

IDENTITIES, DISTINCTNESSES, TRUTHMAKERS, AND  
INDISCERNIBILITY PRINCIPLES\*

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In section 1 of this paper, after some remarks about terminology, I'll express a degree of scepticism about truthmaker projects. In section 2 I shall turn to my principal concern, which is to discuss some aspects of what makes identities and (especially) distinctnesses true. (I call every case of an  $x$  and  $y$ , such that  $x$  is identical with  $y$ , “an identity”, and I call every case of an  $x$  and  $y$ , such that  $x$  is distinct from (i.e. not identical with)  $y$ , “a distinctness”.)

1. *Terminological stipulations and introductory remarks*

I'll use “truthmaking” to refer to the relation between an entity  $x$  and a truth-bearer (such as a sentence, judgement, belief or proposition),  $p$ , such that the existence of  $x$  suffices necessarily or unconditionally, for the truth of  $p$ . In this case, I'll say that  $x$  is a truthmaker for  $p$ ; and I'll say that a truth-bearer *needs* a truthmaker if that truth-bearer could not be true without some truthmaker for it existing. By “truthmaker principles” I'll refer to general principles asserting of truth-bearers of given sorts —each sentence of a given sort, each proposition of a given sort, etc.— that each of them needs a truthmaker —or else (perhaps) stands in some specified logical or semantic relationship to a truth-bearer that needs a truthmaker. (For example: a truthmaker principle might say that every atomic sentence either needs a truthmaker, or has a

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contradictory that needs a truthmaker.) By a “truthmaker project” I’ll mean a project aiming systematically to enumerate truthmaker principles, and to articulate an ontology of truthmakers to suit.

All this I take to be fairly standard. But people do vary in what they mean by “truthmakers”, as well as in endorsing a range of different truthmaker principles. One who means more than is specified above, by calling something a “truthmaker”, is Barry Smith.<sup>1</sup> Smith takes it as necessary, but not sufficient, for something’s being a truthmaker for some judgement (judgements being the truthbearers on which he focuses), that its existence necessitates the truth of that judgement. But an additional necessary condition is associated with the notion of a “projection”, which in turn is associated with the *contents* of judgements and related mental acts such as perceptions. Thus Smith says, *inter alia*, “Truthmakers, like visual fields, are cognition-dependent entities which exist only as a result of certain sorts of cognitively effected demarcations of reality”.<sup>2</sup>

On the other hand, one who means less than I do, by calling something a “truthmaker”, is Josh Parsons, who says:

“This assertion, that every true sentence’s truth supervenes on the nature of some thing, is what I will mean by the ‘truthmaker principle’.

To put this another way, for every true sentence, there is some thing such that the sentence cannot become false without a qualitative change, a non-Cambridge change, in that thing. That thing, whatever it is, is the sentence’s truthmaker. Or, the truthmaker for a sentence is that thing that is intrinsically such that the sentence is true.”<sup>3</sup>

This is a weaker or less demanding sense of “truthmaking” than the generic one I sketched above, since for an entity  $x$  to be in this sense a truthmaker for a given  $p$ , it is not required that  $x$ ’s existence suffices unconditionally or necessarily for  $p$ ’s truth, merely that it suffices conditionally on  $x$ ’s having, possibly contingently, the qualities it actually has. (Parsons calls a more typical view “truthmaker essentialism”. Note that being true conditionally on  $x$ ’s existence equates to being true conditional on  $x$ ’s having any of its essential properties, assuming something must exist to have its essential properties.)

Parsons *needs* a weaker-than-usual notion of truthmaking to improve the plausibility of his truthmaker principle, which is rather strong in that it speaks

<sup>1</sup> Smith (1999).

<sup>2</sup> Smith (1999), p. 289.

<sup>3</sup> Parsons (1999), p. 327.

quite unrestrictedly of true sentences. Even so, I have reservations about Parsons's truthmaker principle as stated.

i) First, a quibble. Talking of something "becoming true" and of "Cambridge change" injects an inappropriate temporal connotation into Parsons's remarks. Better would be: "there is some thing such that the sentence could not have been false without that thing being different in some non-merely-Cambridge way".

ii) Phrases such as "that thing" imply that there is some *one* thing which would need to have been different for a given truth to have been false. Typically wrong, surely, except on some very liberal interpretation of "thing". Some cases: "there are brown dogs" intuitively has many truthmakers —the several brown dogs. All of them would have had to have been different, either in colour, or in existence, for that sentence to have been false. (Whether never having existed, as opposed to existing, is a "qualitative difference" in a thing, is a nice question.) One candidate, then, for being "the" thing which would have had to have been qualitatively different for that sentence to have been false, is the fusion of all those dogs. But then it's true of any larger "thing" of which that "thing" is a part —not excluding the whole world— that it would have had to have been qualitatively different for that sentence to have been false, since a qualitative difference in a part of a thing is a qualitative difference in that thing. Interpreting Parsons as meaning to refer to the *minimal* thing such that the given sentence could not have been false without that thing being qualitatively different might restore uniqueness. But it would leave us with a definition of truthmaking such that individual brown dogs would not count as truthmakers for "there are brown dogs".

Supposing "all dogs bark" to be true gives us another example. Here it's hard to see that we can stop short of the whole world, if we look for something which would have *had* to have been qualitatively or intrinsically different for that sentence to have been false (even counting non-existence as opposed to existence as a qualitative difference). The fusion of the actual dogs is of course not a "thing" which would have had to have been different to falsify it, since the mere existence of an additional, non-barking, dog would suffice.

Necessary truths, finally, should perhaps be set aside here, whether we go with Parsons's weaker notion of truthmaking, or the more usual notion sketched at the outset. Trivially, any thing —the whole world included— is a thing such that it is impossible that any given necessary truth should have been false without that thing having been different, since it is impossible that any given necessary truth should have been false. And any thing is a thing such that its existence suffices necessarily or unconditionally for the truth of any necessary truth. Thus on either view, we could say that everything is a truthmaker for any necessary truth. But if it is not a necessary truth that anything exists, necessary truths would seem not to *need* truthmakers, and

even if it is a necessary truth, a notion of truthmaking so indiscriminating that absolutely anything would do it equally well, has little to recommend it. We might as well say that nothing is a truthmaker for any necessary truth. The latter is my preferred option.

*Scepticism about truthmaker projects*

Even taking into account such reservations, Parsons' principle needs considerable weakening. Something along the lines of "every contingent truth supervenes on the natures of things, in the sense that it could not have been false without some difference, either in what exists, or in what qualities and relations existing things have" seems plausible to me, and is one way of interpreting the slogan "truth supervenes on being".<sup>4</sup> But even so, I remain something of a sceptic about truthmaker projects, at least those that employ the more usual notion of truthmaking in which truthmakers make truths true merely by existing (Parsons' "truthmaker essentialism"). And I'm specially sceptical whether general truthmaking principles which are precisely formulated and specific in scope can pull much weight in deciding between rival views in ontology. It's not that one can't plausibly cry "cherchez le truthmaker" when faced with particular alleged truths which (under some proposed analysis) seem intuitively dubious for lack of any thing to make them true. But in generalizing from such intuitions, specifying their scope, making precise their content, and bringing them to bear on controversial cases, I believe that theory-ladenness is all too likely to set in, generating at the end of the day something closer to an additional epicycle in an established metaphysical system than to a Moorean filter for metaphysical mistakes.

One aspect of my scepticism is the following. Generic truthmaker claims will typically concern either specific kinds of sentences —negative existentials, simple monadic predications, universal generalizations, and the like— or else corresponding kinds of propositions. Now regardless of one's theory of propositions, the general idea is that sentences express them, and that distinct sentences constrain reality equivalently, or carry the same information about reality, if and only if they express the same proposition.<sup>5</sup> Furthermore, our usual way of referring to, individuating or classifying propositions, is by use or mention of sentences which express them. But not all theories of propositions view them as structured in a sentence-like manner (for instance, some possible worlds theorists view them as sets of possible worlds). One might, for this reason, hesitate about attempts to formulate general claims

<sup>4</sup>The phrase is due to John Bigelow: see Bigelow (1988), pp. 132–3.

<sup>5</sup>Glossing over some issues about *de se* content. See Lewis (1979).

about what is generically required of reality for certain kinds of *sentences* to be true. If what a sentence requires of reality, to be true, is captured by the proposition that sentence expresses, and if propositions are not structured as sentences are, why should we expect sentences of a given type to correspond to a given type of demand on reality?

In a way this issue, or a close relative of it, goes back at least to Descartes, and his claim (for instance in the *Third Meditation*) that the ideas of *hot* and *cold* which belong to the imagination do not even enable us to know which of those opposites is positive, which a mere privation of the other. Certainly the words “hot” and “cold” don’t tell us which is which. The following kind of case makes a perhaps related point. Consider a sentence such as “Either this flower is red or this flower is orange”. One might think that this should be dealt with under the generic heading of “truthmakers for disjunctions” (expecting perhaps that truthmakers for a disjunction will naturally be subject to a tripartite division into those that make true just one disjunct, those that make true just the other, and those (if any) that make true both). But translate this particular disjunctive sentence into a language which has fewer colour words, lumping red and orange together as a single colour, and issues about “truthmaking for disjunctions” become irrelevant.

Such issues do not go away, but are merely differently represented, if we simply seek to generalize about the truth-requirements for propositions rather than for sentences —so long as we continue to classify propositions by reference to the kinds of sentences which express them. The question remains: if propositions are structured quite differently from sentences, why should we expect similarly-structured sentences to correlate with similarly-structured propositions, or to make similar demands on reality?

This doubt may be reinforced by noting that, as David Lewis points out<sup>6</sup>, our situation here is like our situation regarding the real numbers. We can form finite (or infinite but regularly repeating) decimal-notation names for only a minute atypical subset of the continuum-many real numbers, though this is good enough to enable us to think and reason in various ways about the rest. Similarly, we can give linguistic expression to only a minute subset of the propositions, thinking of the propositions as sets of possible worlds, or in some similar way. Mathematicians do prove theorems about the real numbers, but one suspects that restricting attention to real numbers expressible in various uniform ways —as it might be, by use of no more than twenty decimal places, or by using each of the digits from “0” to “9” an equal number of times— would impose severe limitations on those results. (Compare, for the converse point, numbers such as  $\pi$ , or  $\sqrt{2}$ , simply-defined numbers which notoriously lack neat decimal expansions.)

<sup>6</sup>In Lewis (1998).

Think too of the debate over the nature of mental representation. Some recent authors, in opposition to “language of thought” views, have suggested mental representation might be “map-like”<sup>7</sup>. What does this mean? Roughly, it means that however information about the world is stored in the brain, it is not stored in units having the kind of structure sentences have, and, by the same token, not stored in sentence-sized units. On a language-like view of mental representation (a so-called “language of thought” view), when we say in natural language something of the form “I believe that P”, where “P” is replaced by a sentence of natural language, the content of our utterance will typically be what is true according to some sentence-like unit of mental representation. But on a map-like view, when we say in natural language something of the form “I believe that P”, typically the content of our utterance of “P” will be some small part of what is true according to the totality of what is mentally represented in us, and will not correspond to any clearly-demarcated representational module within our total mental-representational state. Actual maps, and what we do when say such things as “according to this map, there is no large town North of us for at least 200 kilometres”, provide one model for how this can be. Usually there is no portion of the map whose content corresponds exactly to the content of such a statement. A map is structured, of course, but not structured as language is structured.

