

# Counterpart Theory Vindicated: A Reply to Merricks

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## ABSTRACT

*The paper shows – contra what has been argued by Trenton Merricks – that counterpart theory, when conjoined with composition as identity, does not entail mereological essentialism. What Merrick's argument overlooks is that contingent identity is but one of the effects of grounding identity across possible worlds on similarity.*

Consider the four following theses:

*Composition as Identity:* A composite object  $O$  is composed by its parts  $P_1, \dots, P_n$  only if  $O$  is identical to them.<sup>1</sup>

*Mereological Essentialism:*  $P_1, \dots, P_n$  are parts of the composite object  $O$  at world<sup>2</sup>  $W_1$  only if  $P_1, \dots, P_n$  are parts of  $O$  at every world  $w$  at which  $O, P_1, \dots, P_n$  exist.<sup>3</sup>

*Transworld Identity:* For every world  $W_1$  and  $W_2$  and individual  $a$ :  $a$  exists at  $W_1$  and  $W_2$  if and only if the individual ' $a$ ' picks out at  $W_1$  is identical to the individual ' $a$ ' picks out at  $W_2$ .<sup>4</sup>

*Counterparthood:* For every world  $W_1$  and  $W_2$  and individual  $a$ : if  $a$  exists at  $W_1$  (and if  $W_1$  is distinct from  $W_2$ ) then  $a$  does not exist at  $W_2$ ; however,  $a$  might vicariously exist at

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<sup>1</sup> For a more thorough discussion of composition as identity, see (Lewis 1991, 81-87). Some may prefer to refine the doctrine that composition is identity by taking into account temporal predication ("Any composite object  $O$  is *at time*  $t$  composed by its parts  $P_1, \dots, P_n$  if and only if it is *at*  $t$  identical to them") or the significance of the parts involved ("Any composite object  $O$  is composed by *some of* its parts  $P_1, \dots, P_n$  if and only if it is identical to them") or both ("Any composite object  $O$  is *at time*  $t$  composed by *some of* its parts  $P_1, \dots, P_n$  if and only if it is *at*  $t$  identical to them.") However, since the less refined version suffices for the present needs, I will stick to that.

<sup>2</sup> The use of the term 'world' is here supposed to be, metaphysically speaking, neutral. As in the present definition of mereological essentialism, in the following modal claims will for the most part be expressed by explicit reference to worlds instead than by genuine modal expressions (e.g. 'possibly' and 'necessarily'.) Since counterpart theory also makes use of possible worlds in order to express modal claims, I hope this choice will render the point at issue more straightforward.

<sup>3</sup> This is a strong version of mereological essentialism, as it does not tolerate any mereological change of  $O$  across worlds. For a discussion of the different versions of mereological essentialism, see (Simons 1987, 272-283). Also, the present is a cross-world version of mereological essentialism. The cross-temporal one ("An object  $O$  has  $P_1, \dots, P_n$  as parts at time  $t$  only if  $P_1, \dots, P_n$  are parts of  $O$  at every time at which  $O, P_1, \dots, P_n$  exist") and the stronger version which combines the two of them will not be directly considered in the following. Naturally, the criticism and the counter-argument here presented with respect to the cross-world version could be pursued with respect to the other two versions of mereological essentialism as well.

$W_2$  in virtue of the individual(s) existing at  $W_2$  that *most resemble(s)* it. Call relations of most resemblance among individuals existing at different worlds counterpart relations.<sup>5</sup>

As it turns out, the first three thesis stand in the following relation:

*Fact*: Composition as identity, when conjoined with transworld identity, entails mereological essentialism.<sup>6</sup>

To prove *Fact*, suppose that composition as identity and transworld identity hold and that there is a world  $W_I$  inhabited by a composite object  $O$  whose parts are  $P_1, \dots, P_n$ . Since  $O$  is composed by its parts  $P_1, \dots, P_n$  at  $W_I$  then (by composition as identity) it is identical to them at  $W_I$ , that is:

$$(i) \quad (O)^{W_I} = (P_1, \dots, P_n)^{W_I},$$

where ' $(O)^{W_I}$ ' stands for the individual  $O$  at world  $W_I$  and ' $(P_1, \dots, P_n)^{W_I}$ ' stands for the parts  $P_1, \dots, P_n$  at world  $W_I$ . Now, consider all the worlds at which  $O$  and all of  $P_1, \dots, P_n$  exist. In each of those worlds,  $O$  and  $P_1, \dots, P_n$  are (in virtue of transworld identity) identical with, respectively, each of  $O$  and  $P_1, \dots, P_n$  at  $W_I$ , that is:

$$(ii) \quad \text{For every world } w \text{ at which } O, P_1, \dots, P_n \text{ exist, } (O)^{W_I} = (O)^w, (P_1)^{W_I} = (P_1)^w, \dots, \\ (P_n)^{W_I} = (P_n)^w.$$

