

Gallois, A., *Occasions of Identity: The Metaphysics of Persistence, Change, and Sameness* (Oxford: Clarendon Press, 1998), pp. xiii, 296, £35.00 (cloth).

This is a detailed defense of the view that identity is not an eternal, necessary relation: things can be identical at one time and distinct at another; they can be identical in one world and distinct in another. The defense is judicial rather than passionate, as Gallois's primary goal is to persuade the reader that the view is 'at least as credible' as its more fashionable alternatives. But Gallois also aims to show that if the view is credible then it provides a better solution to a wide range of identity puzzles (the ship of Theseus, the problem of material constitution, the puzzle of amoebic fission, and the like). As it turns out, Gallois goes a long way towards establishing the truth of this conditional claim. The real issue, however, is the credibility of the view itself, and in spite of the many sophisticated and original arguments that fill the pages of the book I suspect that many readers will not change their skeptical minds.

The book is organized in three parts. The first part (Chapters 1 and 2) sets out the puzzles and reviews the main rival accounts. The second part (Chapters 3–7) delivers the defense of the main view. More precisely, Chapters 3 to 5 defend the Occasional Identity Thesis proper:

$$(OIT) \quad (\forall x)(\forall y)(\forall t)(\forall t')(at\ t: x = y \ \& \ at\ t': x \neq y)$$

while Chapter 6 defends the modal companion of (OIT), the Contingent Identity Thesis:

$$(CIT) \quad (\forall x)(\forall y)(x = y \ \& \ \Box x = y).$$

Chapter 7 then compares these defenses with earlier attempts by authors such as John Perry and George Myro. Finally, the third part of the book (Chapters 8 to 10) is devoted to an evaluation of the proposed view against the background of three main competitors: the view that the puzzles stem from a confusion between a strict and a loose conception of identity; the view that they stem from the indefiniteness (or vagueness) of identity; and the view that they stem from the failure to recognize that things persist by having temporal parts. Each chapter of the book is packed with arguments and bears the mark of thought, even when Gallois is not working directly towards his main goal. For this reason, the book is very much worth reading even by philosophers with strong

prejudices against the occasional or contingent identity views. For instance, the first part contains one of the most articulated formulations of the puzzles on the market, carefully distinguishing between semantic and truly metaphysical issues. However, there is no question that the major contribution of the book lies in its direct defense of (OIT) and (CIT), so in the following I will concentrate on that part.

Let's begin with (OIT). Gallois argues that some common objections to this thesis are easily dismissed. Consider, for instance, the transitivity objection. Let Amoeba be an amoeba which undergoes fission at some time between t_1 and t_2 . At t_2 one member of the resulting pair of amoebas—call it Pond—is living out its life in a pond, and the other member—call it Slide—is being viewed on a slide under a microscope. One would expect the occasionalist to accept the following four claims:

- (1) Pond at t_1 = Pond at t_2
- (2) Slide at t_1 = Slide at t_2
- (3) Pond at t_1 = Slide at t_1
- (4) Pond at t_2 = Slide at t_2

(where 'Pond at t_1 ' is short for 'the thing which is Pond at t_1 ', and similarly for the other terms). In fact this is how (OIT) is often depicted. And since the truth of (1)–(4) is incompatible with the fact that identity is transitive, the occasionalist would seem to have a problem.

This objection is dismissed for the following reason (pp. 75ff). When told that an identity holds, an occasionalist will always ask *at what time* it holds, so the only principle of transitivity that can be assumed without begging the question against (OIT) is one that keeps the time fixed:

$$(PT_t) \quad (\forall x)(\forall y)(\forall t)(\text{at } t: x = y \ \& \ \text{at } t: y = z \quad \text{at } t: x = z).$$

In the case at issue there are two main options for applying (PT_t). If we focus on t_1 , the occasionalist is committed to the truth of (1)–(3) but has no reason to say that (4) holds as well. What the occasionalist is willing to say is that (4) holds at t_2 , i.e.,

$$(4') \quad \text{At } t_2: \text{Pond} = \text{Slide},$$

and this need not entail that (4) holds at t_1 also. On the other hand, if we focus on t_2 , then the occasionalist is not committed to any of (1)–(3). For example, the occasionalist is willing to say that the identity in (3) holds at t_1 , i.e.,

(3') At t_1 : Pond = Slide,

but this need not entail that the identity also holds at t_2 . Thus, regardless of whether we focus on the earlier or the later time, the occasionalist is not committed to jointly accepting (1)–(4) and this suffices to block the objection.