Now the world itself lies, so to speak, on the “map-like” rather than the “language-like”, side of this comparison. Not that the world is a system of representation: we speak not of what is true *according to* the world, merely of what is true *in or of* the world, or more simply, just of what is true, period. But here’s the analogy: just as it is not a requirement, for a sentence of some language to be able to say some of what is true according to a map, that the map be structured as language is, so it is not a requirement for a sentence of some language to be able to say some of what is true in reality, that the world be structured as language is.<sup>8</sup>

A natural reply to these remarks is to point out that *somehow* we turn the trick: language is systematic, and in a way which enables us systematically to know what is true according to individual sentences. We understand that “Some dog barked outside my window all night” requires for its truth the existence of a dog, which was barking throughout the night, and moreover that it was outdoors and within earshot of my window at the time. And so

<sup>7</sup> See for instance Lewis (1994) and Braddon-Mitchell and Jackson (1996).

<sup>8</sup> Despite important differences, some of the thoughts here expressed have some affinity with some of what John Heil says in Heil (2001), and even perhaps with some of what Mulligan, Simons, and Smith say in Mulligan, Simons and Smith (1984), in their negative remarks about what they call “the dogma of logical form”.

it goes for many another sentence. But though this shows, to be sure, that there must be *some* way in which structures in language systematically relate to structures in reality, it gives us no reason to believe that this relationship satisfies some further constraint, like one to the effect that, for each type  $S$  of sentences, there is a kind  $K$  of entities, such that a sentence of type  $S$  is true only if there exists a suitable entity of kind  $K$ . It gives us no reason to believe, given a pair of contrary sentences which differ by substitution of a single word (a predicate for instance), that there is a pair of entities such that one or the other entity will exist according to whether one or the other sentence is true. (Consider “Fred is rich” and “Fred is penniless”, for instance.) It gives us no reason, in other words, to believe that for every type of sentence, each sentence of that type requires for its truth a suitably distinctive truthmaker.

For one thing, sentences of distinct types may be logically interrelated, so that entities may well do multiple truthmaking duty in relation to sentences of different, but interrelated types. Sentences and their negations provide a simple example. Suppose  $S$  is some sentence which fails to be true for want of a truthmaker. That should suffice for truth of its negation. Why should the want of one truthmaker require the existence of some other “complementary” truthmaker? Is there really an anti-Santa Claus, an entity which makes it true that there is no Santa Claus? How about the anti-unicorn, which makes it true that there are no unicorns?

For another thing, it seems intuitively that sometimes truths turn, not on *which* things exist, but on *how* things exist —on the *ways* they are. Unless a *way* for something to be— red as opposed to blue, colourless as opposed to being coloured, larger than my head as opposed to smaller than it, far from any burning barn rather than close to one —is in every case itself an *entity* (presumably one distinct from entities which are that way), then it will simply be false that every kind of truth requires a distinct kind of truthmaker. And if ways of being *are* themselves entities, then presumably there will be truths about the ways *they* are. Regress threatens.

It’s illuminating to recall that we do have a systematic account of how the truth or falsity of at least some sentences depends on reality. This is the Tarskian model extolled by Davidson, among others. Given suitable definitions and axioms, we can state relations between individual words and reality, from which we may deduce, for each sentence  $s$ , a statement to the effect that  $s$  is true if and only if a certain condition is met. On one liberal way of interpreting the slogan “truth supervenes on being”, we thus show, for sentences to which Tarskian techniques may be applied, how truth supervenes on being. We do so, furthermore, without generally assigning truthmakers to truths. This feature can be traced back to the treatment of simple predicates. To each simple predicate we assign a satisfaction-condition —a condition which something must meet if it is to satisfy that predicate. Something  $x$

satisfies “is red”, for instance, just if  $x$  is red. There is no mention here of a “satisfaction-maker”: and given satisfaction-conditions we can derive truth-conditions without any need to introduce truthmakers at any point in the derivation.

But what does it take for a “condition” to be “met”? What if the obtaining of a truth-condition itself requires the existence of a truthmaker? To talk of a “condition” which must be met if a sentence is to be true, is to talk of a proposition which must be true if a sentence is to be true. If the Tarski model could be applied to propositions themselves, it would be useless, since the condition for a proposition to be true can only be the proposition itself. The triviality often attributed (unjustly, I believe) to Tarskian truth-theories for sentences, would seem to become genuine in such a case. But in fact, unless propositions themselves have structure somehow analogous to linguistic syntax, it is difficult to imagine how Tarskian methods could even begin to be applied to them.

Thus in exploring what to make of a slogan like “truth supervenes on being”, and whether and in what sense it should be accepted, it seems to me that we inevitably come to need to begin theorizing in a substantive way about propositions. But at this point, as David Lewis points out<sup>9</sup>, the notion of truth drops out and we are left, in effect, exploring the constraints to which we should see an ontology of propositions as conforming. (Given the T-schema, and any substantive theory of truth, truth drops out as a practically convenient but theoretically superfluous intermediary, and the substantive theory comes to be simply about how, in general, things are. Putting it another way, given the T-schema we can recognize that any substantive theory of truth entails a substantive theory about reality in general.)

On a possible worlds account of propositions, for instance, truthmaker principles translate into claims about the individuation criteria for possible worlds, and about the ways they may differ.<sup>10</sup> On a different theory of propositions, they will translate into claims of some other kind. The issue of the anti-Santa Claus and the anti-unicorn (truthmakers for, respectively, the truth that there is no Santa Claus, and that there are no unicorns) becomes the issue of whether some world (for instance our world), in order to differ from a world containing Santa Claus, or unicorns (that is, containing truthmakers for, respectively “Santa Claus exists” and “unicorns exist”) needs to contain something *else*, which that world lacks, and whose existence suffices

<sup>9</sup>In Lewis (1998).

<sup>10</sup>See Lewis (1998).

for the truth, respectively, of “there is no Santa Claus”, and “there are no unicorns”<sup>11</sup>.

For another kind of case, suppose two sentences entail a third. Then the existence of truthmakers for the first two will suffice for the truth of the third. No further truthmaker will be required for the third, so that adherence to truthmaker principles would appear to require us to regard the third as having for truthmaker some sort of fusion of, or logical construction out of, or part of the fusion of, the truthmakers for the first two. In other words, truthmaker theorists look set to saddle themselves with a mereology (or something similar) of truthmakers which suitably maps the entailment relations between sentences. Not all details of this truthmaker mereology will be able to be read directly off from structural or formal relations between sentences themselves, since such relations between sentences track only a subset of entailments. (For instance, the entailment of “Mary had a husband” by “Mary is a widow” depends entirely on the meaning relations between “husband” and “widow”.)

In short, a typical truthmaker project looks like the project of telling the ontological story required to underpin an account of sentences’ truth-conditions (in other words, an ontology of propositions), subject to an additional and obscurely motivated constraint roughly to the effect that every difference in how things are is a difference in respect of which things exist.<sup>12</sup> If it is true furthermore that we cannot rely on something like logical or syntactic form to enable us systematically to allocate truthmakers of given types to sentences of given types, it’s hard to see how an account of truthmaking can fail to be continuous with empirical investigations into the structure and nature of things, rather than being a branch of semantics in any traditional sense.

<sup>11</sup> Maybe this is not *quite* so simple a question as it might appear. Perhaps there’s somewhere such that, if there were a Santa Claus, that’s where he’d be. In that case, perhaps what currently occupies that place is (part of) a sufficient cause of there being no Santa Claus. But causal sufficiency is presumably not the kind of sufficiency truthmaker theorists are concerned with, and in any case the supposition that there is a place which is such that Santa would be there if he was anywhere, right now, despite the fact that actually something else sufficient to exclude him is there right now, is far from obvious. Perhaps it’s true that if Santa Claus existed he would be somewhere not actually currently occupied by anything which would prevent his presence there. But what does that require: a perfect vacuum? Can we say that a certain region of empty space is amongst the things which exist? And if the empty region exists just where Santa Claus would be if he existed, does that make the empty region a truthmaker for “Santa Claus does not exist”? I don’t know.

<sup>12</sup> I’m assuming that this (including “*every* difference”) holds according even to truthmaker projects which endorse truthmaker principles only in relation to some subset of truthbearers —e.g., to “atomic” truthbearers. For I take it such a restriction typically relies on the view that *all* truth supervenes on the truths belonging to the chosen subset.

(We do have a common-sense ontology of particular individuals, (middle-sized material objects foremost amongst them), and taken as a category these constitute something of a fixed point amongst rival ontologies, though rival accounts may be given of them and of their relationship to more contested categories such as substance, attribute, event and proposition. Semantic theories, Tarski-style truth-theories included, are thus almost unanimous in seeing singular terms as typically referring to individual members of this category, predicates as typically denoting or satisfied by many members of it, and so on. But even in this least-contentious of all semantic cases, we need, notoriously, to deviate from these paradigms (which may or may not involve distinguishing genuine singular terms from expressions which to some degree syntactically mimic them) in an assortment of cases including “nobody”, “the average man”, “Santa Claus”, “the weather”, the “it” of “it is raining”, “my smile”, “the ephemeral character of his good will”, “the horizon”, and so on.

Giving an account of what makes apparently true sentences involving such expressions true may largely rely on possessing a repertoire of devices for representing them as involving various kinds of “logical constructions”, fictional discourse, and the like. But when and how those devices are to be applied will not in general be determinable without drawing on the results of empirical inquiry into the world and its contents.

For an extreme example: some philosophers<sup>13</sup> have investigated a view dubbed by van Inwagen “Nihilism”, according to which it is never strictly and literally true that something is composed of other things. According to such views, the apparent existence of any composite thing (*a fortiori*, of any ordinary material object) must be given some alternative account—a fictionalist account, perhaps<sup>14</sup>—consistent with strictly and literally denying that any such thing exists. On such a view, only what is strictly and literally simple and without parts—the ultimately simple constituents of fundamental particles, points of space-time, or the like—will strictly and literally exist. On such a theory, truthmakers will be *precisely* those things which it is the task of fundamental science to discover—things of which, *qua* masters of ordinary language, we need have no knowledge. A major part of the *traditional* domain of semantics will concern, *not* truthmaking, but fiction-making.)

<sup>13</sup> Such as Peter van Inwagen and Cian Dorr; see van Inwagen (1990) and Dorr (2002).

<sup>14</sup> As suggested for instance in Dorr (2002).

## 2. *Truthmaking for Identities and Distinctnesses*

Enough of generic vague scepticism about systematic truthmaker projects. I turn now to some of the basic issues which arise as soon as one raises the question of truthmakers for identities and distinctnesses. Here is one case where logical entanglements between distinct kinds of sentences can quickly complicate matters.

