales (1993), and Max Kistler (forthcoming) might best be thought of as nomic necessitarians. Rom Harre (1970; see also Harre and Madden, 1975), Sydney Shoemaker (1980, 1998), and C.B. Martin (1993) might best be thought of as causal necessitarians. But I regard any such classification as largely indeterminate.

<sup>2</sup> A *quiddity* is the “suchness” of a property. It is its intrinsic nature. If a property such as charge confers different powers at different worlds, then what unifies these instances as many instances of one property is their quiddity, their common nature. A quiddity is in some ways (see section 2) analogous to a *haecceity*, understood as the “thisness” of an individual. Etymologically, “quiddity” traces back to Duns Scotus, and the scholastic formula: *Quid est* (what is it)? *Talis est quidditas* (what follows is its essence). Webster’s Dictionary offers two definitions of “quiddity”: “a trifling point: quibble”, and “whatever makes something to be of the type that it is: essence”. No doubt these senses are related.

<sup>3</sup> Here the anti-quiddistic contingentist follows Lewis’s anti-haecceistic line:

Our problem rests on the presupposition that differences between possibilities are differences between possible worlds. Abandon that presupposition and the problem solves itself. We satisfy the haecceitist’s intuitions on the cheap, giving him the distinctions between possibilities that he rightly



demands without buying into any mysterious non-qualitative aspects of the world. (1986, p. 230)

<sup>4</sup> Contingentists have generally been explicit about whether or not they are quidditists. Anti-quiddistic contingentists include Denis Robinson (1993), Mark Heller (1998), Robert Black (2000), and John Hawthorne (2001). Quiddistic contingentists include David Armstrong (1999) and Lewis (forthcoming).

<sup>5</sup> For present purposes, I am simply taking possible worlds for granted (much like one might take numbers for granted, while still having ontological concerns). But note that one need not be any sort of modal realist to accept connections between possible worlds, modality, counterfactuals, and the rest. The combinatorialist, linguistic ersatzist, and modal fictionalist will accept such connections as well. They will just attempt to reduce possible worlds, or to deny ontological commitment thereto. Indeed, even the philosopher who would disdain possible worlds entirely save as a “nice heuristic” may accept such connections – she will just insist that these connections must ultimately be delivered in other terms.

<sup>6</sup> The account in the main text is due to Robert Stalnaker (1968). Lewis (1973) offers the following amendment:  $p > q$  is true iff: if there are any  $p$ -worlds, then some  $p \& q$ -world is closer than any  $p \& \sim q$ -world. The differences between the Stalnaker and Lewis accounts won't matter for present purposes.

<sup>7</sup> As Bas van Fraassen comments in this regard:

Wood burns when heated, because wood must burn when heated. And it must burn because of the laws which govern the behavior of the chemical elements of which wood and the surrounding air are composed. Bodies do not fall by chance; they must fall because of the law of gravity. In such examples we see a close connection between ‘law’ and ‘must’... (1989, p. 28)

<sup>8</sup> Thus Swoyer argues: “But if [laws are contingent], what assurance do we have that  $g$  and  $f$  will be nomically related in counterfactual situations? There is no guarantee that they will be.” (1982, p. 209; see also Tweedale, 1984, pp. 185–186; and Fales, 1993, pp. 126–131)

<sup>9</sup> Though the nomic and causal necessitarian can endorse a restricted principle of necessity: in all possible worlds, *if charge exists*, then like charges repel.

<sup>10</sup> See especially Angelika Kratzer (1977). Kratzer implements the contextual variability of modal discourse in terms of a variable accessibility parameter.

<sup>11</sup> Fales rejects the contingentist nearness-based solution as overly conventional:

So it is with law-supported counterfactuals. Conventions have a role here, too. They tell us, roughly, to hold fixed all causally relevant aspects of a situation except those to be counterfactually varied. But they could not

instruct us to ‘hold fixed’ the supporting law itself. Were they to do that, the truth of the counterfactual would become a mere artifact of convention. . . . To objectively ground a counterfactual, a law must itself be necessary. Only thus will what happens in worlds whose antecedent conditions differ from ours be a matter of objective and determinate fact. (1993, p. 128)

I fail to understand the complaint. The background facts and the laws seem perfectly on par. Both must be determined to get an objective and determinate fact as to what will result. But if the convention of fixing the background facts by the actual world is no barrier to objectivity, why is the convention of fixing the laws by the actual world suddenly problematic? I think that holding fixed the facts and the laws (to the maximal extent compossible with the antecedent) is simply *constitutive* of the *counterfactual* conditional. So constituted, such a conditional may well be perfectly objective.

<sup>12</sup> As David Hume remarks: “Tis an establish’d maxim in metaphysics, *That whatever the mind clearly conceives includes the idea of possible existence*, or in other words, *that nothing we imagine is absolutely impossible.*” (1978 [1739], p. 32)

<sup>13</sup> The combinatorial argument features in Lewis (forthcoming): “Combinatorialism tells us that the laws of nature are contingent. Let it be a law that every F is a G; combinatorialism generates a possibility in which an F is not a G, so that this law is violated.”