Finally, from (i), (ii), and the principle of the indiscernibility of identicals ("For every property  $P$  and individuals  $a$  and  $b$ : if  $a=b$ , then  $a$  has  $P$  if and only if  $b$  has  $P$ ") it follows that  $P_1, \dots, P_n$  are parts of  $O$  at  $w$ , for every  $w$  at which  $O, P_1, \dots, P_n$  exist.<sup>7</sup> Hence,  $O$  has  $P_1, \dots, P_n$  as

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<sup>4</sup> For a classical presentation of transworld identity, see (Plantinga 1974) and (Kaplan 1979).

<sup>5</sup> For a classical presentation of counterpart theory see (Lewis 1968) and (Lewis 1983).

<sup>6</sup> Cfr. (Wiggins 1979). *Fact* is usually stated by substituting transworld identity with either the necessity of identity or the necessity of self-identity *plus* the principle of indiscernibility of identicals – see (Lewis 1991) and (Merricks 1999). I prefer the present formulation because transworld identity – unlike the necessity of identity or the necessity of self-identity *plus* the principle of indiscernibility of identicals – is the alternative criterion to counterparthood for identity across worlds.

<sup>7</sup> If it would not be so – if  $P_1, \dots, P_n$  were not parts of  $O$  at  $w$  – then the individual denoted by ' $O$ ' inhabiting  $w$  would be discernible, though identical (by (ii)), from the individual denoted by ' $O$ ' inhabiting  $W_I$ , since  $O$

parts at  $W_1$  only if  $P_1, \dots, P_n$  are parts of  $O$  at every world  $w$  at which  $O, P_1, \dots, P_n$  exist.

Some believe that identity across worlds is better captured by counterparthood than by transworld identity. The former, in fact, allows for broader theoretical flexibility than the latter. Such flexibility, however, has been challenged by Trenton Merricks who argued that a cognate version of *Fact* holds with respect to counterparthood,<sup>8</sup> or more precisely:

*Ct-Fact*: Composition as identity, when conjoined with counterparthood, entails mereological essentialism.

In the remaining, I will first present Merrick's argument and I will then discuss a complication related to spelling out the mereological essentialist principle within counterpart theory. Finally, I will show that Merricks's argument is invalid.

### 1. *Bad News?*

In the first part of his paper, after acknowledging *Fact*, Merricks explores whether to replace transworld identity with contingent identity ("Possibly, for some individual  $a$  and  $b$  and worlds  $W_1$  and  $W_2$ ,  $a$  is identical to  $b$  at  $W_1$  but  $a$  is different from  $b$  at  $W_2$ ") might be sufficient to undermine it. He does so by bringing into the picture counterpart theory, the only candidate theory of identity across worlds to countenance contingent identity. Merricks's convincing first conclusion is that contingent identity is not enough to undermine the revised formulation of *Fact* (193-194). For the friend of counterpart theory, troubles come with the second part of Merricks's paper (194-195). In fact, Merricks seems to think that "counterpart theory as such" is characterized merely by contingent identity, and hence that the mentioned revised formulation of *Fact* is indeed *Ct-Fact*. The only way to undermine *Ct-Fact* – continues Merricks – is to endorse "a species of counterpart theory" grounded on relative identity, that is a theory according to which "objects do not have counterparts *simpliciter*, but rather only *qua* certain features of those objects"(194). Having shown that the mentioned species of counterpart theory do indeed undermine *Ct-Fact*, Merricks concludes that unless identity is both contingent *and* relative, composition as identity entails mereological essentialism. Yet, since relative identity is undesirable to most of us, and so is mereological essentialism, composition as identity should be rejected by friends of counterpart theory.

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would be composed by different parts at different worlds. Along the same line, for any  $P_i$  among  $P_1, \dots, P_n$ , the individual denoted by ' $P_i$ ' inhabiting  $w$  would be discernible, though identical (by (ii)), from the individual denoted by ' $P_i$ ' inhabiting  $W_1$ , since  $P_i$  would be part of  $O$  at  $W_1$  but not at  $w$ . This is why the indiscernibility of identicals is a necessary premise for the proof to go through.

