

**BENACERRAF'S PROBLEM REPHRASED.** In order to be able to assign reference to individual constants there must be a causal connection between acts of reference and objects of reference. No such relation available when objects of reference are mathematical entities.

This claim can be applied to the metaphysics of possible worlds. We cannot gain knowledge of isolated universes by the very fact of their causal (and spatiotemporal) isolation. Lewis responds that we have more warrant for mathematical truths than for any claims of the epistemology of mathematics.

One might accept this defence, yet still retain another insight of Benacerraf's argument. The insight is the challenge to explain the disanalogy between knowledge of material objects.

**LIBERAL PLATONISM.** One formulation of liberal platonism, designed to deal with the epistemological challenge just described, is in saying that mathematical objects themselves are constituted by the practice where claims about them are made. This leads to a consequence that mathematical objects are contingent, so far as the mathematical practices are contingent as well. Stalnaker repudiates this version of liberal platonism.

A different version of the view is that the *commitment* to the existence of mathematical objects is constituted by the endorsement of the practice where claims about them are made. This is spelled out further by saying that there is no demand for an epistemic account to be supplemented in order to justify the practice. The practice justified itself internally. This is a standard Carnapian theme we saw before.

Now there are a number of questions to answer at this point. Is liberal platonism a version of fictionalism? No, because it does not need to help itself with a realist story that is literally true—such as Rosen's encyclopedia of modal realism.

Is liberal platonism a version of instrumentalism? That would mean that liberal platonism does not take seriously the truth value of quantification over mathematical objects. The answer is, as I understand it, that the practice of mathematics contains *assertions*, that is, contains statements that, within that practice, are taken to be truth-apt. Nothing else is needed for establishing truth-aptness.

These considerations carry over, *mutatis mutandis*, to the case of quantification over possible worlds.

**THE ROLE OF VERIFICATIONISM.** Stalnaker then attempts to defend liberal platonism from the charge that it is modal realism in disguise. The claim is not articulated very clearly. Verificationism is supposed to play some role in grounding that difference. Here is one interpretation of that role. Our reasoning about possibility and necessity should provide us not only with the rationale for a belief in possible worlds. It should also provide us with an idea what possible worlds are. The enquiry about possibilities is not done in the way the enquiry into the nature of material objects is done. There is no commitment within that enquiry to the spatiotemporal nature of possible worlds and merely possible objects.