

Trans-World Identification and Stipulation

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TRANS-WORLD IDENTIFICATION AND STIPULATION

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I

A central topic in the philosophy of modality is *the problem of trans-world identification*, i.e. the problem of identifying individuals in different possible worlds. Consider the possibility of Richard Nixon having continued as United States president for the duration of his second term in office. That is, consider a possible world in which this occurs. We may ask: Would the Democrats have regained the presidency, as they did in the actual world? Would they have nominated Jimmy Carter? And so on. But before we can answer, a philosopher interrupts. What determines whether the President in the possible world under discussion is Nixon? How can we know that it is Nixon rather than someone else who resembles Nixon in a variety of important respects, except for having finished out his presidency rather than resigning in disgrace? And furthermore, what does being Nixon consist in for someone in another possible world? In short, what is the *criterion*, or *criteria*, of trans-world identity that settle the question of whether someone in another possible world is Nixon? In a celebrated critique, Kripke has exposed the alleged problem of trans-world identity as a pseudo-problem (*Naming and Necessity*, Cambridge, Mass.: Harvard University Press, 1972, 1980, at pp. 15–20, 42–53, 76–77). He counters that possible worlds are not like independently existing planets with features to be investigated. “‘Possible worlds’ are *stipulated*, not *discovered* by powerful telescopes,” he says. “There is no reason why we cannot stipulate that, in talking about what would have happened to Nixon in a certain counterfactual situation, we are talking about what would have happened to *him*” (*op. cit.*, p. 44).

Kripke’s contention that possible worlds are “stipulated” has been seriously misunderstood.¹ Many philosophers take it as a thesis about

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the ontological and/or epistemological status of possible worlds, about how they came into being and how we come to know of them. They see Kripke as a *modal conceptualist*, who believes that possible worlds are somehow created by us with the properties that we assign to them (a position analogous in certain respects to constructivism about mathematical entities). Readers have thought that Kripke holds that we are the masters of metaphysical modality, in the sense that it is entirely for us to decide, by “stipulation,” what is metaphysically possible and what is not. These are serious misinterpretations. Kripke’s observation that “possible worlds are not discovered but stipulated” is simply his endorsement of a version of the doctrine that David Kaplan calls *Haecceitism*. The *haecceity* of an individual x is the property of being identical with x , i.e. the property of *being that very individual*. The term ‘Haecceitism’ has been used (perhaps I should say it has been usurped) for a variety of doctrines about possible worlds and the haecceities of the individuals existing in them. This may have been encouraged by Kaplan’s official definition. He writes:

[The doctrine that] we can meaningfully ask whether a possible individual that exists in one possible world also exists in another without taking into account the attributes and behavior of the individuals that exist in the one world and making a comparison with the attributes and behavior of the individuals that exist in the other world . . . [the] doctrine that holds that it does make sense to ask – without reference to common attributes and behavior – whether *this* is the same individual in another possible world, that individuals can be extended in logical space (i.e., through possible worlds) in much the way we commonly regard them as being extended in physical space and time, and that a common “thisness” may underlie extreme dissimilarity or distinct thisnesses may underlie great resemblance, I call *Haecceitism*. . . .

The opposite view, *Anti-Haecceitism*, holds that for entities of distinct possible worlds there is no notion of trans-world being. They may, of course, be linked by a common concept and distinguished by another concept – as Eisenhower and Nixon are linked across two moments of time by the concept *the president of the United States* and distinguished, at the same pair of moments, by the concept *the most respected member of his party* – but there are, in general, many concepts linking any such pair and many distinguishing them. Each, in his own setting, may be clothed in attributes which cause them to *resemble* one another closely. But there is no metaphysical reality of sameness or difference which underlies the clothes. . . .

Haecceitism holds that we can meaningfully speak of a thing itself – without reference either explicit, implicit, vague, or precise to individuating concepts (other than being *this* thing), defining qualities, essential attributes, or any other of the paraphernalia that enable us to distinguish one thing from another. It may

be that each thing has essential attributes with which it is vested at all times and in each possible world in which it exists. But that is an issue posterior to whether things have trans-world being.²

There are at least three distinct doctrines here each labeled ‘Haecceitism’. David Lewis takes the central point of Haecceitism to be that there are purely qualitatively identical possible worlds that are nevertheless distinct in virtue of the individuals represented in those worlds and how they are represented as being.³ This is a doctrine that Kripke explicitly declines to endorse or reject (*ibid.*, p. 18). Despite the usual gloss on Kaplan’s explanations, the central doctrine of Haecceitism is not concerned primarily with the identification of individuals in distinct possible worlds – although the doctrine does have important consequences concerning cross-world identifications. The central doctrine primarily concerns an issue of *legitimacy*. It concerns the question of whether it is “meaningful” to stipulate the facts about particular individuals in particular possible worlds, including such facts as that the individual with such-and-such properties in a given world w is a particular individual a , or is not the particular individual a , as the case may be. Haecceitism holds that it is perfectly legitimate when introducing a possible world for consideration and discussion, to specify the world explicitly in terms of facts directly concerning particular individuals, designating those individuals directly by name if one chooses to.