## 2. Translation

Before moving any further in the analysis of Merricks's argument, it is time to take into account a complication. Within counterpart theory, individuals inhabiting different worlds are matched on the basis of their degree of resemblance, as we have seen above. In view of this, the initial version of mereological essentialism need be revised in that it presupposes transworld identity. In fact, even though the need of a revision has been thus far overlooked,<sup>9</sup> one cannot evidently be said to have grasped (hence knowingly accepted or rejected) *Ct-Fact* without it.

Counterpart relations are similarity relations. Differently than the purported identity relations of transworld identity, counterpart relations are non-symmetric, non-transitive, vague and, according to some, context-relative.<sup>10</sup> These features complicate the articulation of mereological essentialism within counterpart theory, as they open the possibility that each of  $O, P_1, \dots, P_n$  has more than one counterpart at a world. As a result, for each world  $w$  at which each of  $O, P_1, \dots, P_n$  has some counterpart, four types of scenarios are open to consideration:<sup>11</sup>

- S1.* At  $w$ , each of  $O, P_1, \dots, P_n$  has only one counterpart.
- S2.* At  $w$ ,  $O$  has just one counterpart yet at least one among  $P_1, \dots, P_n$  has more than one counterpart.
- S3.* At  $w$ ,  $O$  has more than one counterpart and each of  $P_1, \dots, P_n$  has just one counterpart.
- S4.* At  $w$ ,  $O$  has more than one counterpart and at least one among  $P_1, \dots, P_n$  has more than one counterpart.

I take it to be fairly clear that in *S1* and *S2* the mereological essentialist-*cum*-counterpart theorist's *desiderata* will be the following:

- (1): For every  $O, P_1, \dots, P_n$ :  $P_1, \dots, P_n$  compose  $O$  at world  $W_I$  only if *all* and *only* the

<sup>8</sup> (Merricks 1999). Unless otherwise noted, in the remaining of the text quotations will be drawn from this work.

<sup>9</sup> Merricks himself does not seem to be concerned with this difficulty when he regards as surprising and unintuitive that "given counterpart theory, an object's having *all* of its parts essentially turns out to be *consistent with* an object's possibly having fewer parts than it actually has" (194, fn7). Some consideration on the counterpart-version of mereological essentialism can be found also in (Casati and Varzi 1999, ch. 6).

<sup>10</sup> Cfr. (Lewis 1968). Context-relativity is what characterizes the 'species' of counterpart theory addressed by Merricks.

<sup>11</sup> In the event  $x$  has more than one counterpart at  $w$ , the fact that it has two instead of three or – say – seventeen will not affect the content and number of requirements that a mereological essentialist-*cum*-counterpart theorist might have (at least not of the requirements I propose here.) For this reason I consider only two

counterparts of  $P_1, \dots, P_n$  compose the counterpart of  $O$ .

However, what of  $S3$  and  $S4$ ? Matters are not that clear in those cases. If  $O$  has, say, two counterparts  $O'$  and  $O''$  at  $w$ , it is not possible that all and only the counterparts of  $P_1, \dots, P_n$  compose both  $O'$  and  $O''$ .<sup>12</sup> A more relaxed requirement must hence be proposed. The most reasonable thing to do is to retain as much as we can from (1) and set the strictest possible requirement otherwise, that is:

- (2): For every  $O, P_1, \dots, P_n$ :  $P_1, \dots, P_n$  compose  $O$  only if (i) every counterpart of  $O$  is composed only by counterparts of  $P_1, \dots, P_n$ ; (ii) for every world  $w$  and every counterpart  $C_{O1}$  of  $O$  at  $w$ :  $C_{O1}$  is *not* composed by *some* counterpart  $P_i$  of one among  $P_1, \dots, P_n$  in  $w$  *just in case*  $P_i$  belongs to some counterpart  $C_{O2}$  of  $O$  at  $w$  different from  $C_{O1}$ ,

where (i) retains the one direction (the ‘all’) of (1) and (ii) relaxes the other (the ‘only’). Finally, putting together (1) and (2), a counterpart-theoretic formulation of mereological essentialism is at place:

- (3): For every  $O, P_1, \dots, P_n$ :  $P_1, \dots, P_n$  are parts of  $O$  only if, for every  $w$  at which  $S1$  or  $S2$  obtain, (1) holds; and for every  $w$  at which  $S3$  or  $S4$  obtains, (2) holds.