If Fido exists it would seem to follow inevitably that Fido is identical with Fido. What if Fido doesn't exist? One option is to say that even then, the proposition that Fido is Fido is true. Then we might best say of Fido's identity with Fido that it is in the same boat as any other necessary truth. We raised the question of truthmakers for necessary truths, inconclusively, earlier. Perhaps we say that any contingent being is a truthmaker for every necessary truth; perhaps we say that necessary truths need no truthmakers (why should something which could not possibly be false need something to make it true?); perhaps we find some way to discriminate truthmakers even for necessary equivalents. Similar remarks will apply to distinctnesses, if (as is usual) we regard them too as necessary.

If Fido must exist for there to be truths about him, he would appear to count as a truthmaker both for his existence and for his identity with himself. Similarly, one might think, for distinctnesses. Consistency will require us to say that both Fido and Spot must exist for it to be true that Fido is distinct from Spot, and if so nothing more would seem to be required, beyond the existence of the pair of them, to make that true.

So far it looks as if identities and distinctnesses are special cases in which there is no need to invoke the more exotic kinds of entities —tropes, “thick” particulars, universals, “states of affairs”— which figure in the truthmaker literature, since creatures as mundane as Spot and Fido will suffice. But there ought to be more to be said since there is, in a sense, more to identity than identities. For it to be true that something which is  $F$  is  $G$ , something which is  $F$  must be identical with something which is  $G$ . (There is an equivalence between “ $(\exists x)(Fx \text{ and } Gx)$ ” and “ $(\exists x)(\exists y)(Fx \text{ and } Gy \text{ and } x = y)$ ”.) For it to be true that something is  $F$ , there must be something which is distinct from each non- $F$ . (From “ $(\exists x)Fx$ ”, “ $(\exists x)(\forall y)(\sim Fy \rightarrow x \neq y)$ ” follows.) I believe that the concepts of identity and distinctness figure implicitly in thought or language, as much by way of such contexts and connections, as through explicit identities and distinctnesses<sup>15</sup>. Such cases raise questions about what is involved in property-instantiations and co-instantiations, and hence lead to questions about what we might call “the structure of individuality”. And if we are to be faithful to truthmaker aspirations, they lead to a

<sup>15</sup> Cf. Evans (1975).

search for entities which by existing make true such truths as that a *single* individual has these and those properties, and that it is distinct from this other individual which has such and such different properties.

Thus it appears given these considerations, that there is little hope for an adequate account of truthmaking for simple predications which does not at the same time carry implications regarding truthmaking for identities and distinctnesses (and likewise vice versa). A condition of adequacy for an account of predication, or at least of property-ascription, will be that it successfully addresses the issue of when and how a pair of property-instantiations amount to a case of co-instantiation. Rather than embarking on a vast critical survey of generic accounts of predication, however, I shall here turn to consider briefly certain issues connected with distinctive kinds of cases of co-instantiation.

#### *Varieties of Co-Instantiation, and Identity Across Contexts*

Special cases of the issue of co-instantiation arise where the properties in question can be represented as indexed to times, places, or possible worlds—cases involving, as we say, identity “across” time, space or possible worlds. A four-dimensionalist, for instance, will view the co-instantiation by a single persisting entity of intrinsic properties indexed to distinct times, as the having of appropriate properties by distinct temporal parts of the persisting thing. Thus we arrive at one popularly debated account of “identity across time” for persisting things, in terms of maximal aggregates of suitably inter-related temporal parts.

Perhaps “individuality” has a different “structure”, depending on the kind of individual (physical, spiritual, abstract, substance, trope?) or on the kind of co-instantiation (across space? across time? across worlds?) which is involved. Further complications arise from such contexts due to the possibilities they present for various kinds of overlap. Issues about “constitution” and its relation to identity are amongst these. My own view that constitution is stage sharing, entails that identity is a limiting case of it, and since the occurrence of such limiting cases may depend on contingent events, this entails (the minority view) that some distinctnesses are after all in a sense contingent, threatening the simple suggestion above that distinct entities taken neat will serve as truthmakers for their distinctness. Examples in which distinct constituting and constituted entities might contingently have happened to exactly coincide spatio-temporally, and hence (as I see it) might have been identical, are not examples in which either of those entities would thereby have failed to exist. This casts doubt on the view that the entities suffice, by their mere existence, to make true the fact of their distinctness.

To consider just one example<sup>16</sup> of many, suppose a gigantic asteroid impacting on the earth's surface throws up great quantities of molten rock. One great quantity of molten rock falls onto a large plain where it solidifies as a truly enormous boulder—large enough to qualify as a mountain. Several hundred thousand years later, a sudden ice age causes the boulder to shatter into a billion fragments, due to thermal stress, so that the mountain remains, but constituted of an enormous pile of gravel rather than a single enormous boulder. Boulder and mountain are not identical, since the mountain survives while the boulder ceases to exist. The boulder, so long as it exists, *constitutes* the mountain. As a pair they instantiate distinctness. This is a case of “overlap” of distinct entities which are extended in time. But it is only a contingent fact that the boulder is destroyed by an ice age. It might have been destroyed by a second asteroid impact, or by the mother of all H-bomb tests. In such cases, the mountain and boulder, which began existence together, would also end it together. Many modern metaphysicians twist and turn to avoid recognizing what I regard as the inevitable conclusion: constitution relations of the kind exemplified by such examples, have identity as a limiting case.<sup>17</sup> The distinctness of boulder and mountain is contingent, not necessary.<sup>18</sup> This view, although debated, suffices I think to warrant an investigation of what might be thought on the topic of truthmakers for distinctnesses, even if we accept the view that in general necessary truths need no truthmakers.

An alternative view, canvassed earlier, was the view that truthmakers for identities or distinctnesses might be the entities identified or distinguished. Fido might be seen as a truthmaker alike for “Fido exists” and “Fido is Fido”, and Fido and Spot might be taken as joint truthmakers for “Fido is not Spot”. But if Fido Rock is the boulder of our above example, and Mount Spot the mountain, then on the view just urged, Fido *might have been* Spot. In that case Fido would still have existed, and so, *a fortiori*, would have Spot. So

<sup>16</sup> Adapted from Robinson (1982).

<sup>17</sup> A straightforward way of generalizing from the limiting case to other cases of constitution, which explains both why the latter does reduce to identity in limiting cases, and why it mimics identity in the way and to the extent it does, in all cases, is to embrace an account of constitution as sharing of temporal parts. But note that in this the doctrine that identity is a limiting case of constitution helps to motivate a doctrine of temporal parts, rather than vice versa.

<sup>18</sup> One of the many reasons for preferring David Lewis's counterpart theoretic treatment of modal properties and of singular reference and quantification in modal contexts, is the relative ease and elegance with which it deals with such cases. See Lewis (1968) and (1971), and Ch. 4 of Lewis (1986); see also Robinson (1982).

this alternative account of truthmaking for distinctnesses would also be defeated.<sup>19</sup> Either way, it seems appropriate to delve further into the issue of what makes distinctnesses true.

One other example, of special interest in an inquiry into truthmaking<sup>20</sup>, concerns the notion of *redundant* or *inessential parts*. Let's for the moment pretend that "Fido" names, not some pooch, but my motor car. The doors of my car are not essential parts of it. They could be permanently removed in the interests of using my car as a beach buggy, or replaced with others. My car would still exist and still be the same car I have owned and driven for several years. Indeed that very car might never have had doors fitted in the first place. Consider then some proper part of my car which would remain were some redundant parts (but no essential parts) to have been omitted. If we accept that Fido is a truthmaker for "Fido exists", we may nevertheless feel inclined to say that Fido is not a *minimal* truthmaker for "Fido exists", since that proper part of Fido would on its own have sufficed to make true "Fido exists". Articulating this claim is however a slightly slippery business, since in that case, that proper part would, intuitively, have *been* Fido and hence no proper part at all. Once again, some will twist and turn to resist what I regard as the inevitable conclusion, that Fido would indeed in that case have been identical with what is actually a proper part of Fido: so that this too is a case of contingent distinctness.<sup>21</sup> Thereby we can straightforwardly capture the intuition that it may be not Fido, but some essential proper part of Fido, which counts as a minimal truthmaker for "Fido exists" —and we

<sup>19</sup>The situation with respect to identity is similar. From the point of view of a cataclysmic scenario in which the boulder-destruction is also a mountain-destruction, the identity of boulder and mountain would also be contingent. Weird though it may sound to say that Fido (a.k.a. Spot) might not have been identical with Spot (a.k.a. Fido), Lewis's counterpart theory gives relatively clear content to this idea: it is just the idea that in an alternative scenario, two distinct items might have counted as counterparts of Fido/Spot. This is in itself not such a bizarre idea, and becomes yet easier to swallow once one allows, as Lewis does, for a multiplicity of counterpart-relations, such as a boulder-counterpart relation and a mountain-counterpart relation. See below, "Denying Bare Modal Differences".

<sup>20</sup>If some entity's existence suffices for truth of a certain truth, then so does the existence of any other entity of which it is a proper part. Thus it may sometimes be appropriate to focus attention on *minimal* truthmakers.

<sup>21</sup>I take it that a similar argument might be made in relation to Fido the dog; I use the example of a car just because cars have some parts that (compared with parts of dogs) are more neatly articulated and detachable (which amongst other things means that it is harder than it might otherwise seem to deny the actual reality of the part of the car which excludes those parts). I set aside the issue of whether any things, and if so which, have any parts which *are* essential, an issue in relation to which the distinction between artifacts and organisms might well assume some importance.

can give the straightforward reason that that part would indeed be the whole of Fido if all redundant parts of Fido were lacking.

To sum up, there is then a case for doubting whether the terms of a distinctness really do suffice, if they exist, for the truth of that distinctness, as well as for doubting that distinctnesses can be set aside as a species of necessary truth, and said to need no truthmakers, on that ground alone. So let us look further at what might be said about truthmaking for distinctnesses.

*Primitive Thisnesses: Truthmakers for Distinctnesses*

There have been attempts over the years to give accounts of “the structure of individuality” in a relatively uniform and generic manner. Doctrines of substance, prime matter, and the like, can be seen in this way, as can Armstrong’s “states of affairs”. In a nearby ballpark, at least, we may locate talk in recent decades of “haecceitism”, a doctrine about *de re* modality according to which distinct possibilities may differ in no qualitative way, but solely with respect to the identities of the entities which figure in them.

In what follows I wish to look at a slightly different but closely related idea —the idea of “primitive thisnesses”. This idea is commonly associated with the idea of “haecceitistic” differences between qualitatively indiscernible possibilities, but has also been employed in talking of the distinctness of qualitatively indiscernible *entities* which jointly figure in a single possibility or possible world: in other words, in order to give an account of *intra*-world rather than *inter*-world relations of identity and distinctness.

Despite my scepticism about generic truthmaker principles, I believe that it can be heuristically useful at times to view metaphysical questions through truthmaker “spectacles”. One such heuristic function may be diagnostic: it can help us to see what is going wrong (or, more modestly, to form or articulate an opinion about why something seems to be going wrong). I’m a sceptic also about primitive thisness, and my aim from here on is to articulate that scepticism. I don’t believe truthmaker-talk is essential for that task, but I do think it is heuristically, in fact diagnostically, useful for it.

