

On Restricting Rigidity

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In this note I revive a lingering (albeit dormant) account of rigid designation from the pages of *Mind* with the aim of laying it to rest. Why let a sleeping dog lie when you can put it down?

André Gallois (1986) has proposed an account of rigid designators that allegedly squares with Saul Kripke's (1980) characterisation of them as terms which designate the same object in all possible worlds, but on which, *contra* Kripke, identity sentences involving rigid designators may be merely *contingently* true. This suits Gallois, as he finds the notion of *contingent identity* coherent. Thus, the thrust of Gallois' thesis is that his account of rigidity is preferable to Kripke's because his accommodates a coherent metaphysical viewpoint, whereas Kripke's doesn't.

Gallois has thwarted one unconvincing challenge (see Carter 1987; Gallois 1988) and his account, as yet, remains untainted. But not for long, I hope.¹ Let us assume, for the sake of argument, that the notion of contingent identity is coherent, that, in other words, it makes—or can make—sense to say that certain (possible) objects are identical in one world but distinct in another. What I shall argue here is that Gallois' account of rigidity would prevent us from expressing the contingent non-identity of objects; if so, this is a significant failing of the account, for, as it will emerge, clearly Gallois is committed to the contingency of non-identity.

¹ Gallois (1990) has gone on to propose a “companion” analysis of identity sentences involving temporal operators that accommodates what he calls the *occasional* identity of objects—the view that some objects may be identical at one time but distinct at another. But there are pivotal points of disanalogy between Gallois' accounts of contingent identity and occasional identity; so my comments here should be regarded as applying solely to his position on the contingency of identity.

Here's a brief outline of Gallois' position. He revives a familiar scenario involving the identity of ships. We are asked to consider a world W in which a ship designated "Mary" undergoes gradual plank replacement so that what eventually emerges is a ship made from a collection of planks, C_1 , that has no members in common with the original collection of planks, C , that made up Mary. The resulting ship is christened "Alice" in W . We are then asked to consider a possible world W_1 , which contains two ships: $Mary_1$ made up of planks from C (arranged in the same way as when they constituted Mary in W) and $Alice_1$ made up of planks from C_1 (arranged in the same way as when they constituted Alice in W). Now, Gallois says:

There is a consideration in favour of identifying Mary with $Mary_1$. After all, Mary and $Mary_1$ are constituted from exactly the same planks organized in exactly the same way. The same consideration tells in favour of identifying Alice with $Alice_1$. If we make these identifications then "Alice" and "Mary" designate the same ship in W but distinct ships in W_1 . That is, "Mary is identical with Alice" is contingently true... (1986, p. 58)

His contention is that the following view:

Mary is contingently identical with Alice, and in the contingently true identity sentence "Mary is identical with Alice", "Mary" and "Alice" function as rigid designators (1986, p. 60)

can be coherently maintained on an extensionally adequate account of rigidity— an "extensionally adequate" account being one such that all and only those terms we presently regard as rigid come out rigid. To this end he introduces the following analysis of rigidity, or "rigid designation condition" (1986, p. 60):

RDC: $(\forall d)(\forall x)(\forall W)(d \text{ rigidly designates } x \text{ in } W \leftrightarrow (\forall y)(\forall W')(d \text{ designates } y \text{ in } W' \rightarrow \text{in } W: x=y)).^2$

Informally, a term rigidly designates an object, x , in a world, W , if and only if whatever object it designates in any world is identical with x in W . Any term that is rigid according to RDC is *restrictedly* rigid.

Given RDC, rigid designators of the same object need not be coreferring in every world. We can therefore hold that “Mary” and “Alice” rigidly designate Mary (= Alice) in W , but that “Mary” designates $Mary_1$ while “Alice” designates $Alice_1$ in W_1 . Gallois claims that, given RDC, and granting that identity is an equivalence relation *within* worlds,³ we can hold (1)–(5) (see pp. 62-3):

- (1) In W : Mary = Alice
- (2) In W : $Mary_1$ = Mary
- (3) In W : Alice = $Alice_1$
- (4) In W : $Mary_1$ = Alice
- (5) In W : $Mary_1$ = $Alice_1$

without having to deny (6):

- (6) In W_1 : $Mary_1 \neq Alice_1$

² Where I write “ d designates y in W ” Gallois would write “ d (as used in W) designates y in W ”. I have omitted this qualification since it is an obvious one.