Now, it is surely a drawback for counterpart theory that (3) is not as straightforward as its cognate grounded on identity.<sup>13</sup> But this is not enough to render (3) a counter-intuitive surprise deemed to undermine counterpart theory, as Merricks wants. Intuitions regarding the nature of possibility are up for grabs. If it is counterpart theory to be at stake, conclusive objections should be formulated within the theory’s vocabulary.

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possible situations.

<sup>12</sup> In fact, there is one way to maintain it. Give up uniqueness of composition by giving up the transitivity of identity (composition as identity *plus* the transitivity of identity entail uniqueness of composition). The exploration of this alternative, however, would bring us too far away from the purposes of the present discussion, and hence I shall leave it aside.

<sup>13</sup> On this ground it might be objected, for example, that (3) presents the same difficulties of the so-called ‘best candidate’ theory, even when considering the differences between identity through time (possibly involving causal processes) and identity through possible worlds. Cfr. (Wiggins 1980), (Nozick 1982), and for a discussion of Nozick’s and Wiggins’s positions (Noonan 1985) and (Garrett 1988).

### 3. *No News*

Mary is happy today. Over her one-hour break she managed to have one of her beloved ice creams. She knows she has been lucky: her mother let her go just because it was not raining, but there is a world  $W_I$  where a girl, whose life has been exactly like Mary's up to today, could not get the ice cream because it rained. That girl – call it O – is Mary's counterpart. The two differing only with respect to eating an ice cream today, all things considered O is the individual that most resembles Mary in  $W_I$ , both physically and mentally.

Mary's and O's bodies provide a counterexample to *Ct-Fact* which does not presuppose a relativised version of counterpart theory. In fact, nothing seems to preclude us from imagining that the two bodies are identical with their respective parts. Besides, O's body is the counterpart (in a non-relativised sense) of Mary's body at  $W_I$ , as it is the individual that, all things considered, most resembles Mary's body in its world.<sup>14</sup> Yet it is not the case that every counterpart of the parts of Mary's body composes O's body – the counterpart of the ice cream Mary ate today, call it  $P_n$ , does not compose O's body, because it is still in the ice cream shop. In other words, even though composition as identity and counterparthood are in place, (3) fails to hold because (1) fails to hold.

It is crucial to note that Mary's example does not require a relativised version of counterpart theory, as the similarity involved is *overall* similarity. Also, in the example each of O,  $P_1, \dots, P_n$  has one counterpart in  $W_I$ , hence contingent identity is not presupposed either. Other counterexamples to *Fact* in which each of O,  $P_1, \dots, P_n$  has more than one counterpart might be construed as well, and I leave to the reader to invent some. The general lesson to be drawn from Mary's example is that contingent identity (the feature Merricks ascribes to counterpart theory) is but one of the results of grounding identity across possible worlds on similarity. Similarity – overall, not contextual similarity – brings about more than contingently identical individuals. As for example we have learnt, it brings about that two

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<sup>14</sup> With respect to this, one might object that the example actually assumes the relativity of identity. In fact – the objection goes – when considered *qua* body, the counterpart of Mary's physical component is certainly O's body; but *qua* mereological sum, Mary's physical component has a different counterpart: O's body *plus* the ice cream which at  $W_I$  is in the shop – call this sum S. Therefore the example presupposes the 'species' of counterpart theory deemed unpalatable by Merricks. I believe, however, that this interpretation is incorrect. In fact, in order to contend that relative identity is presupposed one has also to contend that contingent identity is involved (in the scenario depicted O's body and S are distinct at  $W_I$  but contingently identical in Mary's world). But this is an unwarranted assumption. Even putting on a side all (non relative or non-sortal) differences that could be observed between O's body and S and that make the first more similar to Mary's physical component than the latter – even leaving that on a side: Why should S be regarded as an object (and hence as a counterpart-candidate) at all? The friend of composition as identity and counterpart theory might very well adverse universalism, in particular it might reject that scattered sums like S are indeed objects, thereby denying that 'S' picks out a counterpart-candidate.

objects  $O$  and  $O'$  inhabiting two different worlds  $W_1$  and  $W_2$  might have different parts, be respectively identical to such parts, and at the same time be one the counterpart of the other.<sup>15</sup>

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