'THIS STATEMENT IS NOT TRUE' IS NOT TRUE

By Laurence Goldstein

THIS PAPER falls into two parts. We first consider the truth-values of paradoxical statements in the Liar family. Very few authors have argued that the Liar statement 'This statement is false' is true. Many, however, have argued that it is false. Twenty years ago, the literature reflected a majority endorsement of the view that the Liar has *neither* truth-value and, still more recently, there has been considerable support for the claim that it has *both*. In Section I, a demonstration is offered of the *prima facie* implausibility of the first two options. That leaves a choice between the 'truth-value gap' and 'truth-value glut' alternatives. Of course, a large number of possible solutions fall under these two headings.

The idea that some statements are both true and false is extremely unsettling, but logicians have been prepared to ascribe this 'glut' value to the Liar largely because there is a broad consensus that the 'gap' option fails to come to terms with the paradox of the 'Strengthened Liar' — where a statement says of itself that it is *not true*. Of that statement, the gappist wants to say that it is not true — yet, since the statement says just that of itself, it claims things to be the way the gappist says they are, so the gappist seems now obliged to say that the statement is *true*. In Section II, I show that the gappist can hold that the Strengthened Liar is truth-valueless without sliding into this contradiction. So a 'gap' solution remains a possibility. Indeed, I think it is the right way to go. Having set limits, in Section I, to the range of possible solutions, I proceed in Section II to a defence of the particular solution I favour.

I   Limiting the Options

Consider the following pair of statements P:

    S_1: S_2 is false.
    S_2: S_1 is false.

We can ascribe a truth-value to each member of the pair such that no contradiction can be derived from those ascriptions. In a run-of-the-mill paradox in the Liar family, we argue from the reasonable assumption that a certain statement (or each member of a certain set of statements) has a unique truth-value to the unreasonable conclusion that some statement is both true and false. P doesn't fit this characterization so, some would say, it doesn't amount to a paradox. Further, since we can consistently assign

1

either the value 'true' or 'false' to each member of P (as long as we ascribe the opposite value to the other member), P is, in this respect, similar to the statement 'This statement is true', the 'truth-teller' variant of the Liar. Why, then bother with P, which is a bit more complicated but doesn't seem to introduce any interesting new wrinkles? I want to show, first of all, that there is something important to be learned from reflecting on P.

Inspection of P reveals that, on classical principles, if S_1 is true, S_2 is false, and vice versa; if S_1 is false, S_2 is true, and vice versa. In short,

> (1) If each statement in P has a unique truth-value, then each has the *opposite* value of the other.

But now, suppose we restate S_1, by substituting the quotation name of the statement of which S_2 is the label. We get

> S_1: 'S_1 is false' is false.

and similarly, by substituting for 'S_1' in S_2, we have

> S_2: 'S_2 is false' is false.

So S_1 says of itself just what S_2 says of itself, and nothing else: only the names differ. There can be no principled reason at all for ascribing them different truth-values and hence, by symmetry

> (2) If each statement in P has a unique truth-value, then each has the *same* value as the other.

From (1) and (2) it follows that it is not the case that each statement in P has a unique truth-value, so, by symmetry, neither one has.

Although the above argument does not *entail* that all the statements in Liar-type paradoxes do not have unique truth-values,[1] one is now bound, I think, to find that conclusion highly compelling. So there are two possibilities. First, accept the claim that Liar-type statements have non-unique truth-values or, second, accept that such statements have *neither* of the classical truth-values. The first of these alternatives, the dialetheist view, is one about which I have already expressed unease, and have criticized elsewhere. But the second alternative, the 'truth-value gap' position is widely believed to fall foul of the 'Strengthened Liar'.

II   ESCAPING THE STRENGTHENED LIAR

The gappist holds that Liar-type statements are neither true nor false, and so holds *a fortiori* that such statements are not true. Now

---

[1] One could, for example, with Buridan, adopt non-standard criteria for truth-evaluation (see [4], pp. 18–20), or hold that a Liar sentence expresses two propositions, one true, one false (see [8]).

take the statement

S: S is not true.

The gappist wants to say that S is one of those Liar-type statements that he holds to be not true. But if he comes out and says this, viz. 'S is not true', then he is asserting (committing himself to the truth of) the very statement that he just wished to say was not true.

Versions of the Strengthened Liar easily knock out a number of attempted solutions to the Liar paradox (see Priest [7]), including the fairly recent proposals of Kripke [5], Herzberger [3] and Gupta [2]. The critical test of any solution that seeks to urge that Liar-type statements are neither true nor false is whether it can meet the challenge of the Strengthened Liar. Further, what our reflections on P suggest is that any genuine solution must have something to say about those variations on the Liar where, although no contradiction is derivable, there is, nevertheless, something funny going on. These are two substantial constraints on the adequacy of any solution.

In both P and its mate

The statement below is false.
The above statement is true.

there is 'something funny going on', but, as we have seen, what it is that's funny is not necessarily contradiction-inducing. The situation can be illuminatingly compared to one in which companies are competing for a certain contract by submitting sealed tenders. If Company A says

Company A offers to do the job for £1000 less than Company B.

then (assuming this form of tender were allowed), there would be no difficulty if Company B named a definite price. However, if Company B says

Company B offers to do the job for £1000 less than Company A.

then the contractor should deem neither company to have tendered a price for the job. A 'truth-teller variant' would occur if, for some strange reason, Company B's tender were instead

Company B offers to do the job for £1000 more than Company A.

in which case the contractor could name any price he liked.