To be more precise, my aim is to articulate my scepticism about one familiar style of argument for a doctrine of primitive thisness. For concreteness I’ll mainly focus on the careful and influential exposition by Robert Adams in his seminal Adams (1979), though for present purposes my treatment will need to be brutally condensed. I believe the actual content of the conclusion of Adams’s argument to be evanescent at best: but insofar as one can get a grip on that conclusion, I believe it to be mistaken. In a nutshell, I see the argument as one which purports to discern truthmakers of an exotic kind for distinctnesses and identities. When we see what Adams is doing in that light, I think it is easier to see that he is proposing the *wrong kind* of truthmaker. The issues which arise seem to me also to illustrate the way in which

attempts to answer questions about truthmaking, easily become bedevilled by the tangled logical interrelationships between distinct kinds of claims: also, to put virtually the same point another way, to illustrate the difficulties associated with taking linguistic structure as a guide to structures in reality.

Adams (1979) is densely packed with ideas, arguments, and distinctions, only a few of which will concern us here. Even so, and despite using a broad brush, it will take a certain amount of exegesis to get where we are going.

Amongst the theses Adams defends in Adams (1979) are the following: (i) that each actual thing has what Adams calls a “*primitive thisness*”; (ii) that this follows from the falsity of a certain non-trivial version of the Identity of Indiscernibles; (iii) that identity, and particularly identity “across worlds”, is primitive; (iv) that though closely linked, (i) and (iii) are distinct doctrines which are in some sense independent and may to some extent be attacked or defended separately; (v) that the doctrine of primitive thisnesses is also distinct from, though it may be suggested by, semantic doctrines of direct reference.

The notion of “primitive thisness”, is centrally related to the truth or falsity of various versions of the Identity of Indiscernibles. (For brevity I shall sometimes refer to the latter generically as “versions of IdI”.) It is important to remember here, item (iv) in the above list, and that our concern will be with intra-world, rather than inter-world, identity and distinctness. Adams himself distinguishes “primitive thisness” from “primitive identity” (in the context of, for instance, “trans-world identity”), and treats them differently. Indeed the title of his paper signals precisely that point.<sup>22</sup>

Adams equates the doctrine that each actual thing has a primitive thisness, to the doctrine that not all facts need be *purely qualitative*. This in turn he equates to the claim that (in an extended sense of “qualitatively”), distinct things could be qualitatively just alike; this implies the falsity of a suitable version of IdI. And since purely qualitative facts would in principle be expressible in *purely general* terms —without reference to the identity of any

<sup>22</sup>References by other writers to Adams’s views as set forth in Adams (1979) have mostly focussed on the primitiveness or otherwise of identity “across worlds”, rather than on those aspects of the paper which I here address —namely, the metaphysical significance of “intra-world” counterexamples to different versions of IdI. Nor does it seem that much notice has been taken of Adams’s attempt to distinguish the issues. (This is natural enough given that Adams argues *both* for primitive thisnesses *and* for the primitiveness of trans-world identity, *and* uses the former as a premise for the latter.)

Issues relating to the view that there are non-qualitative determinants of identity and distinctness across worlds are to my mind well-discussed by David Lewis in Lewis (1986), Ch. 4. As is well known, use of Lewis’s favoured counterpart-theoretic approach to such issues avoids the need to postulate “haecceities” shared between individuals in different possible worlds.

particular individual—the doctrine of primitive thisness is, or incorporates, a doctrine of primitive *particularity*.

On a not unnatural reading, his claim that each actual thing has a primitive thisness commits him to something akin to “bare particulars” —or at least to some kind of *sui generis* non-qualitative particularizing metaphysical ingredient, necessary to the metaphysical constitution of any particular. But in Adams(1979), Adams takes care to be explicitly non-committal about any such understanding of his doctrine of primitive thisnesses, and in his later “Actualism and Thisness” (Adams (1981)<sup>23</sup> he explicitly repudiates it, or at least one form of it. In the latter paper he stipulatively reserves the label “haecceity” for such a metaphysical ingredient, conceived as essential to a given individual, capable of being possessed by no other individual, but nevertheless capable of existing independently of that individual. Adams distinguishes haecceities in this sense, which he castigates as generating metaphysical paradoxes and mysteries, from primitive thisnesses of the kind he wants to defend.<sup>24</sup> It is evident that he regards his commitment to primitive thisnesses as carrying a much lighter ontological load than any that would be entailed by a commitment to “haecceities” in this special sense.

Despite these attempts to minimize the metaphysical weight of his commitment, Adams claims that every actual individual has its own primitive thisness (so that primitive thisnesses are allocated one apiece to particulars), and in Adams (1979) he suggests that this somehow depends on the “structure” of “individuality” being in some way the same for all things. It is in these formulations that Adams appears to me to go beyond his premises in a way that is obscure and unjustified. Although he rules out a “bare particulars” or “haecceities” interpretation, it is difficult to find an alternative reading on which these claims are both warranted and substantive.

Adams places thisnesses in the category of *properties*: if *a* is some individual, then we can take the open sentence “ $x = a$ ” as expressing the property of being identical with *a*, and this is what Adams calls a “thisness”. But note: Adams commits himself to a hyperintensional notion of properties. Thisnesses, he holds, are distinct from “suchnesses” or qualitative properties, since qualitative duplicates can have distinct thisnesses. But Adams infers that thisnesses are primitive, not only in those cases of duplication, but in all cases, since he argues that “it is plausible to suppose that the structure of

<sup>23</sup> In this paper Adams argues for an “actualism” which denies the existence of thisnesses for merely possible individuals. He has also (in Adams (1986)) investigated analogous issues arising in the temporal context, denying the present existence of thisnesses for future individuals.)

<sup>24</sup> *Pace* Robert C. Coburn who says (in Coburn (1986)) “N.B. Adams uses “haecceity” and “thisness” to express the same concept” (p. 181, fn. 4).

individuality is sufficiently similar in all cases to infer from this that *every* thisness is distinct from all suchnesses—even those to which it is necessarily equivalent”.<sup>25</sup> Thus each thisness is distinct from all suchnesses, even in cases where thisnesses and suchnesses are necessarily coextensive.

Better to understand Adams’s argument for this elusive doctrine, we need to clarify his notion of suchnesses, and hence the correlative version of IdI, and to see what falsifies the latter. I shall locate the relevant version of IdI within a spectrum of versions, and I shall focus on one familiar kind of example—that which I see as the clearest and least debatable—which falsifies it.

### *Some Indiscernibility Principles and Their Assorted Failings*

Let’s use the word “duplicates” generically for things which are in specified respects exactly similar. Diverse versions of IdI all claim that *duplicates must be identical*, but differ in the respects of exact similarity they count sufficient for duplication.<sup>26</sup> The weaker the requirement for duplication, the stronger the indiscernibility principle, and the more easily counterexamples to it may be found: thus we move towards the *weaker* end of our spectrum by *strengthening* the requirements for duplication. To enumerate these options, we begin with a taxonomy of properties.

Some properties are intrinsic, and I assume thisnesses are amongst them. If Adams is right, and thisnesses are distinct from all qualitative properties or suchnesses, then we can distinguish a subset of the intrinsic properties, namely the *qualitative* intrinsic properties. In addition to intrinsic properties, things have properties in virtue of the relations they stand in to various things. Let’s suppose being a dog is an intrinsic qualitative property, and suppose I pat Fido. There is a two-place relation, the patting relation, which has the ordered pair ⟨me, Fido⟩ in its extension. But there are related monadic properties, like the property of *patting Fido*, which is a monadic and (partly) extrinsic property of me. It is also a “thisness-involving” property, or as I shall also call it, a *particular relational* property, because it involves bearing the patting relation to a particular thing, *viz* Fido. (Some call such properties “impure” properties.) But there is also the property of *patting some dog*; this is also a property I have, but it is not “thisness-involving” or “impure”, because it is not tied to any particular dog—I will have this property whichever

<sup>25</sup> Adams (1979), p. 13.

<sup>26</sup> (i) I assume, throughout, the converse *Indiscernibility of Identicals*—that each thing is a duplicate of itself in every relevant sense of “duplicate”.

(ii) Note the “must” and “could”: these principles state constraints which are meant to apply necessarily: merely possible counterexamples will suffice to refute them.

dog I pat. We could call such properties *general relational* properties, or, in line with Adams, who counts them as amongst the qualitative properties or suchnesses, we could call them the *qualitative relational* properties. Thus the qualitative properties, or suchnesses, divide into the qualitative intrinsic properties, and the qualitative relational properties. The relational properties divide into the qualitative relational properties and the particular relational properties.<sup>27</sup>

Roughly speaking, a qualitative relational property could be expressed in a *suitable* and sufficiently rich language by some formula containing two- or many-place predicates, one free variable, and no names, indexical terms, or individual constants. A *suitable* language will contain only purely qualitative predicates: unlike, say, ‘grue’, which is, intuitively, thisness-involving.<sup>28</sup>

A small diagram might help clarify this classification of properties:

Qualitative Properties (“Suchnesses”)		
Qualitative Intrinsic	General Relational (“Qualitative Relational”, “Relational Suchnesses”)	Particular Relational (“Thisness-involving”, “Impure”)
<p>“<i>x is a dog</i>”  “<i>x is spherical</i>”</p>	<p>“<i>x pats a dog</i>”  “<i>x is five miles from a  burning barn</i>”</p>	<p>“<i>x pats Fido</i>”  “<i>x = Fido</i>”</p>
Relational Properties		

Our spectrum of versions of IdI is generated, in order of decreasing strength, by taking as sufficient for identity, duplication of properties in the first column, in the first two columns, and in all three columns.

<sup>27</sup> Note that particular relational properties may or may not be partly or wholly extrinsic: for instance, I assume that Fido’s thisness is intrinsic to Fido.

<sup>28</sup> ‘Grue’ is thisness-involving provided times are individuals, as Adams takes them to be. ‘Grue’ is an anomalous predicate in more ways than one: it is extrinsic and disjunctive as well as thisness-involving. Its relevance here is simply as an unstructured thisness-involving predicate: Adams does not exclude extrinsic or disjunctive relational suchnesses. (Here I am indebted to David Lewis.)

One might imagine a corresponding division of names. Some names might be “descriptive names”, and some of them might be equivalent to suitably rigidified descriptions which employ only qualitative predicates, no names, and no indexical or *de se* expressions (apart from “actually”). We could add to the above requirement on “suitable” languages, the requirement that such names are in all cases replaced by the corresponding description. Then we can say that in a *suitable* language, suchnesses can be expressed by all and *only* sentences containing no names, indexical terms, or *de se* expressions, whereas sentences containing the latter will be thisness-involving.

At the strong end of our spectrum, there's a version ("the Identity of Qualitative Intrinsic Duplicates") which is relatively uninteresting: plausible counterexamples are easy to conceive, so it's evidently false. This overly strong version says that things are identical if they merely share all their qualitative *intrinsic* properties (duplication of properties from the first column suffices for identity). It is overly strong because there seems to be no metaphysical impossibility in the existence of a pair of exact qualitative intrinsic duplicates. We are quite used to the idea of two things being intrinsically just alike, even if we believe that the proverbial two peas in a pod will only approximate to such a case, and that only fundamental particles, or brief temporal segments of them, are likely to perfectly exemplify this relation in actuality.