An extreme version of the doctrine – *Extreme Haecceitism*, as I shall call it – combines Haecceitism in the preceding sense with a further doctrine: that facts concerning the particular individual a are in some relevant sense primitive, not reducible to any more general facts, such as that the individual with such-and-such properties is thus-and-so. Extreme Haecceitism holds that it is legitimate to stipulate facts concerning particular individuals in a world, identifying those individuals by name, precisely *because* such facts about a world are held to be *separate* facts that are not fixed by, and cannot be logically inferred from, facts that do not specify which individuals are involved. I shall use the term ‘Reductionism’ for the opposing doctrine that any such facts about a world w as that the individual with such-and-such properties is a , or is not a , if indeed such facts exist, are reducible to such qualitative facts as that the individual with such-and-such properties in world w is the individual with

so-and-so properties in world w' (where the so-and-so properties are similar, or closely related, to the such-and-such properties).

Unfortunately, it is unclear what it means to say that facts of one kind are *reducible* to facts of another – or using alternative terminologies, that facts of the first kind “consist in,” or are “nothing over and above,” facts of the second kind, or that facts of the one kind are “grounded in,” “derived from,” “based upon,” “constructed out of,” or “constituted by” facts of the other kind. The central idea seems to be that any fact of the first kind is a *logical* or conceptual consequence of facts of the second kind. An example would help enormously here. But there are precious few, if any, uncontroversial examples. One example from the philosophy of language may do. On Frege’s philosophy of semantics, the referential (denotative, designative) facts concerning a language are reducible to other sorts of facts – in particular to intensional-semantic facts about what the sense of an expression is together with extra-linguistic facts about what a given sense metaphysically determines. To illustrate, the English noun ‘water’, in its use as a name for the familiar liquid, semantically expresses a certain concept (or property) c as its English sense, perhaps *the colorless, odorless, potable liquid found (with varying amounts of impurities) in lakes, rivers, and streams*.⁴ This is a fact in the theory of meaning – a fact concerning the semantics of sense – and not a fact in the theory of reference. The concept c , in turn, metaphysically determines the chemical compound H_2O , in the sense that the compound exactly fits c and (let us suppose) no other substance does. This fact is completely independent of language. It is a straightforward logical consequence of these two – the meaning fact and the metaphysical fact – that there is some concept or other such that the word ‘water’ expresses that concept as its English sense and that concept in turn determines H_2O . The latter, according to a Fregean philosophy of semantics, just *is* the fact that ‘water’ refers in English to H_2O . This fact is thus partly semantic and partly metaphysical in nature.⁵ In this sense, the fact that the English noun ‘water’ refers to H_2O is “nothing over and above” (consists in, is grounded in, is derived from, etc.) the two facts that the English noun ‘water’ expresses c and that c determines H_2O .⁶

A doctrine more extreme than simple Reductionism opposes simple Haecceitism. *Anti-Haecceitism* is the doctrine that in introducing

a possible world for consideration and discussion, one may not legitimately specify facts while mentioning the individuals involved by name (or by something similar, such as by a demonstrative uttered while pointing to an actual individual). Instead, one may specify only the general, qualitative sorts of facts to which the facts concerning a particular individual (if there are any such facts) are reducible according to Reductionism. Specifying the facts concerning a particular individual *a*, explicitly identifying *a* by name, is regarded as a form of cheating – or rather, it is held to be meaningless. Some Anti-Haecceitists go so far as to reject the very existence of such facts about a world as that the individual with such-and-such properties is, or is not, the very individual *a*. They hold that one may not legitimately specify such facts in giving a possible world for the simple reason that there are no such facts to be specified. This view might be called ‘Extreme Anti-Haecceitism’. Less extreme Anti-Haecceitists embrace Reductionism, holding that while there are facts directly concerning specific individuals, they are reducible to general facts to the effect that the individual with such-and-such properties is, or is not, the individual with so-and-so properties. Extreme Haecceitism, in contrast to Anti-Haecceitism (and in sharp contrast to Extreme Anti-Haecceitism), holds that the former facts are *further* facts over and above general facts, not reducible to or constructed out of the latter. Along with the general facts, these separate facts concerning specific individuals are held to be built into the very fabric of the possible worlds themselves.

Little or no notice has been made in the extant literature on Haecceitism of the distinction between the moderate and extreme versions of these various doctrines. I have endeavored to make my usage correspond as closely as possible to established usage of the terms ‘Haecceitism’ and ‘Anti-Haecceitism’. That is why I introduce the special terms, ‘Extreme Haecceitism’ and ‘Reductionism’, for the opposing doctrines concerning the question of reducibility (which is less often the primary focus), and a third term, ‘Extreme Anti-Haecceitism’, for what may be the most controversial of the doctrines. Extreme Haecceitism and Reductionism are the exact denials of one another. Extreme Haecceitism, therefore, might also be called ‘Anti-Reductionism’. One may consistently combine Haecceitism (*simpliciter*) with Reductionism by holding that it is legitimate to

introduce a possible world for consideration by stipulating which facts concerning particular individuals obtain in the world even though such facts are reducible to, or nothing over and above, other sorts of facts. As we shall see, it is possible that Kripke takes this position.