We have now seen that there are forms of words which can be used successfully to make an offer, but which, under odd external circumstances, cannot. There is nothing intrinsically wrong with the form of words, no vagueness, sortal mismatch etc. It's just that,

on those odd, paradoxical, occasions, a successful use of that form of words (to make an offer, state a price) depends upon the success of the use of another form of words, which, in turn, and viciously, depends on the success of the first. Similarly, in P and in indirect versions of the Liar, the success of a use of a form of words to make a truth-evaluation depends viciously on that very success. Again, in a direct version, such as 'This statement is false', the success of this as a claim — as a truth-evaluation — depends on whether what it refers to (namely, itself) succeeds in making a truth-evaluable truth-evaluation. Compare 'I offer you £10 more than this offer'. Contrast 'This statement is in English'. That last statement *can* be truth-evaluated, since such an evaluation does not depend on any truth-evaluation, but only on an evaluation, obtained by inspection, of what language the statement is couched in. Our conclusion, then, is that the paradox-provoking agent for paradoxes in the Liar family is not negation nor truth nor falsity nor self-reference in general but, as Russell believed, a vicious circle of dependency.

The tender analogy can be taken one step further. The form of words 'Company A offers to do the job for £1000 less than Company B' may be uttered, or issued by Company A. That form of words can sometimes be *used* by Company A to *make an offer* (and sometimes not), and that same form of words can be used by a commentator to *describe* an offer. In vicious cases, where the company issues those words but fails to make an offer, one could take different philosophical stands on the question of whether the commentator's description is true, false or neither. A defective offer, a misfiring attempt at making an offer, is altogether different from the *description* of a defective offer or of a misfire. Now, surely, in the case of the Strengthened Liar, S, we can similarly say quite happily that S fails to make a claim about itself, while holding that *our description* of S is true, even though, in both cases, the same form of words, viz. 'S is not true' is used. There is an element of indexicality present here, as both Buridan [4] and Tyler Burge [1] have noticed (although Burge misattributes it to the predicate 'true').[2] The statement 'S is not true' has a different value (viz. 'true') in the mouth of a commentator from the truth-value it has (namely, none) in the mouth of a speaker of S. The indexicality resides in the subject term, as is evident in many versions of the Liar (e.g. 'This statement is not true'). Objection: You want to say that S is not true; well, that's just what S says it is, so S says how things are, i.e. S is true, contrary to what you originally wanted to

---

[2] Buridan ([4], p. 53) sees that two speakers may simultaneously utter tokens of the same type sentence, yet their utterances have different truth values even though the sentence contains no demonstrative or token-reflexive expressions. Had he inferred (rather than denied) that the speakers have different *thoughts* then he would have discovered externalism about mental states six hundred years before Burge and Putnam did.

say. Reply: We do say *about* S that it is not true, but that's not 'just what S says it is', since S does not evaluate *itself* as not true; it *fails* to self-evaluate. Conclusion: We have argued that paradoxical statements in the Liar family lack any truth-value, and we have seen how to say this without exchanging an old paradox for a new one.

University of Hong Kong,
Pokfulam Road, Hong Kong

REFERENCES

[1] Tyler Burge, 'Semantical Paradox', *The Journal of Philosophy* 76 (1979) 169–198; reprinted in [6].
[2] Anil Gupta, 'Truth and Paradox', *Journal of Philosophical Logic* 11 (1982) 1–60; reprinted in [6].
[3] Hans Herzberger, 'Notes on Naive Semantics', *Journal of Philosophical Logic* 11 (1982) 61–102; reprinted in [6].
[4] G. E. Hughes, *John Buridan on Self-Reference: Chapter Eight of Buridan's 'Sophismata'* (Cambridge: Cambridge University Press, 1982).
[5] Saul Kripke, 'Outline of a Theory of Truth', *The Journal of Philosophy* 72 (1975) 690–716; reprinted in [6].
[6] R. L. Martin (ed.), *Recent Essays on Truth and the Liar Paradox* (Oxford: Oxford University Press, 1984).
[7] Graham Priest, 'Unstable Solutions to the Liar Paradox', in *Self-Reference: Reflections on Reflexivity*, edited by S. J. Bartlett and P. Suber (Dordrecht, Nijhoff, 1987) 145–175.
[8] B. H. Slater, 'Liar Syllogisms and Related Paradoxes', *Analysis* 51 (1991) 146–153.

CONDITIONALS ARE NOT TRUTH-FUNCTIONAL: AN ARGUMENT FROM PEIRCE

By STEPHEN READ

IN his paper, 'Prolegomena to an Apology for Pragmaticism' (*Collected Papers*, Cambridge, Mass.: Harvard University Press, 1933, vol. 4 §546; see also §580), C. S. Peirce asks us to consider the two propositions:

> (1a) Some married woman will commit suicide if her husband fails in business

and

> (2a) Some married woman will commit suicide if every married woman's husband fails in business.