Fine's "Neutral Relations"

Preview: In this paper, Fine attacks the Standard View of relation, and considers two views to replace it, "Positionalism" and "Anti-Positionalism". He favors Anti-positionalism, but we will discuss Anti-Positionalism next time.

1 The Problem for the Standard View

The Standard View: We may meaningfully talk of a relation holding of several objects in a given order.

The Problem

Relations have converses. The converse of *loving* is *being loved*, for example. The converse of *on top of* is *beneath*.

Why think this? "Once given an intelligible notion of converse, it is very plausible to suppose that each relation has a converse. For it would be completely arbitrary to suppose hat a given relation might exist and yet not a converse."

2 Setting up the problem.

In order to raise the problem, Fine appeals to the notion of a completion:

"The completion of a relation R by the objects a1, a2, ... is the state of the objects a1, a2,...standing in the relation R. This state is also referred to as a "complex" (5)

How does "exemplification" differ from "completion" (5)

Exemplification: "an extensional notion; it concerns the extension of a relation, what it relates. It is expressed by a predicate "is exemplified by"

Completion: "an intensional notion; it concerns the content of a relation, *how* it relates. It is signified by an operation, "the completion of".

This will become important later.

2.1 Fine's Argument:

Eh, I did it as a reductio.

Assumption: We should accept the standard view of relations (under which relations like loving have (distinct) converses).

- P1. When objects a and b stand in the loving relation L, then there is a completion of the loving relation by a and b. (A completion is something like a state of affairs or fact "out there in reality" consisting of a, b and L.) Call this completion c.
- P2. When objects b and a stand in the converse-loving relation L*, then there is a completion of the converse-loving relation by b and a. Call this completion d.
- P3. Any completion of a relation is identical to a completion of its converse. (Identity)

P4. c = d (from P1-P3)

P5. No complex is the completion of two distinct relations. (Uniqueness)

P6. ¬ c = d (P1,P2, P5)

Conclusion: We should reject the standard view.

Fine doesn't actually think we have to accept the above argument to see the problem with the Standard View:

> "Although I have stated the argument in terms of states or relational complexes of some other kind, it is possible to see the difficulty as arising from a more general view about the worldly role that relations may assume. For we may think of relations as being "out there" in the world and as belonging to reality itself rather than to our representation of reality. But if this is our conception of relations, it becomes hard to see how there could be a multiplicity of relations connecting the very same things in essentially the very same way, and differing only in the order in which hey are connected. We are more inclined to think there is a single underlying relation connecting the things together and that any difference in the order of connection is to be attributed to the way we represent the relation as holding rather than to the relation itself."

2.2 Linguistic Considerations against the Standard View

Perhaps we think we have evidence for the Standard View from how our predicates work. But not all languages work like this. At least, we can imagine languages which don't work like that. Graphic language example (bottom of page 6). Does the amatory predicate of that language appeal to the loves or is loved by relation? This seems like a silly question to ask.

Question: HOW silly?

2.3 "General Requirements on a Solution"

Can the standard theorist give up identity?

Can they give up uniqueness?

2.4 A New Theory of Relations?

A new theory of relations, Fine thinks, must take a new approach to exemplification and completion.

2.4.1 Exemplification:

> "Not every notion of exemplification will serve our purpose in this regard. We may talk, for example, of a relation holding of certain objects when it holds of them in some manner or another–so that loves will hold of Jack and Jill regardless of whether Jack loves Jill or Jill loves Jack. However, such a notion will not fully reveal how the relation is exemplified since it will not distinguish between the exemplification of a relation and of its converse. Thus, what we require is a notion of exemplification that is canonical or fully adequate in the sense that its exemplification should reveal the exemplification, broadly and properly conceived, of each individual relation."

> "The main demand imposed on relations by the requirement of adequacy is that they should have the capacity for differential application. There are in general two ways in which a binary relation might hold between any two objects...."

Note: a nonstandard notion of exemplification may not hold just between objects and the relation, but other "props" as well.

2.4.2 Completion

"An adequate nonstandard notion of completion...cannot be sensitive to the order of the arguments, or at least not in the same way."

It also cannot "be regarded as an operation that takes a given relation and its relata as its arguments and delivers a single complex as its value.

That is because it needs to account for "differential completion": the multiplicity of ways in which a complex may be formed from a given relation and given relata.

3 Positionalism

Each neutral (unbiased, unordered) relation is endowed with a fixed number of argument places or positions, specific entities that are the argument places.

Example: the amatory relation has lover and beloved positions.

While we can impose an order, these relations have no intrinsic order.

Exemplifications on this view should be understood to be relative to an assignment of objects to argument places.

A completion of a relation is a state that results from assigning certain objects to the argument places of the relation.

Exemplification will hold whenever completion holds.

3.1 Which is more basic? Ordered or Non-ordered relations?

We can impose an order on non-ordered neutral relations to get ordered (biased) relations.

> "It seems possible in principle for the explanation to go either way. For suppose we start with unbiased relations. Then...a biased relation an be taken to be the result of imposing an ordering on the argument places of an unbiased relation and exemplification and completion can be understood accordingly."

On the other hand,

> "Suppose, on the other hand, that we start with biased relations. Then we can take each unbiased relation to be, or to be what is common to a "permutation class" of biased relations, and similarly, each argument place of the unbiased relation might be identified with a function that takes each biased relation of the permutation class into a corresponding numerical position."

We should take unbiased relations to explain biased relations. To see this, let's revisit our problematic completions from the first section of the paper.

s: a is on top of b
s: b is below a

How do we explain the existence of a single state s above appealing to biased relations?

Alternative 1: there are actually two states here. and we explained the unbiased state s in terms of what is common to s1 and s2.

No dice: why on such a view are we inclined to say there is the single state s "out there"?

Alternative 2: The relations result via another form of completion in the same state s which can therefore be explained either as the completion of on top of by a and b or as the completion of beneath by b and a.

No dice: "But then surely we need to explain how it is that these two completions result in the same state, and the only plausible explanation is that they are completing of a single underlying unbiased relation.

4 Problems with Positionalism

Objections:

1. It requires us to accept argument places or positions as entities in their own right.
2. It leads to an erroneous account of symmetric relations.

In a footnote, Fine quickly considers and dismisses a response to the second problem. Let's go through this:

> Two ways out have been proposed to me on the positionalist's behalf. The first is to treat a symmetric relation as a property of pluralities. But this proposal gives up on a uniform treatment of relations and is unable to deal with symmetric relations, such as overlap,that themselves hold between pluralities. The other proposal is that the relata in a symmetric relation should be taken to occupy the same position. But consider the relation R that holds of a, b, c, d when a, b, c, d are arranged in a circle (in that very order). Then the following represent the very same state s: (i) Rabcd;(ii) Rbcda;(iii) Rcdar, (iv) Rdabc. Let α, β, γ, δ be positions corresponding to the first, second, third, and fourth argument-places of R (which may be the same). Then by (i), a, b, c, d will occupy the respective positions α, β, γ, δ; by (ii), b, c, d, a will occupy the respective positions α, β, γ, δ and similarly for (iii) and (iv). Therefore, a, b, c, d will each occupy all four positions α, β, γ, δ. By the same token, a, b, c, d will each occupy all four positions α, β, γ, δ in the state represented by Racbd;and so it will be impossible, on this view, to distinguish between the states represented by Rabcd and Racbd.