The following reflections perhaps help to explain, and to bolster, that conviction. Our actual world either is, or is similar to, a world in which *location* is an entirely *extrinsic* property: in general it constrains the intrinsic properties of a thing minimally if at all. *What something is like* is generally more or less independent of *where it is*, and of *what things elsewhere are like*. When we are so familiar with an approximation, at least, to *causal* independence of the intrinsic properties of a thing from how things are elsewhere, it is hard not to believe in the *logical* or *metaphysical* independence of intrinsic facts in one place from intrinsic facts elsewhere. So if a thing has a particular intrinsic character, this will in general be no bar to the possibility of another thing elsewhere having an exactly similar intrinsic character.

At the weak end of our spectrum, conversely, there is a version ("the Identity of Particular Relational Duplicates") which is true but trivially weak. This version says that things are identical if they share all their properties from all three columns, hence including particular relational properties, and hence including, *inter alia*, thisnesses. If things match in their thisnesses — in which things they are identical with — it is no surprise if they are identical with each other, since each is identical with itself. As a sufficient condition for identity, duplication in this sense is vacuous.

But between these extremes — one boringly true, the other boringly false — there are intermediate versions of IdI. One of them is the version which says that a sufficient condition for identity is duplication with respect to properties in the first two columns of our table. For want of a neater term, I'll call this principle the Identity of Qualitative Relational Duplicates: though it must be borne in mind that it asserts that necessarily, things are identical if they are exactly alike *both* in their qualitative *relational* properties, *and* in their qualitative *intrinsic* properties.

Adams, in effect, takes the existence of primitive thisnesses to be established by the falsity of this version of IdI. Now if  $x$  and  $y$  are qualitative relational duplicates, then for each relation  $x$  bears to anything,  $y$  must bear an exactly similar relation to something exactly similar. If  $x$  pats a spotted

dog,  $y$  must pat an exactly similar spotted dog; if the spotted dog  $x$  pats is five miles from a burning barn, then the spotted dog  $y$  pats must be five miles from an exactly similar burning barn, and so forth. It can readily be seen that counterexamples to the Identity of Qualitative Relational Duplicates will need to be entire possible worlds which are somehow perfectly symmetrical or perfectly repetitive in space, or in time, or in some alternative “dimension”.

Some candidates for such possibilities are more plausibly or less controversially possible than others. A world entirely composed of immaterial souls, with eternally matching mental processes, would be one candidate, but a dubious one due to the obscurity of issues about individuation for souls (and their mental processes) under such circumstances. A world composed entirely of two exactly similar material entities, coexisting in exactly the *same* location and orientation, might be another: but this too is a puzzling and debatable possibility.

The most compelling counterexamples to the Identity of Qualitative Relational Duplicates are variations on a theme established by, amongst others, Max Black: a world containing nothing but a pair of exactly similar, spatially separated metal spheres<sup>29</sup>. Adams labels arguments based on such possibilities, “arguments from dispersal”.

Adams’s paper includes two interesting sections devoted to arguing for the possibility of spatio-temporally symmetric or repetitive worlds, such as the world of the two spheres. I accept those arguments, but here I shall not rehearse them. Rather, I shall simply assume that at least some such possibilities are real. Like the possibility of intrinsic qualitative duplicates, the existence of such possibilities seems inherent in our conception, noted above, of spatio-temporal relations as our paradigms of external relations — relations which may constrain the intrinsic character of their relata minimally if at all. This I think is the central point which underpins arguments such as those which Adams in fact gives for the possibility of symmetric or repetitive universes.

I’ll use the term “Black worlds” to refer generically to worlds having the simple kind of symmetry illustrated by Black’s own example. If we let “ $R$ ” represent a symmetric non-reflexive two-place external relation, we could perhaps describe the simplest kind of Black world, as a world containing just two individuals,  $s$  and  $b$  (for “Snark” and “Boojum”, let’s say), in which “ $Rsb$ ” is true, “ $Rss$ ” and “ $Rbb$ ” false. Perhaps we cannot suppose that two individuals exist without supposing them to have some intrinsic or qualitative character. Let them be intrinsically exactly similar and let “ $F$ ” express the total intrinsic character of each of them, so that “ $Fs$ ” and “ $Fb$ ” are true.

<sup>29</sup> Black (1952).

Nothing is true in this world beyond what these facts entail. Black's own example is not such a world, since it contains spatially extended spheres, hence it contains distinct parts of, or regions within, those spheres. If the spheres are truly metal, in a familiar sense, the spheres also contain metal atoms and their subatomic constituents; perhaps the Black world also contains regions or points of empty space-time. So the world of Snark and Boojum is altogether simpler and vastly more abstract than the original Black world. Nevertheless, if any Black worlds are possible, it is hard to see why a Snark/Boojum world should not be, unless we think that *only* spatio-temporal relations could be perfectly extrinsic in the required sense. For the most part from now on I'll abstract from the differences between different Black worlds, and I'll use the names "Snark" and "Boojum" to refer to the salient pair of duplicates in any such world<sup>30</sup>.

Assuming, then, that such a world is possible: what follows? It follows that the thisnesses of Snark and Boojum are distinct from any "suchnesses" (as Adams conceives the latter), since Snark and Boojum share all their suchnesses, but not their thisnesses. The thisnesses of Snark and Boojum are therefore "primitive" in a straightforward sense: namely, they are not definable in terms of suchnesses. But Adams uses the phrase "primitive thisness" in some different sense, since he suggests that the thisness even of a thing whose thisness is necessarily equivalent to some suchness, should be regarded as primitive (a view which commits him, of course, to a hyperintensional notion of properties).<sup>31</sup> How does Adams argue on behalf of this recommendation? Essentially, his reasons are summed up in the following remark

'... it is plausible to suppose that the structure of individuality is sufficiently similar in all cases that, if in some possible cases thisnesses would be distinct from all suchnesses, then thisnesses are universally distinct from suchnesses—even if some thisnesses (including, for all we know, those of all actual individuals) are necessarily equivalent to some suchnesses'<sup>32</sup>.

<sup>30</sup> Strictly speaking, of course, we use "Snark" and "Boojum" as bound variables within the scope of implicit existential quantifiers, since there is nothing we could do to bestow distinct reference on one as opposed to the other. If we were inhabitants of a more complex Black world and living on one or another of these spheres, things would be different.

<sup>31</sup> Note that the positing of hyperintensional properties is typically a paradigm of projecting the structure of language (or some other form of representation) onto reality, since typically our only way to differentiate such properties when they are necessarily equivalent, is by way of our distinct linguistic ways (or other representational ways) of specifying them.

<sup>32</sup> Adams (1979), p. 13.

Here, then, we see Adams purporting to draw some generic conclusion from the possibility of Black worlds, and the like, about the “structure of individuality”, involving each individual, qualitatively unique or not, having a rather mysterious unique hyperintensional property<sup>33</sup>.

*Primitive Thisnesses as Misconceived Truthmakers?*

Here is where my scepticism sets in. What have we actually learnt, above and beyond the mere possibility of symmetric and repetitive universes? Nothing, so far as I can see. The phrase “the structure of individuality” is here purporting to be doing work —justifying an extension of the claim that *some* possible individuals *would* have thisnesses which would be “primitive” in a relatively clear sense, to the claim that *any* individual *does* or *would* have a thisness which is primitive in some *other, less* clear sense— which goes far beyond anything justified by the content which it has actually been given. Something seems to me clearly to have gone wrong.

It’s in saying *what* seems to have gone wrong, that truthmaker talk may be useful. There are two main steps in Adams’s reasoning: first the step in which he argues from Black worlds and like possibilities, to the possibility of some particulars having primitive thisnesses; secondly, the generalization to all particulars having primitive thisnesses. No evident job is actually done by primitive thisnesses which are necessarily equivalent to suchnesses —those introduced in the second step of the reasoning— and in fact it seems to me that this makes them as it were a cost-free addition to ontology, reminiscent of the cost-free way the tailors who ran up the Emperor’s New Clothes came by the fabric they used. But the way these evanescent items are introduced in the first step of Adams’s reasoning, suggests to me that they are thought of as truthmakers for distinctnesses.

It’s as if we might have thought that differences in things’ suchnesses might have provided truthmakers sufficient for accounting for distinctnesses, until we saw that distinct things need not differ in their suchnesses. What, then, could the relevant truthmakers be? It seems as if this question is answered by positing primitive thisnesses as generic truthmakers for identities and distinctnesses: and once this idea is embraced in full generality, a

<sup>33</sup> Interesting issues arise if we ask whether it is really possible for any particular’s thisness to be necessarily coextensive with any suchness. It would be sufficient to answer this question in the negative, if we could show that for every particular individual, there is a symmetric or repetitive possible world in which that very individual figures (as opposed to some mere duplicate, or some counterpart which could serve also as a counterpart for other entities). The issues which thus arise could not be settled without discussing alternative approaches to the representation of *de re* modality in a possible worlds framework —a topic I am here for the most part setting aside.

distinctness-truthmaking role for suchnesses may be seen as after all redundant even in those cases where it seemed initially plausible.

Once we portray the situation in this way, it seems to me, we are in a position to see what has gone wrong. The crucial examples —the Black worlds and their kin— trade on the possibility of purely external relations such as spatio-temporal relations. The distinctness of distinct entities is itself a relation between those entities. Given that it depends in these cases on external relations between them, positing primitive thisnesses —non-qualitative intrinsic properties— looks suspiciously like a mistaken attempt to ground a purely external relation between entities, in their intrinsic properties. Such a project looks doomed to fail, almost by definition —unless we invent some bogus, non-qualitative “intrinsic” properties to do the job, thereby in effect denying that the relation is a purely external one after all. Had we more thoroughly explored the possibilities for more familiar properties —intrinsic and relational suchnesses— to serve as truthmakers for distinctnesses, we might have done better by thinking of the spatio-temporal separation between the relevant entities as itself a sufficient truthmaker for their distinctness<sup>34</sup>. But so long as we compare only *monadic* properties (whether or not “relational” properties) of the relevant entities, we effectively prohibit ourselves from such a move.

#### *Seeking to Improve the Identity of Indiscernibles*

Whether or not these somewhat vague suggestions are fair to Adams, I shall for the remainder of this paper try to clarify them a little, and to explore some interesting issues to which they lead. In particular, I want to briefly consider the prospects for a version of the Indiscernibility of Identicals which might not be so strong as to be obviously falsified by the possibility of Black worlds and other “dispersal arguments”, as Adams calls them, and which might yet not be so weak that their truth is purchased at the cost of complete triviality.