I think this line of defense is all right, but its credibility depends on an important detail that Gallois leaves in the dark. How is a statement of the form

(5) At t : $a = b$

to be understood? There are various options on the market, but the one favored by Gallois seems to be the following: (5) is true if and only if the relation of instantiation holds between (the ordered pair of) the objects designated by ' a ' and ' b ', the identity relation, and t . (I say 'seems to be' because nowhere does Gallois make this explicit, though he does explain statements of the form 'at t : x ' along these lines.) Now, *what* are the objects designated by ' a ' and ' b '? If these designators are temporally rigid the question has a straightforward answer. However, the occasionalist can hardly treat every name as temporally rigid, for otherwise it would be impossible to designate objects satisfying (OIT). For example, if both 'Pond' and 'Slide' were rigid then (3') and (4') would be incompatible, contrary to what the occasionalist wants to say. On the other hand, if either 'Pond' or 'Slide' were non-rigid, then it would seem that one would not need to resort to (OIT) to accept to (3') and (4'). Compare:

(6) In 1989: George Bush = the US President.

(7) In 1999: George Bush the US President.

For this reason, Gallois introduces a third kind of designator, which he calls *temporally quasi-rigid*. A quasi-rigid designator is one that can denote an object x at a time t and an object y at a time t' only if x is at some time identical with y (p. 73). Clearly 'the US president' is not quasi-rigid in this sense, since it designates George Bush in 1989 and Bill Clinton in 1999, and Bush is at no time identical with Clinton. On the other hand, 'Pond' and 'Slide' may well be temporally quasi-rigid, and indeed they must be so if both (3') and (4') are true. Let us, then, suppose that either ' a ' or ' b ' in (5) is quasi-rigid. The truth value of (5) depends on whether the relation of instantiation holds between the objects denoted by ' a ' and ' b ', the identity relation, and t . Yet this depends, in turn, on whether we take those objects to be the ones denoted by ' a ' and ' b ' at t or at some other time. If every identity statement were synchronic, as in (3')

and (4'), we could easily settle on the first option. However, Gallois is willing to make sense of diachronic identity statements such as

- (1') At t_1 : Pond at t_1 = Pond at t_2 ,
- (2') At t_1 : Slide at t_1 = Slide at t_2 ,

hence that option is not viable. The second best option would be to take the relevant objects to be those denoted by the relevant names at the time of utterance. But this won't do either, for otherwise we could attribute a truth value to (1')–(4') only on the assumption that Pond and Slide exist at the time of utterance. Compare your intuitions with the truth conditions of a statement such as

- (8) At t : George Washington = Abraham Lincoln.

If neither option is viable, however, then something must be said to explain how a statement of the form (5) is to be understood. Without such an explanation one basic intuition behind an occasional identity statement remains obscure. And it is hard to see why Gallois takes it as obvious, for instance, that the occasionalist should agree with (1') and (2') but not with

- (1'') At t_2 : Pond at t_1 = Pond at t_2 .
- (2'') At t_2 : Slide at t_1 = Slide at t_2 .

Be that as it may, the rebuttal of the transitivity objection is only the beginning of Gallois's defense of (OIT). The book addresses many other objections, the most important of which—as it might be expected—are those that exploit (the time-indexed form of) Leibniz's Law:

- (LL_t) (x)(y)(t)(at t : $x = y$ (at t : x at t : y)).