<sup>14</sup> Or at least, this is the most plausible necessitarian reply. The necessitarian might also simply dismiss propositions and conceivability as guides to possibility in any sense. But this would be overkill. First, the purported counterexamples of conceivable impossibilities seem to fall into two broad classes: (i) the negations of necessary truths known *a posteriori*, as in the case of the identity of water and H<sub>2</sub>O, and of Hesperus and Phosphorus; and (ii) the negations of necessary truths too complex for human knowledge, as perhaps with either Goldbach’s conjecture or its negation (David Chalmers, 2002, p. 146). This suggests that it is at least sufficient to restrict conceivability as a guide to possibility rather than reject it outright. Second, conceivability seems to be our main guide to knowledge of what is possible. This suggests that it is preferable to restrict conceivability rather than reject it outright, on pain of modal skepticism. Thus, I will focus on the necessitarian who offers a principled Kripkean explanation for why conceivability fails to indicate possibility in the case at hand.

<sup>15</sup> Indeed, Kripke himself seems open to this extension of his view: “Physical necessity, *might* turn out to be necessity in the highest degree. But that’s a question which I don’t wish to prejudge.” (1980, p. 99)

<sup>16</sup> Shoemaker is alive to this problem, and suggests the following motivating principle: (i) laws cannot vary across times; (ii) modal variation is analogous to temporal variation; hence (iii) laws cannot vary across worlds (1998, pp. 68–70). This is supposed to provide independent reason for

thinking that a misdescription has taken place. But the modal-temporal analogy in (ii) breaks down (unlike the necessity of identity). Here are some examples of temporally invariant but modally variable properties: historical properties, such as being the son of an architect; eternal properties, such as hearing Saul Kripke on January 20th of 1970; and totality properties, such as being in a world without schmarge. Indeed, laws, at least on certain regularity theories, are eternal properties insofar as they summarize the spatiotemporal distribution of occurrent properties. Thus it seems that the modal-temporal analogy breaks at just the crucial point.

<sup>17</sup> The necessitarian might reply that her view is only meant to apply to the *sparse* properties that “carve nature at the joints”. She might then hold that epistemic properties like believing and perceiving are not sparse (though see Schaffer (2004) for arguments otherwise), and are thereby exempted.

<sup>18</sup> Perhaps the necessitarian can allow *some* recombination of actual existences, provided that she can backtrack in precisely the right way. In order to recombine actual existences  $x$  and  $y$ , she would need the supposition that  $x$  does not occur to be treated as backtracking to a Big Bang that would evolve to  $y$  without  $x$  (likewise for the supposition that  $y$  does not occur). Perhaps sometimes this is possible. But, I suspect, it will still drastically limit recombination of actual elements, far beyond what intuition permits. (As Stephen Leuenberger pointed out to me, it would also render the prospects for recombination entirely *a posteriori*. One might have thought that it was *a priori* that actual existences such as this coffee mug here and that chocolate bar there were amenable to recombination.)

<sup>19</sup> One need not be a class nominalist to endorse connections between possible worlds and properties. The universals-theorist and trope-theorist will accept such connections too. They will just think that the class of possible objects is determined by the identity of the universal or the exact resemblances among the tropes.

<sup>20</sup> Trope resemblance, insofar as it is supposed to be purely qualitative and intrinsic, seems already to presuppose quiddity. Trope resemblance is quiddistic resemblance.

<sup>21</sup> Shoemaker is perhaps the prime source for such skeptical anxieties:

The supposition that these possibilities are genuine implies... that it is impossible for us to know various things which we take ourselves to know... [I]f the properties and causal potentialities of a thing can vary independently of one another, then it is impossible for us to know (or have any good reason for believing) that something has retained a property over time, or that something has undergone a change with respect to the properties that underlie its causal powers. (1980, p. 215; see also Simon Blackburn, 1992, pp. 62–63; Robinson, 1993, p. 31; Shoemaker, 1998, pp. 65–66; Frank Jackson, 1998, pp. 23–24; Black, 2000, pp. 94–95; and Lewis, forthcoming)

<sup>22</sup> Lewis sees nothing overly problematic in such a skeptical consequence, and so would reject the knowledge claim of (23): “Why is Humility “ominous”? Who ever promised me that I was capable in principle of knowing everything?” (forthcoming) Jackson (1998) is also sympathetic to this line.

<sup>23</sup> Could one tell an F from a G by their effects, by whether what follows is an H or an I? Only if one could tell an H from I. And the only foothold on that distinction seems to be what we wanted to know in the first place, namely whether their cause is an F or a G. There is no discriminatory *foothold* here.