The various versions of Haecceitism and Anti-Haecceitism are perhaps best formulated by invoking a concept from the theory of propositions, that of a *singular proposition*. A singular proposition is a proposition in which at least one individual or object that the proposition is about occurs directly as a constituent, and the proposition is about that individual by virtue of directly including it, rather than a concept by which the individual is represented (determined, denoted). In introducing the terminology of ‘singular propositions’, Kaplan equates Haecceitism with the acceptance of singular propositions (*ibid.*, pp. 724–725). More accurately, Haecceitism is the doctrine that one may legitimately cite singular propositions in specifying the propositions that are true in a possible world introduced for discussion. Extreme Haecceitism is the stronger doctrine that the truth values of any and all manner of singular propositions are among the primitive, brute facts about which propositions are true and which are false in a given possible world. If one conceives of possible worlds as maximal compossible sets of propositions, then Haecceitism holds that possible worlds include singular propositions among their elements in addition to non-singular, or general, propositions, and Extreme Haecceitism holds that the entire subset of non-singular propositions included in a world to the effect that the *F* is such-and-such, for particular properties *F*, logically entails no singular proposition to the effect that *x* is such-and-such. Reductionism holds that the subset of singular propositions, assuming one countenances such propositions at all, is fixed by the subset of non-singular propositions. Anti-Haecceitism (*simpliciter*) holds that possible worlds include *only* general propositions to begin with, leaving open the question of the truth values of any singular propositions, and Extreme Anti-Haecceitism denies that there are any singular propositions to be concerned about.

As Kaplan points out, one should strictly speak of Haecceitism, Anti-Haecceitism, and their variants as relativized to a particular kind of entity *K*, as for example, *Anti-Haecceitism with regard to concrete*

things, Reductionism with regard to social institutions, etc. Reductionism with regard to political nations, for example, is the oft-cited doctrine that facts involving political nations are reducible to other sorts of facts, such as the actions and histories of particular persons. Extreme Haecceitism regarding political nations is the denial of this alleged reducibility. Haecceitism with regard to a kind K is logically independent of Haecceitism with regard to any logically independent kind K' . One may consistently combine Haecceitism regarding human bodies with Anti-Haecceitism regarding persons, for example, by holding that it is legitimate to specify which bodies exist in introducing a possible world for consideration but not to specify which persons exist in that world.

The astute reader will have noticed that I have described the various versions and variants of Haecceitism and Anti-Haecceitism without mentioning the alleged problem of trans-world identification, focusing instead on the role of facts concerning specific individuals in presenting a possible world. How does the trans-world identity problem come in? On Anti-Haecceitism regarding individuals, possible worlds do not include specific individuals themselves. Instead they provide a structure and framework, given purely qualitatively, in which individuals are represented by means of individual concepts. It is not labelled which individual a given individual concept represents. For the Anti-Haecceitist, then, there is a special problem about how the individuals thus represented in distinct possible worlds are to be identified with, or distinguished from, one another. If identification is your game, some assembly is required. And all one has to go on are the individual concepts that represent the individuals. One thus needs criteria of trans-world identity. There is no like problem for the Haecceitist, since facts concerning specific individuals may be given directly in specifying the possible worlds under discussion. This is what Kripke means when he says that a possible world need not be given purely qualitatively. Haecceitism holds that facts concerning the haecceities – or in more ordinary parlance, the identities – of specific individuals may be taken as given in introducing a possible world for consideration, and Extreme Haecceitism holds that all facts concerning specific individuals are directly settled by the internal make-up of the possible worlds themselves. Possible worlds come already equipped with identification labels for the

individuals that exist in them. No assembly is required, no identity criteria needed.

Kripke's assertion that possible worlds are not discovered but stipulated is a somewhat less felicitous way of stating what I take to be the central doctrine of Haecceitism *simpliciter*, or a closely related doctrine. Criteria for trans-world identity are to be replaced by stipulations. In fact, in this respect possible worlds are no different from anything else that might come under discussion. Suppose I say, "Some cities have monuments made of marble," as a prelude to saying something about some or all such cities. It would be silly (at best) for someone to object that while there are indeed marble monuments in *this* city (the city we are in), I must justify my claim that the monuments in the other cities I have in mind are really made of marble – instead of, say, some other material that was fashioned to look the way marble looks around here. I am discussing cities with marble monuments. I do not have to specify the relevant class of cities purely qualitatively and then provide a criterion for intercity identity of material. I simply select the class of cities that I wish to discuss by specifying that they have monuments made of . . . , well, *marble*. Kripke contrasts possible worlds, which he says are stipulated, with planets, which are discovered. This may have given the wrong impression. Even independently existing planets may be stipulated in the sense that Kripke intends. One astronomer says to another, "There are undoubtedly thousands of planets that, like Earth, have significant amounts of oxygen in their atmospheres. What is the temperature range for such a planet?" Suppose a philosopher who has been eavesdropping interrupts, "Not so fast. How do you know, and what makes it true, that the atmospheric gas on the planet in question is oxygen, rather than some other element that superficially resembles oxygen? After all, you're not on that planet; you're in no position to send up a weather balloon or to conduct other atmospheric experiments. Are you supposing that, say, atomic number provides a criterion for interplanetary identity of elements? If so, why atomic number? Why not some other feature, like that of having its source in the particular portion of ancient post-Big-Bang material from which our Earthbound oxygen was originally formed?" A reaction by the astronomers of eye-rolling annoyance would be completely justified. The astronomer simply *stipulated* that he discussing planets

that have significant amounts of oxygen in their atmospheres. Even if interplanetaty identity criteria for elements are readily available, our astronomer is under no obligation to specify the planets he has in mind purely qualitatively and then ensure that they contain significant amounts of oxygen by providing the available criteria. It is in this sense that even planets are “stipulated.” When Kripke says that we do not discover but stipulate possible worlds, he is not making a special claim about their peculiar ontological or epistemological status, or about our peculiar status *vis a vis* possible worlds. Nor is he claiming that we decree what is possible and what is not. Instead what he means is that the question of which class of possible worlds is under discussion (and in particular the question of which individuals exist in those worlds) is like the matter of which class of entities of any sort is under discussion – whether they be animals, vegetables, minerals, sticks, stones, or even planets. It is a matter that is entirely open to, and may be entirely governed by, the stipulations of the discussants. The possibility of simply stipulating which individuals are involved renders trans-world identity criteria unnecessary.

