XX   TRUTH: THE LIAR

Disquotational accounts of truth

Frege held that, for every sentence *p*, *p* is equivalent to the sentence *'p' is true*. Frege also held that truth is a primitive and indefinable notion. But many Twentieth Century philosophers have contended that Frege should have pushed his basic insight further: that one understands all that there is to know about truth once one understands that equivalence. We shall consider that idea further on Thursday. But first we shall consider another problem: the paradox of the liar.

Paradox of the Liar

Distinguish the truth operator *It is true that* (taking sentences to sentences) from the truth predicate is true (taking names to sentences). The liar is a problem for the latter:

The standard liar:
> This sentence is false

The strengthened liar:
> This sentence is not true

'Contingent' liars:
> Father: Everything your mother says is true
> Mother: Everything your father says is false
>
> Jones: Most of Nixon's assertions about Watergate are false
> Nixon: Everything that Jones said about Watergate is true

The strengthened liar shows that the problem cannot be escaped by moving to a denial of truth.

The problem arises if the language can achieve self-reference, and if the language is semantically closed, i.e. if there is a truth predicate which can be applied to the name of any sentence of the language to form a sentence that itself receives a truth-value. (Actually even self-reference isn't needed; consider Yablo's paradox in which each premise in an infinite sequence of premises says that all the premises after it are false.)

Tarski

Basic idea: in place of a single language containing its own truth predicate, think of a hierarchy of languages, each of which contains a truth predicate that applies to expressions in the languages below it in the hierarchy, but not to itself. (Tarski was actually skeptical about doing this for English, which he took to be simply contradictory. Quine was more optimistic.) The Liar will now be simply ungrammatical.

Kripke

Basic idea: think of the truth predicate as a partially defined predicate, i.e. one that is defined for some sentences and not for others. Start with the sentences that do not contain any truth predicate. Assign each of them to class of true or false. Now see which of the remaining sentences have their truth values determined as a result of this assignment: assign them to the class of the true or of the false accordingly. Now apply this procedure again. Continue applying it until each application results in no more sentences being assigned to either the true or the false. The Liar will not have been assigned to either the true or the false; it is, in Kripke's terminology, ungrounded. Similarly ungrounded is the Truthteller:

> This sentence is true.

Priest

Simply embrace the contradiction. (Bold) But we now need to block the idea that from a contradiction everything follows.