Back to Rigidity

Another attempt at rigidity for general terms

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In *Beyond Rigidity*, Scott Soames attempts, *inter alia*, to flesh out Kripke's picture of rigid designation as regards general terms. He regards Kripke's own treatment in *Naming and Necessity* as incomplete because, while it defines rigidity for proper names, it neither gives a separate definition applicable to general terms, nor is it immediately clear how to extend the framework for proper names to general terms. He tries and rejects two different strategies. First, rigidity for general terms is treated in an analogous fashion to Kripke's original treatment of rigidity for singular terms. In the second strategy, Soames tries to associate each general term with a singular term, and suggests that the general term is rigid if and only if its associated singular term satisfies the original definition for rigidity. He rejects both strategies, and concludes that giving an account of rigidity for general terms is a hopeless project. I propose a third strategy that combines elements of the first two strategies in a way that avoids the problems of both.

With his first strategy, Soames tries to make a "natural extension" of the rigidity for singular terms to predicates by making a predicate "rigid iff it is an essentialist predicate," where an essentialist predicate is defined in the following manner:

> EP. A predicate P is essentialist iff for all possible worlds w and objects o, if P applies to o with respect to w, then P applies to o in all worlds in which o exists. ([BR], 251)[1]

Soames makes a case on the textual evidence that this account fits Kripke's picture. He argues that most of the natural kind predicates thought by Kripke to be rigid come out rigid on this definition and that textual evidence supports linking rigidity with essentiality ([BR], 252-4). On these grounds, he thinks it reasonable to start with this definition as an attempt to capture Kripke's picture.

This strategy runs into difficulties in trying to arrive at the metaphysical consequences that Kripke expects rigidity to give us, particularly the necessity of identity statements between rigid predicates. Traditionally, identity statements between singular terms have been taken to be of the form

[1] I have tried to use the same numbering conventions as [BR], Ch. 9 throughout, for easy comparison with the original text.

1a. $\alpha = \beta$

and these statements must be necessary if true ([BR], 254). But Soames argues that not all the sentences one might reasonably call identity statements between predicates have this logical form. Clearly, many of the the identity statements that Kripke uses as examples do not ([BR], 254-7). Many of these identity statements are of one of the following forms:

9a. $\forall x(Ax \supset Bx)$

9b. $\forall x(Ax \iff Bx)$

But given these forms and (EP), these statements do not turn out necessary if true. As Soames says ([BR], 257), given the truth of statements like (9) and the rigidity of A and B, you can get true statements of the form

11d. $\forall x \,\Box\, (Ax \supset Bx)$
$\forall x \,\Box\, (Ax \iff Bx)$

but not

11c. $\Box\, \forall x(Ax \supset Bx)$
$\Box\, \forall x(Ax \iff Bx)$.

This is for the simple reason that given the truth of (9), plus the fact that the the predicates are had by the objects essentially, nothing prevents the possibility of objects that do not exist in the actual world but exist in some possible world w from being A but not B. For example, suppose there is a biological species[2] B which is the only member of its genus A. Then (9b) would be true, and A and B are certainly essentialist / rigid, the relevant part of (11d) is true, and yet there is a world w where there is another species in the genus A, and thus (11c) cannot be true.

Soames's second strategy for trying to extend rigidity to general terms attempts to formulate rigidity for general term predicates by associating them with singular terms. Thus, on this strategy, if P is a predicate with an associated singular term t:

[2]While there are some significant difficulties with treating biological taxa in terms of kinds, nothing hangs on the particularities of the example, it is the sort of example that is used by Kripke, and it provides a fairly natural illustration of some of the important ideas. If the example bothers you, consider your favorite case of identical essential kinds.

15. $\forall x(x$ is $P \iff x$ is an instance of t—for instance, the kind P, the property P, the substance P, the species $P)$

16. A predicate P is rigid $\iff$ its associated singular term t designates the same thing—such as the same kind, property, substance, or species—in all worlds in which that thing exists (and t never designates anything else). ([BR], 259-60)

This proposal for rigidity, if it works, should also get us suitable conditions for identity statements between rigid predicates. If P and Q are rigid predicates with associated singular terms t_P and t_Q, then

17. $t_P = t_Q$

will be necessary if true. Now, it is not the case that

18. $\forall x(Ax \iff Bx)$

is necessary if true, but it is the case that if (17) is true, then (18) will be necessary, and this should be sufficient to fulfill Kripke's conditions, as it makes sense of the notion of a rigid predicate and relates them to the claims about identity statements ([BR], 260), though it turns out that we need an intermediate step between the rigid predicates and the necessity of their identity statements.