II

Kripke argues that there remains a problem of trans-world identification even for the Haeccetist:

Although the statement that England fought Germany in 1943 perhaps cannot be *reduced* to any statement about individuals, nevertheless in some sense it is not a fact ‘over and above’ the collection of all facts about persons, and their behavior over history. The sense in which facts about nations are not facts ‘over and above’ those about persons can be expressed in the observation that a description of the world mentioning all facts about persons but omitting those about nations can be a complete description of the world, from which the facts about nations follow. Similarly, perhaps, facts about material objects are not facts ‘over and above’ facts about their constituent molecules. We may then ask, given a description of a non-actualized possible situation in terms of people, whether England still exists in that situation, or whether a certain nation (described, say, as the one where Jones lives) which would exist in that situation, is England. Similarly, given certain counterfactual vicissitudes in the history of the molecules of a table, *T*, one may ask whether *T* would exist, in that situation, or whether a certain bunch of molecules, which in that situation would constitute a table, constitute the very same table *T*. In each case, we seek criteria of identity across possible worlds for certain particulars in terms of those for other, more ‘basic’, particulars (*ibid*, p. 50).

What exactly is Kripke's distinction between facts of one kind being "reducible" to those of another, on the one hand, and facts of the first kind merely not being facts "over and above" those of the second, on the other hand? And how does this problem of trans-world identification differ from the pseudo-problem whose illegitimacy is exposed by the observation that possible worlds are stipulated?

Three inter-related notions must be distinguished. We first define *modal supervenience*, as follows:

Properties of kind K *modally supervene* on properties of kind K' =_{def} For any class c of K -properties and for any class c' of K' -properties, if it is metaphysically possible for there to be something whose K -properties are exactly those in c and whose K' -properties are exactly those in c' , then it is metaphysically necessary that anything whose K' -properties are exactly those in c' is such that its (his/her) K -properties are exactly those in c .

Thus, to say that K -properties modally supervene on K' -properties is to say that either it is metaphysically necessary that anything that has exactly such-and-such K' -properties also has exactly so-and-so K -properties or else it is metaphysically impossible for anything to have exactly such-and-such K' -properties and also have exactly so-and-so K -properties. Or put another way, which K -properties a thing has is metaphysically necessitated by which K' -properties it has. For example, to say that a person's psychology modally supervenes on his/her brain and its physical states is to say that a complete accounting of the facts concerning a person's brain and its physical states leaves room for only one possible outcome concerning his/her psychology, in the sense that it would be metaphysically impossible for the person's brain to be in exactly those physical states while the person has a different psychology (even one that is only slightly different).

One may define a notion of *conceptual reducibility* by means of a simple adjustment in the above definition of supervenience, changing the metaphysical modalities to *conceptual* (or properly *logical*) modalities. It may be assumed here that conceptual necessity entails metaphysical necessity but not vice versa. What is conceptually necessary is true in every conceptually possible world, including such worlds as are metaphysically impossible. To say, then, that properties of kind K are *conceptually reducible* to properties of kind K' is to say that for any class c of K -properties and for any class c' of K' -properties, if it is conceptually (or logically) possible for there to be

something whose K -properties are exactly those in c and whose K' -properties are exactly those in c' , then it is conceptually (logically) necessary that anything whose K' -properties are exactly those in c' is such that its (his/her) K -properties are exactly those in c . The idea here is that either it is conceptually necessary (a logical or analytic truth) that anything that has exactly such-and-such K' -properties also has exactly so-and-so K -properties or else it is conceptually incoherent (logically inconsistent) for anything to have exactly such-and-such K' -properties and also have exactly so-and-so K -properties. Or put another way, which K -properties a thing has is a logical consequence of which K' -properties it has. For example, on Frege's meta-semantical theory, the referential semantics for a language is reducible to the language's intensional semantics (i.e., its semantics of sense) together with some metaphysics, in that the referential properties of a language are reducible to the language's sense properties taken together with the extra-linguistic matter of what objects are determined by those senses. Given that conceptual necessity entails metaphysical necessity but not vice versa, it follows that conceptual reducibility entails modal supervenience but not vice versa.⁷ A claim to the effect that K -properties supervene on K' -properties therefore normally carries the implicature that K -properties are *not* reducible to K' -properties. And indeed, when philosophers explicitly advocate a supervenience thesis, they often explicitly contrast that thesis with the corresponding reducibility thesis, which they reject, or at least decline to endorse.