A first point to be noted is the following. The plausibility of the most convincing kinds of possible counterexample to the Identity of Qualitative Relational Duplicates rests on our familiarity with spatio-temporal relations as at least approximating to purely external relations: relations which within certain physical limits, may or may not obtain between particulars virtually regardless of the intrinsic properties of those particulars. And this in no way differs from our reasons for believing in the possibility of intrinsic qualitative

<sup>34</sup> Given the possibility of curved space-time, spatio-temporal separation will not always constitute a sufficient condition for distinctness; in a fuller treatment one would also need to explore complications due to the possibility of time-travel. But in the case of counterexamples along the lines of Black worlds and their ilk, these complicating possibilities are stipulatively ruled out.

duplicates in general. In other words, at bottom we need no more resources to convince ourselves of the falsity of the Identity of Qualitative Relational Duplicates, than we need to convince ourselves of the falsity of the Identity of Qualitative Intrinsic Duplicates. A Black world is simply a world containing a pair of suitably oriented qualitative intrinsic duplicates which happens to contain nothing else which might disturb its symmetry. And surely the presence or absence of additional entities is neither here nor there so far as the possibility of such duplicates existing, is concerned. (The idea that the *additional* entities might somehow serve as truthmakers for the distinctness of those two, has little plausibility.)

Let us return to the idea that the distinctness of the duplicates in a Black world (or of any pair of intrinsic duplicates, for that matter) is to be seen as based in the essentially relational facts of their separation: the idea, in other words, that the spatial separation of these entities functions as a truthmaker for their distinctness. One might argue that this is more in keeping with a sensible view of what “the structure of individuality” consists in, in the case of spatio-temporally located individuals. We have seen already that coinstantiation of distinct properties by a single individual is itself a case of identity. So far as intrinsic properties go, for an individual which is located precisely at a single point of space-time to instantiate two such properties, they must be instantiated at the same location as one another. For spatially or temporally extended individuals, coinstantiation of spatially or temporally indexed properties (as in “this apple is green on one side but red on the other” and “this apple was green yesterday but is red today”) will involve (as I see it, anyway), suitable spatio-temporal relations between spatial or temporal parts of the individual which coinstantiates those properties. Thus it seems reasonable to think that by looking at the role of spatio-temporal location and separation in the individuation of spatio-temporally located entities, we may genuinely advance our understanding of “the structure of individuality” for such entities, in a way in which an abstract and generic appeal to “primitive thisnesses” fails to do.

We examined various versions of the Identity of Indiscernibles, investigating sufficient conditions for distinctness by seeing which of them were falsified by possible counterexamples. Adams arrives at the rather unilluminating answer that a generic sufficient condition for distinctness consists in having distinct thisnesses. If we wish to clarify the idea that in the most convincing cases, it is actually things’ standing in certain external relations which should be seen as the truthmaker for their distinctness, we need to move away from the kinds of formulations of IdI which we have so far considered. For in each case, even when we attended to “relational properties”, it was the monadic properties of our candidate entities which we appealed to. We could truly but trivially represent duplication of thisnesses as sufficient

for identity. Or we could recognize the falsity of a principle representing duplication of suchnesses as sufficient for identity, positing a pair of “primitive thisnesses” to account for the distinctness of qualitative relational duplicates. For a different take on the Black world examples, we need to move beyond monadic properties and look, not just at “relational” monadic properties, but at relations. Rather than comparing the monadic conditions one entity satisfies, with those satisfied by the other, we need to consider conditions which may be satisfied by entities taken *pairwise*.

We can gain inspiration and clarify this by drawing on Quine (1976). Consider the following condition (Q), adapted from one of several equivalents which Quine gives there. Let us recall the idea of “suitable” languages, introduced earlier —languages containing only purely qualitative predicates. Then our condition says:

(Q) *x* and *y* are identical provided the pair  $\langle x, y \rangle$  does not satisfy any open sentence of any suitable language, having the form:

$$(\exists z_1) \dots (\exists z_{n-1}) (Fz_1 \dots z_{n-1} x \& \sim Fz_1 \dots z_{n-1} y)$$

(where “*F*” is *n*-place and  $n \geq 1$ , so that “ $Fx \& \sim Fy$ ” counts as an instance).

This condition discriminates the entities of a Black world —that is, it is capable of telling us that they are not identical— without having to appeal to names or other thisness-involving expressions. Taken as a pair, for instance, *s* and *b* (Snark and Boojum) satisfy  $(\exists z)(Rzx \& \sim Rzy)$  —since there is for each of them something to which it stands in the relation *R*, and to which the other does not— namely, that other. So if e.g. *R* is in fact the relation obtaining between *x* and *y* just if *x* is 10 feet distant from *y* in Euclidean space, *s* stands in this relation to *b*, whereas *b* does not: and vice versa. Thus it seems we can after all specify a criterion in purely qualitative, non-thisness-involving terms, which discriminates *s* from *b*, provided we may examine *s* and *b*’s joint satisfaction of relational conditions, rather than being constrained to compare only their separate satisfaction of monadic conditions. It seems to me that recognition of this fact should reduce the desire to postulate primitive thisnesses, in any substantial sense, simply because of the possibility of general relational duplicates. (Q) is in fact, a different kind of version of the Identity of Indiscernibles. Quine (1976) is devoted to making the point that a pair of entities may be discernible by a relational criterion of this kind despite being indiscernible when they are compared for satisfaction of monadic criteria.<sup>35</sup>

<sup>35</sup> In a general way, my thought here is somewhat analogous to what David Lewis tells us (in Lewis (1979)) about *de se* content. Two individuals may believe just the same set of “qualitative” propositions about the world yet one may differ from the other in (truly!) thinking something expressible in the form “I myself ...”, which the other does not, and vice versa. There is an ineliminable or essential indexical element involved in a thought of the latter kind. One response to this observation might be to attribute some otherwise ineffable,

It may appear then that we have found a version of IdI which is both true, and non-trivial. This principle is not falsified by Black worlds, since it correctly recognizes the distinctness of Snark and Boojum. And unlike the Identity of Particular Relational Duplicates, it can do so without “cheating” by appealing to the thisnesses of Snark and Boojum. It’s not as though we have to take these entities in one order rather than the other: this version of IdI recognizes, given merely that  $(\exists s)(\exists b)(Rsb \& \sim Rss)$ , that  $(\exists s)(\exists b)(s \neq b)$ . The symmetric world makes each of these true, so to speak, in two different ways<sup>36</sup>. And  $R$  itself is a purely “qualitative” (non-“thisness-involving”) relation. Although external relations between things are not to be counted amongst their *qualities*, in any traditional sense, the kind of generality which our criterion has through its restriction to suitable languages, and its avoidance of names, demonstratives, or other constant singular terms, seems to be in line with what Adams is principally getting at in his opposition between ‘thisnesses’ and ‘suchnesses’. In that sense it seems fair to say that this criterion enables us to count our pair of entities as distinct on purely qualitative grounds.

Can we then celebrate doubly? Have we not only seen how Snark and Boojum can be distinct despite sharing all their *monadic* suchnesses, through their pairwise satisfaction of a purely qualitative dyadic condition, but also found a version of the Identity of Indiscernibles which is arguably both non-trivial and true?

Not yet: that would be too quick. Although the reasoning we actually used in applying (Q) to our Black world did not “cheat” in a manner analogous to the trivializing way in which the Identity of Particular Relational Duplicates does, we could easily have applied it in a “cheating” —trivializing—way. Despite avoiding appeal to thisnesses the principle as so far stated is clearly a close relative of the Identity of Particular Relational Duplicates, and it may be argued to be trivial in a similar way. Instead of arguing the

non-qualitative element of unique selfhood to discriminate the truth-conditions of the disparate *de se* beliefs —some mysterious ontological ingredient referable to only by the use of indexicals. Lewis shows that this mystery and ontological extravagance may be avoided by properly taking account of the essentially *relational* nature of *de se* ascriptions. Thinking of propositions as 0-place properties, one must “add an argument-place” in representing the content of *de se* ascriptions: they are best seen as self-ascriptions of 1-place properties. This is equivalent to saying that *de se* beliefs concern, not merely the nature of the world in which one is actually situated, but how one relates (e.g., spatio-temporally) to that world and the things in it. I propose similarly that we should trade in primitive thisnesses for an extra argument-place in the properties by reference to which we see candidates for distinctness as discriminable.

<sup>36</sup> Here again it is important to remember that “*s*” and “*b*” are really functioning throughout our discussion as bound variables.

distinctness of  $s$  and  $b$  on the substantive ground that taken as a pair they satisfy  $(\exists z)(Rzx \& \sim Rzy)$ , we could have argued the distinctness of  $s$  and  $b$  trivially, using the above two-place criterion, by noting that taken as a pair they satisfy  $(\exists z)(z = x \& z \neq y)$ .

### *Denying Bare Distinctness*

We might therefore feel inclined to seek a principle (Q\*), which would, in effect, deny that satisfaction by a given pair of the condition  $(\exists z)(z = x \& z \neq y)$ —or its simpler equivalent  $x \neq y$ —could be a *bare* fact, failing to supervene on satisfaction of any other condition. My name for such a principle is “the Denial of Bare Distinctness”. Some have said that identity should not be regarded as a relation. I don’t see how this could be so, given that its complement, distinctness, certainly is a relation. But suppose we pretended that identity and distinctness were not relations. Then under this pretence, the Denial of Bare Distinctness would say, roughly, that intrinsically indiscernible pairs are identity pairs unless there are things their members are differently related to. A *counterexample* to such a principle would have to consist of a pair of intrinsic qualitative duplicates which were not differently related to *anything*: they would have to be *just barely distinct*. Any counterexample in a spatio-temporal world would have to consist of a pair of distinct, *spatio-temporally coincident* intrinsic duplicates bearing all the same relations as each other (casual relations, spatio-temporal relations—the lot!) to *every* thing, including each other and all their spatial and temporal parts<sup>37</sup>.

However identity and distinctness *are* relations, whatever we pretend. So how could we more adequately formulate such a principle? Once formulated, will it be true? If so, will this show in any interesting sense that we need not treat thisness, or identity, as primitive? If, on the other hand, such a principle must be false, does this show that there *is* some point in talking of primitive thisness?

As noted, (Q) itself reduplicates the triviality of the Identity of Particular Relational Duplicates. Trivially, no pair of distinct things duplicate *all* their relations, since each is identical with itself and distinct from the other. Our trivial monadic indiscernibility criterion, the Identity of Particular Relational Indiscernibles, is trivial because it admits appeal to thisness-involving properties in deciding whether identities obtain—in particular, to thisnesses themselves: properties expressible by such formulas as  $x = s$

<sup>37</sup> Accepting bare distinctness would thus require, not merely accepting the possibility of coincident physical entities, but abandonment of what seems like a fundamental truth about identity through time, namely that the endurance of a physical thing consists in the continuance of a suitable causal process. See below, “Barely Distinct versus Barely Causally Distinct”. For a discussion of some related issues, see Robinson (1982).

and the like. Our false monadic criterion, the Identity of General Relational Indiscernibles, avoids triviality by barring all appeal to thisness-involving properties, and I've followed Adams in taking the occurrence of names and other singular constants—in suitably purified languages—as the linguistic manifestation of appeal to thisnesses.

Our dyadic criterion (Q) discriminates distinct entities in purely qualitative terms—without appeal to thisness-involving properties. But as so far formulated it is trivial because of the possibility of appealing to the identity relation either directly—in the dyadic context it doesn't need to couple with a name to have this effect—or by way of other properties (e.g. distinctness) logically related to it. What suggests itself, then, is that we might formulate a non-trivial version of the Denial of Bare Distinctness as a dyadic criterion of the above sort, but in terms of languages which are still further purified—rendered *extra-suitable*—through the exclusion from them not merely of expressions for thisness-involving properties, but also of expressions for *identity-involving* properties<sup>38</sup>.