Soames finds this stategy wanting for several reasons. First, too many predicates will come out rigid on this interpretation, predicates like 'is a philosopher,' 'is a bachelor,' and 'is a yellow metal.' Second, this characterization of rigidity is not well-defined; it allows us to call predicates such as 'is the color of a cloudless sky at noon' both rigid and nonrigid, because we so far have no procedure for generating unique singular terms from predicates ([BR], 261). But no attempt to give a precise procedure for generating singular terms seems to work. Soames gives two such procedures, one which would make all predicates nonrigid, and the other which would make them all rigid. Neither of these strategies seems appropriate, and Soames sees no further way to proceed.

But consider a third way to define rigidity for general terms, combining the respective strengths of the two strategies that Soames considers.

S3. A predicate P is *rigid* $\iff \exists t \forall x(x$ is $P \iff \Box(x$ is an instance of t if x exists)) where t is some *nonrigidified* singular term such as 'the kind P', 'the property P', etc. A predicate is non-rigid just in case it is not rigid.

It is important to note that these singular terms must be nonrigidified, so that we can avoid terms like 'the actual P' being associated with P. Rigidified terms are as follows:

R. A rigid singular term r is a $rigidified$ term $\iff$ it is formed by applying a rigidifying operator O (e.g., 'actual', Kaplan's 'dthat') to a nonrigid term t. A term is nonrigidified just in case it is not rigidified.

S3 provides an account of rigidity that is faithful to Kripke's formulation and avoids some of the pitfalls associated with the strategies Soames considers. First, for all predicates that are *essentialist*, in the sense of (EP), rigidity seems to come out as it should, according to Kripke. For example, if the tigers from our world are essentially instances of 'the species *tiger*', then 'tiger' comes out rigid.

This also seems to get us the identity statements we want. Consider two rigid predicates, 'water' and 'H_2O'. These predicates will have associated singular terms, perhaps 'the substance *water*' and 'the chemical compound H_2O'. Then we can form an identity statement of the form 'the substance *water* is the chemical compound H_2O' ($t_W = t_{H_2O}$) between the two, and if this is true, it will be necessary, as will the statement 'All and only water is H_2O' ($\forall x(Wx \iff Hx)$). This seems sufficient for the kind of consequences about identity statements that Kripke was looking for.

On the other hand, S3 fails to capture everything that Kripke was after. Many predicates that Kripke indicates are candidates for rigidity come out nonrigid on this account. For example, color predicates, if they are not essential properties of objects (and presumably they aren't), are not rigid predicates. Objects that are red in this world may not be instances of any property, kind, etc. in all possible worlds. It seems that if we are going to understand general terms as predicates, then only essentialist predicates are going to be rigid. which is not entirely compatible with Kripke's account, if Kripke is really committed to the examples he gives, such as 'hotter than', 'red', or 'loud' (see [NN], 138 and [BR], 259). But as Soames argues, there is plenty of textual evidence in Kripke to suggest that rigid predicates really should be essentialist. Furthermore, it seems like we may not be able to arrive at necessary identity statements of the form 'All cats are animals' that Kripke seems to want, because it is not the case that there is a true identity between 'the genus *felis*' and 'the kindom *animalia*'. In other words, the necessity we can get for identity statements is more restricted than Kripke might have thought.

This formulation also has the strange result that all general terms with null extension (e.g. 'round square', 'ghost') come out rigid.This is a degenerate case, very far from the central cases, and probably not something that we have any strong intuitions about. On the other hand, the cases considered earlier seem more important to Kripke's and Soames's projects. This seems like sufficient reason to accept the verdict about necessary empty expressions.

If we are interested in retaining an account of rigidity and non-rigidity for general predicates, S3 is a possibility.

References

[NN] Kripke, S., *Naming and Necessity*, (Cambridge: Harvard University Press, 1972/1980).

[BR] Soames, S. *Beyond Rigidity: The Unfinished Semantic Agenda of* Naming and Necessity, (Oxford: Oxford University Press, 2002).