This kind of conceptual reducibility must be distinguished from a stronger relative. Let us say that properties of kind K are *strongly conceptually reducible* to properties of kind K' if for any class c of K -properties there is a class c' of K' -properties such that, by conceptual (logical) necessity, a thing's K' -properties are exactly those in c' iff that thing's (his/her) K -properties are exactly those in c . The idea here is that there are particular K' -properties such that it is conceptually necessary (a logical or analytic truth) both that anything that has exactly those K' -properties also has exactly so-and-so K -properties and vice versa. Or put another way, there are K' -properties such that a thing's having those properties is equivalent (logically or analytically) to its having such-and-such K -properties.⁸

Perhaps the most natural interpretation of Kripke's remarks is the following. A table's haecceity – the matter of which table it is, and in particular whether it is the particular table *T* – is not strongly conceptually reducible to the history of its molecular constitution and the configuration of those molecules – any more than England's haecceity, or its political history, is strongly conceptually reducible to features of the individuals who have made up its population and to their inter-relations with each other and with others. But a table's haecceity is conceptually reducible to its original molecular constitution in the weaker sense. This is the sense in which the table's haecceity is not a fact "over and above" facts about the history of its material constitution. And this weaker kind of conceptual reducibility yields a genuine question concerning trans-world identification of an actual table *T*. We consider a world – let us call it '*s*' – in which, it is stipulated, some table or other is the only one ever constructed by configuring exactly such-and-such molecules exactly thus-and-so. We then consider the legitimate issue of whether the table so constructed in *s* is the actual table *T*. We are simply asking whether the description of the table in *s* in terms of its original material constitution entails that the table in question is, or is not, the very table *T*. The conceptual reducibility of a table's identity to its original material constitution ensures that, in some cases at least, there will be an answer to this question. This problem of trans-world identification is different from the pseudo-problem about Nixon. Kripke seems to endorse this new trans-world identification problem as genuine.

There is a problem with this problem. Genuine, full-fledged possible worlds are fully specific with respect to all questions of fact, down to the finest of details. The so-called world *s* is not fully specific in the require way. There are numerous alternative conceptions of what a possible world is. (Not all of these need be thought of as competing conceptions.) The conception I favor is that of a maximally specific scenario that might have obtained.⁹ On this conception (and on suitably closely related conceptions), the scenario *s* is the intersection of an infinite plurality of possible worlds, i.e. a constituent "mini-world," or sub-scenario, common to each. It may be regarded as representing the class of those worlds in which some table or other is the only one to originate with exactly such-and-such molecules configured exactly thus-and-so.

Can we simply *stipulate* that the table so formed is *T*? Haecceitism regarding artifacts implies an affirmative answer. More importantly, on Extreme Haecceitism regarding artifacts, the matter of whether the table so formed is *T* *should* be stipulated, since the identity (haecceity) of the table is a further fact, not reducible to facts about its original material constitution. If we can simply stipulate that the table so formed is *T*, then we should be equally free to stipulate instead that the table so formed is some table other than *T*. Again, Haecceitism regarding artifacts implies that this is indeed so. Of course, the table cannot be both *T* and some table other than *T*. But we are not considering making incompatible stipulations concerning the table's identity simultaneously. We are considering selecting one of them. And why not?

There is no particular reason why not. We can legitimately do this. As we have seen, *s* represents a class of worlds. That class, it turns out, is diverse. The new problem of trans-world identification – the question concerning the table's identity in *s* – presupposes that in each of the worlds represented by that scenario, the identification goes the same way. This presupposition is erroneous. In some of the worlds represented by *s*, the table so constituted is *T*. In others of those worlds, the table is not. It is illegitimate to ask whether the table in *s* is *T*. This is a matter to be settled by a stipulation concerning which worlds of type *s* are under discussion. We may say, "Consider a world of type *s* in which the table so constituted is *T*." We may also say, "Consider another world of type *s*, different from the last one, in which the table so constituted is this other table, *T'*." Given Extreme Haecceitism, both sorts of worlds – both of these scenarios – are equally legitimate. They are equally legitimate *qua* scenarios. Neither is incoherent.

The new alleged problem of trans-world identification does not presuppose the controversial thesis that the haecceities of artifacts like tables are strongly conceptually reducible to facts about matter. But it is still every bit a Reductionist problem of trans-world identification, since it presupposes the less controversial, but still contentious, thesis that an artifact's haecceity is conceptually reducible in the weaker sense. The alleged problem will be dismissed by the Extreme Haecceitist (such as myself), and in nearly the same way that Kripke dismissed the more traditional problem – as a pseudo-

problem that presupposes a false and unwarranted philosophical doctrine. What I believe to be the correct response to the question raised goes something like this: You, the poser of the question, must tell us which table is the one so constituted. Until you do, you have not provided a genuine world which is specified fully enough to settle the question. It is not for us to *determine* which table is in question. It is up to you to *stipulate* which class of worlds you have in mind. As stated, your question presupposes that the identification of the table so constructed automatically goes the same way for all worlds of type *s*. Since the identification you seek is not reducible to the facts you have given us, that presupposition is false. Until you make the necessary stipulations, your question is unanswerable in principle. And once you make the necessary stipulations, the answer is then trivial.¹⁰

Extreme Haecceitism (Anti-Reductionism) makes this kind of dismissal an entirely appropriate response. And in fact, a version of Extreme Haecceitism is susceptible of something like a proof. Suppose, for a *reductio*, that there is an object *x* from a possible world *w* and an object *y* from a possible world *w'* such that the fact that $x = y$ is reducible in the weaker sense to (or consists in, is nothing over and above, is derived from, etc.) general facts about *x* in *w* and *y* in *w'*. (Their identity might be reducible, for example, to *x*'s bearing the relation *R* in *w* to a cross-world entity of a certain sort to which *y* bears *R'* in *w'*, for appropriate intra-world relations *R* and *R'*.¹¹) It is evident, by contrast, that the fact that $x = x$ is not similarly reducible to general facts about *x* in *w* or in *w'*. For the fact that $x = x$ is a fact of logic. If it is grounded in any other fact at all, it is grounded only in *x*'s existence (in *w* or in *w'*). But then *x* differs from *y* in at least one respect. For *x* lacks *y*'s feature that its identity with *x* is grounded in general (cross-world) facts about *x* and it. Conversely, *y* lacks *x*'s feature that its identity with *x* is a primitive fact, not grounded in any general facts about *x* other than its existence. Either way, it follows by Leibniz's Law that *x* and *y* are different objects, contradicting the hypothesis that they are identical.¹²

III

There is a remaining problem of trans-world identification that may arise even for the Extreme Haecceitist. Imagine that the table *T* is actually fully dismantled and a table is fashioned by configuring exactly such-and-such molecules exactly thus-and-so, as given in the description of *s*. Imagine this really happening. Which table is so constructed? More specifically, is it *T*, or is it some other table?