Here is how one such objection goes. The occasionalist endorses (3') and (4'). Given (4'), we may assume that one property that Pond and Slide do not share at t_2 is the property of being in a pond:

- (9) At t_2 : Pond is in a pond.
- (10) \sim (At t_2 : Slide is in a pond).

From this it seems reasonable to infer that at t_1 Pond, but not Slide, has the property of being in a pond at t_2 :

- (11) At t_1 : at t_2 : Pond is in a pond.
- (12) \sim (At t_1 : at t_2 : Slide is in a pond).

In view of (LL_t), this implies

(13) At t_1 : Pond = Slide.

And this contradicts (3').

One cannot just rebut the objection by blocking the move from (11)–(12) to (13), for the occasionalist finds (LL_t) unobjectionable. Even so, Gallois argues that the objection can be blocked in two ways. The first relies on the following principle, which is intuitively plausible:

(E) $(\forall x)(\forall t)(\forall t')(at t: at t': x = y \leftrightarrow (\forall y)(at t: x = y \& at t': y))$.

Something has, at a given time t , the time-indexed property of being y at a time t' if and only if it is identical, at t , with something that has the property of being y at t' . Given (E), the occasionalist has reason to block the inference from (10) to (12). This is because the following are clearly true:

(14) $(\forall y)(at t_1: Slide = y \& at t_2: y \text{ is in a pond})$.

(15) $\sim(\forall y)(at t_2: Slide = y \& at t_2: y \text{ is in a pond})$.

(In (14), just take y to be Pond.) Hence, by (E), (14) implies the falsity of (12), while (15) implies the truth of (10) as long as identity is reflexive:

(16) At t_2 : Slide = Slide.

The second way out is to accept (9) but deny (11). This can be done by relying on the following strengthening to (E), which is also pretty plausible:

(A) $(\forall x)(\forall t)(\forall t')(at t: at t': x = y \leftrightarrow (\forall y)(at t: x = y \& at t': y))$.

For then we can just observe that the occasionalist cannot accept the following instance of the right-hand side of (A):

(17) $(\forall y)(at t_1: Pond = y \& at t_2: y \text{ is in a pond})$.

Hence the corresponding instance of the left-hand side, which amounts to (11), must be rejected.

In short, then, Gallois's defense of (OIT) against the Leibniz's Law objection is that the objection exploits a reasoning which is invalid as long as the meaning of the locution ' $at t: at t': x$ ' is explained along the lines of either (E) or (A) (and what other options are there?). This is clever and revealing. But notice the price: to accept (9) and deny (11) is tantamount to accepting that something x can lack a time-indexed property of being y at a certain time even

though x does in fact have the property ϕ when that time comes; and to accept (10) and deny (12) is tantamount to accepting that something x can have a time-indexed property of being ϕ at a certain time even though x does not have the property ϕ when that time comes. In short, the occasionalist must reject the ordinary view that time-indexed properties are time invariant. Gallois argues that this is not an *ad hoc* maneuver (pp. 96ff and Chapter 4) and I think we must agree. Yet one can hardly deny that the outcome is puzzling.

Consider also a different version of the Leibniz's Law objection. Surely at any time at which it exists Pond is identical with Pond, and surely Pond has this characteristic at any time, including t_1 . Thus (18) and (19) must both be true:

- (18) $(\forall t)(\text{at } t: \text{Pond} = \text{Pond})$.
 (19) $\text{At } t_1: (\forall t)(\text{at } t: \text{Pond} = \text{Pond})$.

Given (3')—the objection goes—(19) implies (20) by (LL_t), from which it seems plausible to infer (21):

- (20) $\text{At } t_1: (\forall t)(\text{at } t: \text{Pond} = \text{Slide})$
 (21) $(\forall t)(\text{at } t: \text{Pond} = \text{Slide})$.

But then we can infer the following instance of (21):

- (22) $\text{At } t_2: \text{Pond} = \text{Slide}$.

And this contradicts (4').

