## PROBLEMS OF PHILOSOPHY

Problem # 9: Reference vs. identification

In any semantics of formal or natural languages which involves more than one model (possible world, scenario, state of affairs, course of events, or situation) a distinction has to be made between criteria of reference and criteria of identification. The former determine the entity picked out (referred to) by a given expression in different models. The latter determine when an object (of any logical type) in one model is identical with an object in another one. Neither set of criteria reduces to the other; in particular, identification cannot be accounted for in terms of special kind of reference. This is shown by the fact that the criteria of identification can be changed without changing the criteria of reference.

The problem cannot be avoided by claiming that possible worlds are our explanatory constructions. For if they are our arbitrary constructions, then so are the identity relations holding between the denizens of different possible worlds. The challenge is to develop explicit formal semantics incorporating the distinction or else refute the distinction.

## REFERENCE

Hintikka, Jaakko and Gabriel Sandu: 1995, 'The Fallacies of the New Theory of Reference', *Synthese* **104**, 245–283.