This is not in any way a matter to be settled by stipulation. Surely there already is some fact of the matter concerning the resulting table's identity with, or distinctness from, *T*. For suppose instead that there is no such fact. Then the table so formed is to that extent unlike *T* (for which there is indeed such a fact). Since they are thus not exactly alike, the table so constituted is distinct from *T*. But then there is a fact of the matter after all.¹³ It is not subject to our control what that fact is. If the table so constituted is *T*, that is not at all a result of my (or of our) stipulating that this should be so. No one has made any such stipulation, nor would it have the slightest effect on things if one did. Instead the table's being none other than *T* seems to be somehow a result of the way the table was constructed, somehow a result of the fact that the table was put together in just this way. The whole business of identity criteria being replaced by Kripkean stipulations seems beside the point, if not completely wide of the mark.

One may feel uneasy about the idea of going beyond mere consideration of the possibility of a given situation, and instead imagining it to be actual. We know it is not actual. Why pretend that it is?

For a simple reason. The point is to mobilize intuitions concerning what *would* be the case if *s had* occurred. If, counterfactually, exactly such-and-such molecules had been configured exactly thus-and-so, then there would be a resulting fact as to whether the table so constituted was *T*, and that fact would not be a matter of our stipulating what is so. Kripke's observation that "possible worlds are stipulated," properly understood, is simply a recognition of the fact that in considering certain possibilities, we are free to stipulate which possibilities we have in mind by specifying which individuals are involved in them. As we have already seen, it is not a thesis to the effect that what is possible with respect to those individuals is subject to our decision. Nor is it a thesis to the effect that we decide

what *would* be the case under certain counterfactual circumstances. There is already a fact of the matter, independently of us, as to which table the table so formed would be if *s* had occurred. Suppose that the table in question would be *T*. If so, this appears to be a direct result of the fact that the table was formed by configuring exactly such-and-such molecules exactly thus-and-so. Insofar as it is true that if *s* had occurred, the resulting table would be *T*, something significantly stronger is equally true. It is not as if the scenario *s* might have had different results. If the resulting table would have been *T* had *s* occurred, then it is in fact metaphysically *impossible* for *s* to occur with the resulting table being some table other than *T*. In a word, it is *necessary* that the table formed in *s* is *T*.

Earlier I said that the class of worlds represented by *s* is diverse, that there are possible worlds in which *s* is realized and the resulting table is *T* and other worlds in which *s* is realized and the resulting table is some other. Now I am saying that one of these outcomes is impossible, that there are not different possible worlds in which different tables result. I seem to have contradicted myself.

I have not. In previous work I have defended the idea that in whatever sense it is correct and useful to recognize possible worlds as entities, it is equally correct and useful to acknowledge that there are also *impossible worlds*.¹⁴ At this juncture, I invoke the doctrine. Haeccetism does not entail that it is in some way for us to decide what is, and what is not, metaphysically possible. Even Extreme Haeccetism does not entail this. Haeccetism simply holds that in introducing a world for consideration and discussion, we are free to stipulate the facts that obtain in the world. Depending on what we stipulate, the world, or worlds, we so introduce may turn out to be impossible rather than possible. This is so even if it was our intent to stipulate a possible world. We decide which individuals exist and what properties they have in the world we wish to consider, but Metaphysics decides, under its own authority, whether such a world is possible or impossible. The latter issue is completely out of our hands. There are indeed *s*-type worlds in which the resulting table is *T*, and there are indeed other *s*-type worlds in which the resulting table is some other, any other one likes. This is a consequence of Extreme Haeccetism. The question of the resulting table's haeccetity – the question of which table it is – is not to be found among, and does

not reduce to or consist in, the facts that are given in the description of *s*. There are many different ways for the identification to go. But most of those ways are quite impossible. In all of the genuinely *possible s*-type worlds, the resulting table is the same. This is fixed by law but not by legislation. It is fixed by Metaphysical law.

It emerges from this analysis that the new problem of trans-world identification bifurcates into two very different problems, differing over whether Reductionism is presupposed. A scenario like *s* is first set out, and the question of the resulting table's identity then posed. If the question is put forward under the presupposition of Reductionism, it is assumed that one has been given all the facts that are required for deciding the answer, taking the question as concerning *all* the worlds represented by *s*, possible and impossible. One may restrict one's focus to possible worlds, but there is no need to do so. The same answer will obtain for the impossible worlds as well, or at least for the logically consistent ones. For the Reductionist, so-called criteria of identity are reductionist analyses or definitions of what it is for a pair of individuals in different worlds to be identical – or at least analytic sufficient conditions for cross-world identity. The question posed is, in effect, an inquiry whether an analytic sufficient condition for cross-world identity of tables has been satisfied. We may call this *the Reductionist problem of trans-world identification*. As an Extreme Haecceitist, I reject this alleged problem as bogus along with the more traditional problem of trans-world identification.