This line of objection is the temporal counterpart of the famous Kripke-Marcus argument for the necessity of identities. And Gallois's reply should at this point be clear: the move from (20) to (21) is illegitimate because it presupposes that time-indexed properties (here: the property of being always-identical-with-Pond at t_1) are time invariant—a presupposition that reflects our bias against occasional identity. We tend to conflate the thought that there is no time at which Pond exists without being identical with Pond and the thought that there is no time at which the thing which is Pond at t_1 exists without being identical with Pond. The first thought is undeniable but—Gallois argues—dismissing (OIT) on the grounds that it violates the second thought is question begging. Which is another way of saying that the occasionalist cannot be expected to treat 'Pond' as a temporally rigid designator (pp. 134f).

Is (OIT) vindicated then? Let's look again at the price. The objection is blocked by denying (21). But if an occasionalist is willing to concede the move

from (18) to (19), then she will concede the move from (23) (the denial of (21)) to (24):

- (23) $\sim(\exists t)(\text{at } t: \text{Pond} = \text{Slide})$.
 (24) $\text{At } t_1: \sim(\exists t)(\text{at } t: \text{Pond} = \text{Slide})$.

(See Gallois's discussion of the principles labelled (EA) on p. 129 and (EE) on p. 136). This means that one and the same thing, Pond, can at one and the same time, t_1 , have the property of being always identical with Slide (by (20)) as well as the property of being sometimes distinct from Slide (by (24)). This is not incoherent and Gallois emphasizes it: all it takes for (20) to be true is that something, namely Slide, is identical with Pond at t_1 and identical with Slide at all times, and all it takes for (24) to be true is that something, namely Pond, is identical with Slide at t_1 and not identical with Slide at some other time. So (20) and (24) are compatible in spite of the appearances. They are compatible, we may say, just as (9) was compatible with the denial of (11) or (10) with the denial of (12). Being told this, however, I surmise that many would react to this result with suspicion. And some will regard the compatibility of (20) and (24) as a *reductio* rather than a vindication of (OIT). (An occasionalist may of course reject the move to (24), but then she should also reject the move to (19). And Gallois reckons that that would be hard to swallow: see p. 123, fn. 7.)

All of this has a natural counterpart in Gallois's defense of the Contingent Identity Thesis (CIT) against the argument of the necessity of identities. In that case, the idea is that the occasionalist cannot be expected to treat 'Pond' as a modally rigid designator or to assume that modal properties (e.g.: the property of being necessarily-identical-with-Pond) are world invariant. Once the analogy between times and worlds is taken seriously,

$$(CIT') (\exists x)(\exists y)(\exists w)(\exists w')(\text{in } w: x = y \ \& \ \text{in } w': x \neq y),$$

the defense of (CIT) parallels that of (OIT) and there is little to be added. It is, I think, an important feature of Gallois's work that one can come to see the many assumptions that are involved in the Kripke-Marcus modal argument by first working through the details of the argument in the temporal case. To my knowledge no previous attempt to defend contingent identity went that far (and Gallois is right in pointing out the limits of such previous attempts in chapter 7). But having said this, I am left with the impression that far is not far enough, and for reasons paralleling the ones given above I think that Gallois's defense

falls short of being a full vindication of (CIT), and hence of (OIT). One comes close to seeing how these theses can be made coherent, just as one can come close to seeing how paraconsistent logic (say) can have a coherent semantics. But just as paraconsistent logicians rarely succeed in converting people to their good cause except for people with some inborn paraconsistent inclination, I doubt that Gallois's efforts will succeed in converting many philosophers to the view that identity is a temporally and modally flexible relation on a par with, say, the relation of sharing the same height or the same number of hairs.

In the end I would call this a stall. But then, again, a stall is better than a defeat. There is no question that Gallois has done a great job in sorting out the issue and throwing light on 'the dark doctrine' of occasional and contingent identity. Whether we are ready to accept the doctrine is another matter, and Gallois himself has no pretense to say the last word.

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(Published in *The Australasian Journal of Philosophy* 79:2 (2001), 291–295)