Just as we distinguished a class of languages in which thisness-involving properties require the explicit use of names for their expression, so we might hope to distinguish a sub-class of those languages in which *identity-involving* properties require the explicit use of the *identity*-sign for their expression. Thus we would ban e.g. unstructured expressions having the sense of definite descriptions, and presumably also numerical expressions. These would be the *extra-suitable languages*. We could say a sentence of such a language is *pure* if it contains no occurrences of the identity sign, and say:

<sup>38</sup> As earlier remarked, Adams wishes to distinguish the primitiveness of identity from the primitiveness of thisness, though seeing them as related. I have a deep suspicion of his view and his arguments for it, though I don't have room to criticize his arguments here. For one thing, these notions seem to trade off against one another in a way which suggests they are merely different aspects of a single notion of individuality. When we move from the fact of  $s$ , but not  $b$ , satisfying the monadic  $Rbx$ , to the fact of the pair  $\langle s, b \rangle$  satisfying the dyadic  $(\exists z)(Rzx \& \sim Rzy)$ , we are in a sense trading in appeal to the thisnesses of  $s$  and  $b$  for appeal to identity, the latter admittedly expressed, not through the use of the identity sign, but through the use of repeated occurrences of a bound variable of quantification.

My talk of “thisness-involving” and “identity-involving” properties is thus to an extent “for the sake of argument”, and despite these qualms. This said, if we nonetheless continue working with these notions, the idea of a restriction to properties which are not identity-involving suggests a back-tracking. The Identity of Particular Relational Indiscernibles trivializes because of the possibility of appealing to properties expressed by formulas like “ $x = s$ ”. This expression is *both* thisness-involving *and* identity-involving. Perhaps the exclusion of *thisness-involving* properties was a red-herring in the first place, and it was *identity-involving* properties which should have been excluded all along? It would I think be illuminating—even fascinating—to explore this issue, but space does not permit me to do so here. It is related to issues of “circularity” discussed below under “Barely Distinct versus Barely Causally Distinct”.

(Q\*) *x and y are identical provided the pair  $\langle x, y \rangle$  does not satisfy any pure open sentence of any extra-suitable language, having the form:*  
 $(\exists z_1) \dots (\exists z_{n-1})(Fz_1 \dots z_{n-1}x \& \sim Fz_1 \dots z_{n-1}y)$   
 (where “*F*” is *n*-place and  $n \geq 1$ , so that “ $Fx \& \sim Fy$ ” counts as an instance).

So far, however, this is sketchy, and I don’t know how to improve it. Our account of extra-suitable languages ought to exclude not only identity-involving expressions, but expressions for properties involving certain close logical relatives of identity. The two most obvious examples are notions of set-theory, and of mereology. Given the notion of set membership, identity can be defined, e.g. as having all the same members (for things which have members), or being members of all the same things (for things which don’t). Our condition as formulated blocks counting a pair distinct on the mere grounds that they satisfy  $(\exists z)(z = x \& z \neq y)$ , but doesn’t block counting them distinct on the mere grounds that  $(\exists z)(x \in z \& y \notin z)$ , which is just as objectionable. So appeal to notions which can serve in this way as surrogates for bare distinctness must go also, and, if we want to do things that way, the notion of an extra-suitable language, and the correlative definition of a “pure” sentence of such a language, must be framed accordingly.

The worry here is that there might not be any *sharp* distinction between relations like membership and the part-whole relation, in terms of which trivial conditions for identity and distinctness can be defined, or properties which somehow incorporate those notions, and properties in general.<sup>39</sup> (As a clarification, I should point out that there is no question here of employing some purely syntactic criterion to distinguish the thisness-involving, or the identity-involving, properties, from others. My idea here is to employ intuitive *semantic* distinctions to categorize possible languages, and expressions in those languages, as “suitable” and “extra-suitable”. This done, the hope is to clarify issues by using those categories to formulate interesting conditions in syntactic terms.)

A first project for philosophers in the area, then, might be to decide whether, and how, the Denial of Bare Distinctness can be made sufficiently clear and precise to be worth discussing. A second project should be to decide whether or not such a principle is true, and what follows from the answer.

I’d like to believe such a principle to be true. I *want* to deny bare distinctness. Thus, for example, I would like to believe that we could justifiably

<sup>39</sup>In discussion David Lewis suggested that this is not a serious problem, his opinion being that there is not an indefinite range of such relations: there’s set-theoretic notions, mereological notions, and that’s it. But I remain uncertain.

object to a theory which postulated intrinsically indiscernible and spatio-temporally coincident particles —*unless* the theory also involved some not-too-ad-hoc postulation of some *other* “dimension” of separation— some other kind of non-reflexive external relation by which such a pair of particles might be distinguished. Thus one might demand of the theory some enunciation of further facts about this relation, causal laws governing its relations with other properties discerned by the theory, and so on.

This claim however is hard to argue for. A good argument *against* it would be of great interest. For it would provide a good reason *for* trying to articulate a notion of primitive thisness stronger than any which could legitimately be extracted merely from the falsity of the Identity of General Relational Duplicates. For if something along the lines of the Denial of Bare Distinctness is false, then it would appear that there can be true distinctnesses, the truth of which can in no non-trivial way be seen as supervening on the ordinary properties and relations of the distinct entities involved. Perhaps positing “primitive thisnesses” would in that case be the only way to satisfy truthmaker intuitions in respect of such truths.

Our paradigm of purely extrinsic relations, I have suggested, is spatio-temporal relations. But distinct instances of spatio-temporal relations are not themselves unrelated: if  $x$  is spatio-temporally coincident with  $y$ , and  $y$  with  $z$ , then  $x$  is spatio-temporally coincident with  $z$ , for instance. They form a continuum or manifold with a distinct number of dimensions. They play a ubiquitous role in determining the kinds and degrees of causal interaction which may occur between the things which stand in them, and spatial and temporal location figure pervasively as indispensable parameters in physical laws and their application in prediction and explanation. (Perhaps the most conspicuous and ubiquitous example of this is the occupation of space by matter in a way which resists the presence or passage of other matter.) In fact this intertwining between spatio-temporal relations and relations of potential causal interaction and nomic connectedness are so pervasive that one may well suspect that the latter are somehow *constitutive* of the former (Brian C. Smith once remarked to me in conversation, “distance is what there’s no action at”). But the metaphysical imagination readily abstracts from all these features and connections, imagining purely external relations which might be analogous to spatio-temporal relations in serving to “relate” or “separate” things in a manner essentially independent of the intrinsic natures of those things, but without being in any other way analogous to actual spatio-temporal relations: not, for instance, forming a “space” having any kind of systematic intrinsic geometry. Is this a legitimate insight into metaphysical possibility, or some kind of bogus abstraction comparable with Descartes’ notorious proof of dualism by appeal to his capacity to be aware of himself as thinking while doubting the reality of his body? There could be a slippery slope here: there might be little to choose between believing

quite unrestrictedly in the possibility of such purely extrinsic relations applying quite arbitrarily —as a matter of brute fact, as we might say— to pairs of individuals, providing a potential ground for distinctnesses which would otherwise lack truthmakers<sup>40</sup>, and believing in the possibility of bare distinctnesses after all.

### *Denying Bare Modal Differences*

In any case, the view I would like to hold, if it could be sufficiently clarified, is one which at least denies the possibility of bare intra-world distinctnesses. In fact, I'm inclined to make stronger denials than that. For instance, I would wish to deny the possibility of bare modal differences. Thus in the example of the alternative scenarios of destruction in the case of the boulder constituting the mountain, I urged the view that on the scenario in which they are destroyed simultaneously as well as created simultaneously (and at all times between composed of the same matter), they should be counted as strictly and literally identical, making that a case of contingent identity, the alternative scenario a case of contingent distinctness. We represent the alternative possibility of Fido the boulder being destroyed but Spot the mountain surviving, compatibly with the fact of Fido the boulder's being strictly and literally identical with Spot the mountain, by reference to an alternative scenario in which Fido (a.k.a. Spot) has a boulder counterpart which is destroyed by shattering, but a mountain counterpart which survives in shattered form. An alternative view supported by many philosophers<sup>41</sup> holds Fido and Spot to be distinct entities even when they entirely coincide in respect of space, time and material constitution. This is not seen as a case of bare distinctness, since their distinctness is held to be entailed by difference in their *modal* properties: it would have been *possible* for Spot, but not for Fido, to have survived the event of shattering due to thermal stress. But to my mind, this bare difference in modal properties (and associated properties such as being essentially a mountain as opposed to being essentially a boulder) is pretty near as objectionable as bare distinctness itself: it simply compounds the cost associated with what appears to be a gratuitous multiplication of entities in place of a benign multiplication of counterpart-relations.

It's tempting, in a similar spirit to the denial of bare modal differences, to deny also that distinctness could depend solely on bare differences in cause or effect, or in dispositional properties, since differences in causes, effects,

<sup>40</sup>The *simplest* version of a Black world, as introduced above (as opposed to versions involving actual spatio-temporal relations), is in fact an example of just this kind.

<sup>41</sup>For just one representative example see Johnston (1992). For commentary, see Noonan (1993a). See also Noonan (1991).

or in dispositions (except perhaps where they form part of the “nomic profile” of fundamental entities or properties) should themselves depend on differences in some further respect. I shall conclude by briefly examining the issue of bare causal differences, both for its intrinsic interest and because I believe it may clarify what has come before.

*Barely Distinct versus Barely Causally Distinct*

The first thing to notice is that an attempt to strengthen the Denial of Bare Distinctness so as to prohibit distinctnesses depending on bare causal differences, will further complicate the issue of how to restrict the range of relations which should figure in interpreting the “*F*” of (*Q*\*) (and which are thus permitted to ground distinctnesses). A minimal form of the Denial of Bare Distinctness requires “*F*” to be restricted to predicates which are not thisness- or identity-involving (and not able to serve as logical surrogates of those which are), and I have already raised a doubt as to whether that line can be clearly drawn. A strengthened form of the principle would require “*F*” to be further restricted so as to exclude also “causation-involving” predicates, and these are likely to be an even less-clearly-demarcated class. The effect, if we could bring it off, would be to disallow the possibility of pairs of distinct entities distinguished by nothing but their causal relations to other things, but with no further difference from which those different causal relations might be seen as stemming. (Remember, once again, that this means that the entities would need to be spatio-temporally coincident.)