If the question of the resulting table's identity is put forward without presupposing Reductionism, one is then presumably being asked to confine one's attention to genuinely possible worlds. In those *possible* worlds in which *s* is realized, which table results? In particular, if *s* were realized, *would* the resulting table be *T*? This question is perfectly legitimate. The facts of the case are sufficient to zero in on one metaphysically necessary outcome. That is to say, even if the resulting table's identity (haecceity) is not even conceptually reducible in the weaker sense to the sorts of facts that one is given in describing *s*, the resulting table's identity does nevertheless supervene modally on exactly such facts.

On the modal-supervenience interpretation of the new problem of trans-world identification, it is a demand for a metaphysical principle, or principles, that entail the answer to the question of whether

the table originally constituted by such-and-such molecules is *T*. It is, in effect, a demand for *T*'s *essence*, in the sense of a property such that it is metaphysically necessary that a table has the property if and only if it is the very table *T* and no other. Or perhaps it is a demand merely for a modally *sufficient* property for *T*'s haecceity, i.e. a property such that necessarily, any table with that property is the very table *T* and no other. Or at the very least, it is a request for an *essential* property of *T*, i.e. a property that *T* has necessarily. The sought-after modal property must be adequate to the task of answering the question of the resulting table's relationship to *T*, interpreted now as a question about genuinely possible worlds in which *s* obtains. This is *the Essentialist problem of trans-world identification*, to be distinguished from the Reductionist problem. The Essentialist problem does not presuppose that the sort of fact sought in answer to the identity question is strongly conceptually reducible to, or even weakly reducible to ("not a fact over and above"), facts of some other sort. The problem is perfectly compatible with the Extreme Haecceitist thesis that identity facts are further facts. Even by the Extreme Haecceitist's lights, it may be seen as a legitimate, and nontrivial, philosophical problem.

In posing a new problem of trans-world identification, does Kripke mean the Reductionist problem or the Essentialist problem? The textual evidence is inconclusive. He frames his problem explicitly asserting of facts of one kind (the haecceity of the physical object composed of such-such molecules) that they are "not facts over and above," and "follow from a description of," facts of another kind (facts about the component molecules themselves). He also cites the traditional Reductionist's stock claim that facts about political nations are in this sense nothing over and above facts about people, as an illustration of what he has in mind. And he explains what he means in denying that the facts of the first kind need be "reducible to" the facts of the second, saying that instead there may be "some 'open texture' in the relationship between them," which precludes any "hard and fast identity criteria." These features of Kripke's discussion suggest that he intends the Reductionist problem rejected here, as opposed to the Extreme-Haecceitist/Essentialist problem endorsed here.¹⁵

NOTES

¹ A dramatic case in point is Allen Hazen, in “Counterpart-theoretic Semantics for Modal Logic,” *Journal of Philosophy*, 76, 6 (June 1979), pp. 319–338. Hazen asserts (pp. 334–335) that when Kripke says that possible worlds are stipulated rather than discovered, what he means, in part, may be explained by saying that a possible world is a combination of a purely qualitatively specified world together with a particular stipulated choice among various similarity correspondences or mappings (which need not be one-one) between individuals in other worlds and individuals of the qualitatively specified world. Hazen thinks of the similarity correspondences as schemes that represent an individual in some other world by means of a selected counterpart in the qualitatively given world. Hazen’s entire apparatus is decidedly anti-Kripkean. Kripke adamantly insists that possible worlds need not be purely qualitatively specified, and that the very same individuals may exist in different possible worlds rather than being represented in another world by “counterparts” in that world.

² Kaplan, “How to Russell a Frege-Church,” *Journal of Philosophy*, 72 (1975), pp. 716–729, at 722–723.

³ *On the Plurality of Worlds*, p. 221. Lewis compares and contrasts his understanding with a budget of various alternative doctrines that have also gone by the same name of ‘Haecceitism’ (pp. 222–227).

⁴ I use the word ‘concept’ here in the same sense as Alonzo Church, which is decidedly distinct from that of Frege’s artificial use of the German ‘*Begriff*’.

⁵ In the terminology and conceptual apparatus of my “Analyticity and Apriority,” in J. Tomberlin, ed., *Philosophical Perspectives*, 7: *Logic and Language* (Atascadero, Ca.: Ridgeview, 1993), pp. 125–133, the fact in question is (according to Frege’s theory of it) a fact of *applied* rather than *pure* semantics, since it involves some extra-linguistic metaphysics.

⁶ The notion of reducibility involved here will be clarified further below. An alternative notion of reducibility results by replacing the relation of logical consequence with the notion (metaphor?) of part-whole constitution. We may say that a fact *f* is *mereologically reducible* to a class of facts *c* if *f* is literally composed, without remainder, of the elements of *c*. Thus a mereologically complex fact is mereologically reducible to its constituent sub-facts. This notion is suggested by a more literal construal of the terminology of one fact being nothing over and above, or consisting in, etc., a plurality of other facts. The notion presupposes a picture of compound facts as complex wholes resulting from an assemblage of other facts. This picture raises baffling questions about the relationship between mereological reducibility and the logical or conceptual notion of reducibility explicated in the text. On Frege’s meta-semantical theory, is the fact that the English word ‘water’ refers to H₂O mereologically reducible to other facts? In particular, does it mereologically reduce to the pair of facts that ‘water’ expresses *c* and that *c* metaphysically determines H₂O? Is it supposed to be obvious that it does? Suppose ‘water’ had expressed a different concept in English, but one which also determines H₂O. Would the fact that ‘water’ refers in English to H₂O then be a different fact, consisting of different sub-facts? Let us say that the proposition that such-and-such, if it is true, *corresponds to* the fact that such-and-such. On some theories, this relation of correspondence is simply identity restricted to true propositions. Suppose that a proposition *p* corresponds to a mereologically reducible

fact f , and that propositions q_1, q_2, q_3, \dots correspond to the sub-facts to which f mereologically reduces. Is p then logically equivalent to the conjunction ($q_1 \& q_2 \& q_3 \& \dots$)? Or is p merely a logical consequence of the conjunction? Or might the two even be logically independent?

