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Author(s): David Schmidtz
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DAVID SCHMIDTZ

CHARLES PARSONS ON THE LIAR PARADOX*

Tarski proposed that any satisfactory definition of truth must imply all equivalences of the form (T), namely

(T) $(\ulcorner p \urcorner \text{ is true} \equiv p)$ [Tarski 1944, p. 344]

Unfortunately, as Tarski well knew, [Tarski, 1935, p. 165] any definition that implies all equivalences of the form (T) cannot be formally correct, because Liar Paradoxes can readily be constructed as equivalences of the form (T). For example, suppose we create the sentence 'The sentence numbered (1) is not true'. Then we give it a number.

(1) The sentence numbered (1) is not true.

Now, let us use the sentence numbered (1) to construct the following equivalence of the form (T):

(2) 'The sentence numbered (1) is not true' is true ≡ the sentence numbered (1) is not true.

Since the sentence numbered (1) is also denoted by the definite description 'the sentence numbered (1)', we may say that The sentence numbered (1) = 'The sentence numbered (1) is not true'. Further, we may replace, in (2), the quotation name of (1) with the above definite description to obtain

(3) The sentence numbered (1) is true ≡ the sentence numbered (1) is not true.

In response, Charles Parsons constructed a restricted version of (T), which I shall call (P).

(P) $(\ulcorner p \urcorner \text{ is true or } \ulcorner p \urcorner \text{ is false}) \rightarrow (\ulcorner p \urcorner \text{ is true} \equiv p)$

If we suppose (P), then it follows in cases where the consequent is a contradiction and hence false, the antecedent is also false. Therefore, Liar sentences are neither true nor false. Thus, accepting (P) would seem to solve the problem.[1]

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Unfortunately, without an account of what it means to be neither true nor false, this solution does little more than create an *ad hoc* label for paradoxical equivalences of schema (T). Moreover, even if we had such an account, claiming that 'The sentence numbered (1) is not true' is neither true nor false would still be problematic, as we can see from the following:

A. 'The sentence numbered (1) is not true' is neither true nor false. (assumption)
B. 'The sentence numbered (1) is not true' is not true and 'The sentence numbered (1) is not true' is not false. (from A)
C. The sentence numbered (1) = 'The sentence numbered (1) is not true' (since the sentence numbered (1) is also denoted by its definite description)
D. The sentence numbered (1) is not true and the sentence numbered (1) is not false (from B and substitutivity of identicals)
E. The sentence numbered (1) is not true. (simplification of D)
F. 'The sentence numbered (1) is not true' is not true. (simplification of B)

Have we uncovered a contradiction? Suppose I went on to infer from sentence E that

G. 'The sentence numbered (1) is not true' is true.

Sentence G explicitly contradicts sentence F. Moreover, if schema (P)'s consequent is true, sentence G *follows from* sentence E. But we cannot infer G because we cannot assume the consequent is true in this case. We can deny that schema (P)'s consequent is true in this case without abandoning schema (P). We need only deny that the antecedent is true. In other words, we may deny that sentence E is true and thereby avoid the move to G, escaping the outright *reductio* of schema (P). We may instead claim that sentence E is neither true nor false.[2]

The claim is *ad hoc*, of course, but the problems go deeper than that. Although we may not have derived statements that contradict each other, it remains somewhat paradoxical that we were able to validly infer something neither true nor false from a true premise. Normally, we think of a valid argument as one that preserves truth value. Should we redefine validity, or should we abandon many of the rules of inference we heretofore took to be valid?

Nor does it help to retreat even further by saying schema (P) never implied that the premise (sentence A) was *true*. Suppose we say sentence A is neither true nor false. It remains the case that schema (P) implies sentence A. If schema (P) is true, and sentence A is neither true nor false, then we still have a case where true premises yield conclusions that are neither true nor false.

Suppose we retreat further yet to the position that schema (P) *itself* is neither true nor false. Then even if it has important implications, why we should take them seriously becomes unclear. We noted our lack of an account of what 'neither true nor false' does other than pick out paradoxical equivalences of schema (T). Now it appears we should conclude that schema (P) is neither true nor false. And all this seems to mean is that schema (P) has its own somewhat paradoxical implications.

NOTES

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[1] Consider the so-called 'revenge problem'. The sentence numbered (1) says of itself that it is not true. If it is neither true nor false, then in particular it is not true. But that is what sentence (1) has been trying to tell us all along. Therefore it is true after all, leaving us bound for paradox once again. The revenge problem, however, presupposes a well-defined term 'true' such that the sentence numbered (1) is true "after all". That term cannot be defined in the object language, because in the object language the sentence numbered (1) is not true. The sentence numbered (1) is therefore true in one sense and not true in another. There is no contradiction. [See Parsons, p. 35]

[2] The other approach would be to defuse the tension between sentences E and F with the same distinction between object language and metalanguage that helped Parsons solve the revenge problem. [See note 1.] Unlike my argument, however, the revenge problem's argument steps back to observe itself, as it were, and says, "Look! The Liar sentence says something true after all!" Because the revenge problem does this, the burden of proof is not on Parsons to defend the object-metalanguage distinction he makes in reply. Since my argument takes no such step, the burden of proof *is* on one who responds to it with an object – metalanguage distinction. And the burden is heavy for anyone who, like Parsons, wants his answer to be relevant to natural languages. One has to argue that such language level jumps are there to be made in natural languages. Now suppose I assert something (say, in a court of law) and you immediately reply, "That's not true!" If the language level story correctly describes natural languages, I

have no reason to think you are contradicting me. What a mysterious view of natural language that would be.

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Department of Philosophy
Box 3650
Yale University
New Haven, CT 06520
U.S.A.