<sup>24</sup> In a more familiar but essentially equivalent formulation:

(25') If there is a difference between being embodied and being envatted, then Moore does not know that he has hands;

(26') But Moore does know that he has hands;

(27') Therefore: there is no difference between being embodied and being envatted.

I should note that the most familiar formulation of this argument in the epistemological literature takes for granted that there is a difference between being embodied and being envatted (for good reason!), and replaces the antecedent of (25') with: “If Moore does not know that he is not envatted, ...” (with (27') changed correspondingly). But this antecedent will be motivated on grounds that (i) embodiment and envattment are different scenarios, yet (ii) one's evidence cannot discriminate between them.

<sup>25</sup> All the semantic, scientific, and methodological spill-overs of the skeptical argument against quiddities can be extended as well. Semantically, it might seem as if we lack the resources for referring to real distinctions with no apparent foothold. Scientifically, it might seem as if science has no need for the notion of reality, and simply gives us a systematization of the appearances. Methodologically, it might seem as if we have no need to posit an armchair distinction between appearance and reality unneeded by science.

<sup>26</sup> Indeed, direct realism with respect to the quiddities may be more plausible than direct realism with respect to external world objects. For it might be claimed that *conscious experience* gives us direct access to quiddities, or at least, that conscious experience gives us direct access to at least some quiddities, namely those of mental states. This latter was Bertrand Russell's view: “As regards the world in general, both physical and mental, everything that we know of its intrinsic character is derived from the mental side, and almost everything that we know of its causal laws is derived from the physical side.” (1927, p. 402) See Hawthorne (2001, pp. 371–372) for further discussion of these issues.

<sup>27</sup> *Complication*: It is not obvious that the external world hypothesis is preferable to the dreaming or the demon hypotheses. The external world hypothesis is certainly not simplest: the dreaming hypothesis posits the same ontology; and the demon hypothesis need posit only thinker and demon (while the solipsistic hypothesis is simplest of all). Here it is worth distin-

guishing *shifting* from *stable* skeptical scenarios. A shifting skeptical scenario has the external world supplying the appearances at first, then the demon takes over, then the external world returns, etc. A stable skeptical scenario has the demon in charge all the way through. Shifting skeptical scenarios are indeed more complex than the external world hypothesis. Stable skeptical scenarios, though, need not be, and if the abductionist has any leverage against these, it can only be on grounds of overall methodological conservatism.

These complications with external world skepticism are mirrored with quiddistic skepticism. A shifting quiddistic skeptical scenario has quiddities conferring different powers at different times, and is indeed more complex than any stable quiddity scenario. A stable quiddistic skeptical scenario though (such as all those considered in the main text), need not be more complex, and if the quiddistic abductionist has any leverage against these, it can only be on grounds of overall methodological conservatism.

Given these complications, it is unfortunate that both Shoemaker (1980) and Armstrong (1999) only consider abductionist dogmatism, especially since they are virtually the only parties to this discussion to consider *any* theories of knowledge whatsoever (Hawthorne, 2001 being a welcome exception).

<sup>28</sup> On the related *contrastive* view of knowledge (Schaffer, 2005), what is going on here can be formulated as follows. Let  $w1$  be a world which is structurally and quiddistically different from actuality, and let  $w2$  be a world which is merely quiddistically different from actuality. Then one can know that actuality obtains *rather than*  $w1$ , but one cannot know that actuality obtains *rather than*  $w2$ . This expresses our partial quiddistic knowledge. Now let  $w3$  be a world in which Moore is veridically perceiving stumps, and let  $w4$  be a world in which Moore is a brain-in-a-vat hallucinating hands. Then Moore can know that he is in actuality rather than  $w3$ , but Moore cannot know that he is in actuality rather than  $w4$ . This expresses our analogously partial external world knowledge.

<sup>29</sup> As Lewis writes, commenting on Unger's skeptical invariantism:

Indeed the rule of accommodation permits Unger to create a context in which all that he says is true, but that does not show that there is anything whatsoever wrong with the claims to certainty that we make in more ordinary contexts. It is no fault of a context that we can move out of it. (1983b [1979], p. 246)

Compare, though, the following passage from "Ramseyan Humility", where it seems as if Lewis has slipped into the skeptical view that the more demanding context is somehow the 'right' one:

We may know [the properties] as role-occupants, including both their roles in scientific theory and their roles in daily life, and that might pass for 'knowing what they are' by lax and commonplace standards. But... in a

more demanding sense we do not know what they are, no matter how familiar we may be with them. (forthcoming).

<sup>30</sup> Thanks to Phil Bricker, Dave Chalmers, Mark Heller, Carl Gillet, Seahwa Kim, Stephan Leuenberger, Kris McDaniel, Brian McLaughlin, Ted Sider, Gabriel Uzquiano, and to the audience at the Bellingham Summer Philosophy Conference. I am grateful to Kluwer and to Oxford University Press for allowing this paper to be bilocated.

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