Let’s consider a pair of examples. Let’s attempt to imagine (A): a pair of persisting material entities which are exact qualitative duplicates and which furthermore are *barely* distinct, differing in no way beyond their thisness- and identity-involving relations (and necessary consequences of those differences, such as belonging to distinct unit sets), thus in particular in no way differing in their causal relations with anything; and (B): a similar pair of persisting material entities which may differ, not just in their thisness-involving and identity-involving relations, but also in their causal relations with things (and in necessary consequences of those differences). Let’s try to imagine that in each case these two entities exist in a possible world which (like the Black world examples) contains nothing beyond these entities themselves (or alternatively, to imagine that they in no way differ in their causal relations with any things from which they are both wholly disjoint).<sup>42</sup>

<sup>42</sup> I have throughout been using the word “distinct” to mean, simply “not identical”, so that “*x* is identical with *y*” and “*x* is distinct from *y*” are contradictories. Some philosophers use a notion of partial identity, which I equate with overlap in a mereological sense, i.e. having a part in common, and use “distinctness” as a contrary but not a contradictory of identity. Thus they can speak in their terminology of identity, distinctness, and, between the two, of partial identity. To refer to the relation which they label “distinctness” —the relation between *x* and

Case (A) is not easy to imagine, and this is as it should be, according to me, since if it were possible it would be a counterexample to the Denial of Bare Distinctness. For starters, notice that in both case (A) and case (B), the two entities must be spatio-temporally coincident. This probably already means that they will not be “material” entities in any sense which requires them to be constituted of any ordinary kind of matter which obstructs by its presence the presence of other matter<sup>43</sup>.

What follows will depend on my view that the continued existence over time of a material thing should be seen as a distinctive type of causal process. On a four-dimensionalist view, the existence and character of earlier stages or temporal parts of such a thing cause the existence and character of its later stages or temporal parts. But the view of material persistence as causal in nature is not itself dependent on four-dimensionalism. An anti-four-dimensionalist can say: the material thing, by being where and how it is at earlier times, causes itself to be where and how it is at later times. (This causal relation between a thing and itself—really a causal relation between a thing and a pair of times—may seem odd, but is in fact no more mysterious than the causal relation involved when something’s getting hot causes that thing to expand.) But it’s easier to say what is to follow in the terminology of four-dimensionalism, a view I advocate, so that is what I shall do.

Now let’s first consider case (B), the case of bare causal distinctness. Here’s how it works. Let *s* and *b* name our pair of qualitatively indiscernible, persisting, and spatio-temporally coincident material entities. Consider the

*y* when *x* and *y* have no common part—I am here using the term “wholly disjoint”. When I speak of a world containing nothing “beyond” the pair of entities “themselves”, I mean a world containing nothing wholly disjoint from both those entities.

<sup>43</sup> I say “probably” because after all, those who believe in bare *modal* distinctions believe that the barely-modally-distinct boulder and mountain can be exactly spatio-temporally coincident but distinct, whilst always being constituted of the *same* matter: so who is to say that someone might not embrace the possibility of barely distinct material entities *not even* differing in their material constitution? I do not need to resolve the issue since, just as I deny bare distinctness in general, I am inclined to deny that we can make good sense of the case, either way: I consider it partly as a sort of “*reductio*” exercise, to bring out just how difficult it is to make sense of genuinely bare distinctness, and partly in order to bring out the contrasts, such as they are, between this case and case (B). I myself, of course, accept the possibility of distinct entities which are *partly* spatio-temporally coincident, without requiring penetrable matter: the case in which the mountain survives the destruction of the boulder is such a case. See also Robinson (1985).

The possibility of making sense of a kind of stuff which is generically “matter” in something like a “folk” sense of the term, but which differs from actual naturally occurring kinds of matter in being “penetrable”, is explored in Robinson (1982). Note that if we decided that penetrable matter was an out and out impossibility, and somehow attributed this to the nature of spatio-temporal coincidence itself, we would be to that extent qualifying the view of spatio-temporal relations as paradigmatically extrinsic.

relation  $R(x, y)$  which holds when  $x$  causes some temporal part of  $y$  to exist. Our persisting material thing  $s$  has an earlier temporal part  $e(s)$  which causes a later temporal part  $l(s)$  of  $s$  to exist, and hence it's the case that  $R(e(s), s)$ . But we may suppose, given our assumptions, that it is not the case that  $R(e(s), b)$  since it is not  $e(s)$ , but its duplicate  $e(b)$ , which causes  $l(b)$ . Thus the pair  $\langle s, b \rangle$  satisfy  $(\exists z)(Rzx \& \sim Rzy)$  and hence may be distinguished by our criterion (Q\*)—supposing we can overcome our problems about clearly delineating the permissible substituends for “ $F$ ”, sufficiently for that criterion to distinguish anything. To rule out cases of bare causal distinctness we should have to extend the limits on permissible substituends for “ $F$ ” so that this way of satisfying (Q\*) would not after all be allowed. Should it be allowed?<sup>44</sup>

Case (B) is certainly less objectionable than case (A): indeed if case (A) seems at first thought to be somewhat intelligible, I suspect it's because we tend to confuse it with case (B). In case (A),  $s$  and  $b$  are *barely* distinct, hence we must suppose that in case (A),  $e(s)$  and  $e(b)$  do *not* bear different causal relations to  $l(s)$  and  $l(b)$ , but share equally in causing  $l(e)$  and  $l(b)$ <sup>45</sup>. If it's true that material persistence is a causal process—that material identity over time is constituted by causal connectedness, so that individuating material things is a matter of individuating causal processes—it looks as if case (A) involves a single causal process and hence the case ought to be considered one of a single persisting material object rather than a coincident pair. Thus even if we *do* accept that there might be counterexamples to the Denial of Bare Distinctness, it seems that we shall nevertheless be obliged to give up the idea that identity through time for the distinct entities involved in such counterexamples may be correctly accounted for in causal terms.

Thus though case (B) is intuitively less objectionable than case (A), this is not to say much. One might certainly have doubts about case (B) as a

<sup>44</sup> Accepting the propriety of this way of thinking about case (B) fits well with Lewis's attitude to duplicate possible worlds. (See Lewis (1986), p. 84.) Lewis professes himself agnostic about such worlds, though he does not think that the admission of them is necessary or useful in order to account for our ability to represent facts of *de re* modality and the like. Lewis sees causation as operating within, but not between, possible worlds. If at this point we cease limiting our consideration to issues of intra-world identity and distinctness, and let  $s$  and  $b$  be a pair of possible worlds which are exact duplicates, and ask how they stand with respect to (Q\*), we can treat them exactly as we treated case (B): these worlds bear distinct causal and spatio-temporal relations to the various entities which exist within them. If this is objectionably circular, it is a circularity very similar to that which I discuss in relation to case (B).

<sup>45</sup> In discussing case (A) here I'll use the same labels for  $s$ ,  $b$ , and their temporal parts, as in the preceding discussion of case (B).

possible case of genuine distinctness, because there is a kind of circularity, or something approaching it, evident in the way we appealed to (Q\*) in squaring it with the Denial of Bare Distinctness. Appealing to the distinct but otherwise indiscernible temporal parts  $e(s)$  and  $e(b)$  and their differing causal relations to the otherwise indiscernible  $l(s)$  and  $l(b)$ , and thus to  $s$  and  $b$  themselves, in arguing that  $s$  and  $b$  are not “barely” distinct, has a definite air of circularity. The temporal parts  $e(s)$  and  $e(b)$  can be distinct because of their different causal relations to  $l(s)$  and  $l(b)$  and hence to  $s$  and  $b$ ,  $l(s)$  and  $l(b)$  can be distinct because of their different causal relations to  $e(s)$  and  $e(b)$  and hence to  $s$  and  $b$ , and  $s$  and  $b$  can be distinct because of their different causal relations to these duplicate but distinct temporal parts. If we stick with an interpretation of (Q\*) in which “suitable” languages are minimally restricted so that, in particular, terms expressing causal relations or relations which imply them are *not* prohibited as substituends for “ $F$ ”, we are ruling out cases of Bare Distinctness such as case (A), but doing nothing to rule out cases such as case (B), which, I am suggesting, does not look a whole lot better. After all, what is case (B) but a case of two causal systems which, taken as wholes, are barely distinct from one another?

But if on the other hand we reject “bare” differences in causal relations as permissible truthmakers for distinctnesses, what might we with equal justification be obliged to reject along with them? Your typical Black world itself involves “bare” differences in *spatial* relations ( $s$  being allowed distinct from  $b$  through being spatially related differently than  $b$  is, to something, namely  $b$  itself), and we could portray that as involving a kind of circularity similar to that which I’ve just suggested is exhibited by case (B). I’ve suggested that it is plausible to accept the possibility of Black worlds and their ilk because spatio-temporal relations are our paradigms of external relations, and hence by definition nothing intrinsic to the terms of those relations can be *expected* to entail facts about those relations themselves: it’s in the nature of spatio-temporal relations, as we conceive of them, that they *must* be able to obtain “barely”. But if I am right that there is an intimate intertwining between spatio-temporal relations and relations of potential causal interaction, and the like, it may seem to risk inconsistency to ban bare differences in causal relations, but accept bare differences in spatio-temporal relations<sup>46</sup>.

Thus when I try to gauge the extent to which the Denial of Bare Distinctness can be strengthened, so as to prohibit distinctnesses grounded on bare

<sup>46</sup> There are other reasons for doubting whether we should deny the possibility of bare causal differences. See Tooley (1984) for one kind of case which arises once we take probabilistic causation into account. Needless to say, the exploration of these issues is intimately bound up with the exploration of that view (or as I see it, cluster of views) dubbed by David Lewis, “Humean Supervenience”, and (one part of) which is argued against in Tooley (1984). See also Robinson (1989).

causal differences, I reach an impasse reminiscent of that which I reached in trying to judge how successfully we might hope to precisify a statement of a minimal version of that principle. In each case, the problem is to know just how the class of permissible substituends for “*F*” in (*Q*\*) should be restricted, and the worry is that there is no clear way of disentangling, ultimately, differences to which it would intuitively be circular to assign the role of truthmakers for distinctnesses, and differences which would intuitively count as acceptable in that role. And I sense, dimly, that the problem arises in part from the very attempt to clarify these issues in a manner which abstracts away from actual empirical investigation and theorizing: an activity which perhaps relies too heavily on the supposition that the linguistic and conceptual structures we employ, mirror in relevant respects the structures of that reality we use them to talk and think about.

### *Concluding Remarks*

As I have said, despite the difficulties of clearly stating the Denial of Bare Distinctness (and despite the interest which would attach to its falsity), I am inclined to believe that something like it has to be true. And thus it seems that, despite my scepticism, I accept in this case a kind of truthmaker intuition after all. For the Denial of Bare Distinctness, as I envisage it (and setting aside such further issues as the denial of bare modal or bare causal relations) could be seen as amounting to a conjunction of the views a) that all distinctnesses need (non-trivial) truthmakers, and b) that truthmaking for distinctnesses, if it’s to be done at all, must be done by common or garden properties and relations rather than by some mysterious and ineffable one-knows-not-what about which nothing can be said except that it is whatever it needs to be to fulfill its inexplicable destiny of making true, distinctnesses which would otherwise lack truthmakers. The notion of truthmaking here employed, however, is not one which sees “truthmakers” as entities whose existence suffices for the truths which they make. It is merely the familiar notion of supervenience, and the Denial of Bare Distinctness is (setting aside further issues about bare modal differences, bare causal differences, and the like) simply the claim that distinctnesses must supervene on properties and relations other than identity, distinctness, or their logical consequences or surrogates.

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