³ Not all advocates of the contingency of identity would embrace Gallois’ assumption that *identity* is an equivalence relation within worlds. On the account of contingent identity accommodated by Graeme Forbes’ (1982) canonical counterpart theory, for example, one may be justified in denying the transitivity, and even the reflexivity, of identity within worlds, as both “ $\diamond(x=y \ \& \ x=z \ \& \ y \neq z)$ ” and “ $\diamond(x \neq x)$ ” are satisfiable. See Ramachandran (1990) for a counterpart-theoretic account that complies with Gallois’ assumption.

Let us grant Gallois this claim and move directly to my objection against his position: that RDC prevents us from expressing the contingent *non*-identity of objects. Suppose there are two objects in the actual world, Mark and Amanda, which we consider to be only contingently non-identical. The problem is this: how can we express their contingent non-identity, given RDC? If the name “Mark”, say, restrictedly rigidly designates Mark in the actual world, then whatever it designates in any other world is identical with Mark in the actual world. Because of this, “Mark” and “Amanda” cannot codesignate an object in any world, since that object would have to be identical with *both* Mark and Amanda in the actual world—a possibility ruled out by the equivalence of identity in the actual world. What we get, then, is that “Mark is identical with Amanda” is false in *every* world, i.e. *necessarily* false. Consequently, given RDC, we cannot express any contingent non-identities. At any rate, the truth of “ α is contingently non-identical with β ” will not correspond with the contingent truth of “ α is non-identical with β ” (where “ α ” and “ β ” are rigid designators); this marks a significant point of disanalogy with contingent *identity*, and therefore requires some vindication from Gallois. The issue cannot be shirked, for Gallois’ own example commits him to the contingency of non-identity: since he maintains that $Mary_1$ and $Alice_1$ are non-identical in W_1 but identical in W , he is surely compelled to maintain that $Mary_1$ and $Alice_1$ are only contingently non-identical in W_1 . I submit then that the inexpressibility of contingent non-identity is a substantial but intractable problem for Gallois’ account.

Finally, a warning about a different brand of “restricted” rigidity, one which circumvents our problem about the expression of contingent non-identities. Consider

$$\text{RDC*}: (\forall d)(\forall x)(\forall W)(d \text{ rigidly designates } x \text{ in } W \leftrightarrow (\forall W')(\forall y)(d \text{ designates } y \text{ in } W' \rightarrow \text{in } W': x=y)).$$

Informally, by RDC*, a term rigidly designates an object, x , in a world, W , iff

whatever object it designates in any world, W' , is identical with x in W' . Now, whereas RDC precludes rigid designators of different objects—e.g. “Mark” and “Amanda”—from codesignating an object in some world, RDC* precludes rigid designators of the same object—e.g. “Mary” and “Alice”—from designating different objects in some world. Thus, RDC* does not block the expressing of contingent non-identities, and, for example, we are not prevented from maintaining that “Mark is non-identical with Amanda” is only contingently true. Instead, however, we are now prevented from expressing the contingent *identity* of objects—in particular, the contingent identity of Mary and Alice—since, as was just noted, RDC* dictates that terms which rigidly designate the same object cannot but corefer in every world. So, for Gallois’ purposes, RDC* is little better than RDC.⁴

My target in this note has been Gallois’ method of accommodating the contingency of identity rather than the notion of contingent identity itself. So far as I can see, and as I have argued, restricting rigidity in the manner he suggests is not adequate for his needs.⁵

⁴ For the record, I think RDC* does accommodate a rival account of contingent identity. This is a subject for another paper, but let me indicate roughly what I have in mind. To be sure, RDC* prevents us from expressing what may be called the contingent *self*-identity of objects—e.g. the contingent identity of Mary and Alice (= Mary); nevertheless, it forces another brand of contingent identity on us by virtue of rendering the contingency of non-identity coherent: for, objects which are contingently non-identical must perforce be contingently *identical* with respect to another world. See Ramachandran (1990) for a comparison of the competing accounts of contingent identity within the framework of counterpart theory.

⁵ This note is a descendent of a longer paper read at the Joint Session of the Aristotelian Society and the Mind Association at the University of Swansea in 1989. I thank Martin Davies, Graeme Forbes, Jonardon Ganeri and David Lewis for their comments on various drafts of that paper.

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