Lacking answers to these and other questions, I shall rely in the text primarily on the conceptual notion of reducibility that invokes logical consequence rather than the part-whole relation. It may be useful, however, to bear in mind the possibility that a particular author may instead mean the mereological notion, or something else. Where appropriate, one should distinguish between Mereological Reductionism and Conceptual Reductionism (the notion explicated in the text).

⁷ Given a certain kind of mereological essentialism, it follows that mereological reducibility of the sort described in the preceding note likewise entails modal supervenience but not vice versa.

⁸ Does this notion have the desired consequence that K is not more fundamental than K' ?

⁹ Cf. my "The Logic of What Might Have Been," *The Philosophical Review*, 98, 1 (January 1989), pp. 3–34.

¹⁰ Cf. my *Reference and Essence* (Princeton University Press, 1981), at pp. 242–243.

¹¹ Cf. *Reference and Essence*, at pp. 116–133, on cross-world relations.

¹² See my "The Fact that $x = y$," *Philosophia* (Israel), 17, 4 (December 1987), pp. 517–518. For a variety of controversial, but similarly proved philosophical theses concerning identity, see the appendix to my "Modal Paradox: Parts and Counterparts, Points and Counterpoints," in P. French, T. Uehling, and H. Wettstein, eds., *Midwest Studies in Philosophy XI: Studies in Essentialism* (Minneapolis: University of Minnesota Press, 1986), pp. 75–120, at pp. 110–114. (Cf. especially T6 and T7 listed there.)

¹³ I urged a version of the proof just given in *Reference and Essence*, loc. cit., at pp. 242–246. (See also the preceding note 12 above.) Philosophers who embrace, or otherwise defend, the logical possibility of indeterminate identity have gone to extreme lengths to ward off the counter-proof. Typically, they have responded by accepting that the objects in question differ from each other in the respect cited while rejecting the Leibniz's-Law inference from ' a and b are not exactly alike' to ' a and b are not the same thing', on the ground that the conclusion may lack truth value even when the premise is true. The response, however, requires a fundamentally counter-intuitive departure from classical reasoning. For it should be agreed that, of necessity, any *one* thing has every property it has, without exception. It follows by classical reasoning that if the table constituted by such-and-such molecules configured thus-and-so lacks some property that T has, then they cannot be *one* table. But if they are not one table, then they are two. (They are certainly not one and one-half tables, for example. Cf. my "Wholes, Parts, and Numbers," in J. Tomberlin, ed., *Philosophical Perspectives*, 11, Atascadero, Ca.: Ridgeview, forthcoming 1997.)

[*Homework exercise:* Formalize and derive the preceding argument. What inference rules and/or logical axioms are involved in the derivation? Notice also my use of the plural form '*objects* in question' and of the phrase 'differ from each *other*' in stating the typical response to the original proof. Is this usage consistent with the position stated thereby? If not, is there a coherent way to state the position, in its full generality?]

Derek Parfit in *Reasons and Persons* (Oxford University Press, 1986), at pp. 240–241, endorses the standard reply, and says furthermore that even if the proof that there is always a fact of the matter is correct, it only shows that in those cases in which there is no fact of the matter, it is incumbent upon us, if we wish to avoid incoherence, to create a fact by making a decision about the case at hand. This betrays a serious misunderstanding of the proof – and indeed, I believe, a fundamental confusion concerning such things as facts, decisions, and incoherence. The proof demonstrates that there is *already* a fact of the matter, quite independently of any decisions one may wish to make. In addition, a slight variation of the argument shows that it is quite impossible to make a pair of things identical (or distinct) by decision.

¹⁴ “How *Not* to Derive Essentialism from the Theory of Reference,” *Journal of Philosophy*, 76, 12 (December 1979), pp. 703–725, at 723–724n; *Reference and Essence*, *loc. cit.*, section 28 (especially pp. 238–240); “Impossible Worlds,” *Analysis*, 44, 3 (June 1984), pp. 114–117; “Modal Paradox: Parts and Counterparts, Points and Counterpoints,” *loc. cit.*; “The Logic of What Might Have Been,” *loc. cit.*; “This Side of Paradox,” *Philosophical Topics*, 21, 2 (Spring 1993), pp. 187–197.

¹⁵ It is possible that Kripke endorses a Mereological Reductionism of the sort described in note 6 above, and that his problem of trans-world identification presupposes this kind of Reductionism rather than Conceptual Reductionism (in the weaker sense). Although Kripke advocates Haecceitism in its moderate form, discussions I have had with him (subsequent to the appearance of *Naming and Necessity*) make me doubtful whether he is prepared to hold, as I do, that haecceities are separate from, or facts over and above, such facts about individuals as their molecular composition (though he may be). Cf. *ibid.*, at p. 51n; and my “The Logic of What Might Have Been,” *loc. cit.*, at p. 20n.

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