A New Gettier-Type Refutation of Nozick's Analysis of Knowledge

JEROME GELLMAN
Ben-Gurion University of the Negev, Israel

In *Philosophical Explanations,* Robert Nozick aims to present an analysis of knowledge not susceptible to Gettier-type objections, as well as to other types of objections.[1] He means to accomplish this by introducing subjunctive conditionals into his analysis. In this note I show by way of a counter-example that Nozick's analysis in terms of subjunctive conditionals does not turn back all Gettier-type examples. My counter-example raises broader questions whether any "subjunctive analysis" will do the trick.

Nozick's idea is that when S knows p there must be "the right kind of causal connection" between p's being true and S's believing p to be true. This idea is unpacked further by saying that S's belief that p must be *sensitive to p's falsity* and must be *sensitive to p's truth*. These two sayings, respectively, are then formulated as subjunctive conditionals as follows:

(1) Not-p > not-(S believes that p) (sensitivity to falsity)
(2) p > S believes that p (sensitivity to truth)

On Nozick's favored "possible world" analysis, a subjunctive conditional, "p > q" is true when in all those worlds in which p holds true that are closest to the actual world, q is also true. Hence, (1) is true when in all worlds closest to the actual world in which p is not true, it is not the case that S believes p. Nozick believes that adding (1) to the conditions of knowledge will rule out Gettier examples, because in them the person in question does believe p in worlds closest to the actual world in which p is not true. Adding (2) to the conditions of knowledge takes care of a different class of counter-examples, such as where a person in a tank is oblivious to her surroundings and has her brain artificially stimulated to believe she is in a tank. She does not

© *Principia* 8 (2) 2004, pp. 279–283. Published by NEL – Epistemology and Logic Research Group. Federal University of Santa Catarina (UFSC), Brazil.

know she is in a tank. Nozick takes care of this type of example by claiming that the subject is not sensitive to the truth: That is, in closest possible worlds where she is in a tank and oblivious to her surroundings, but where she is not artificially stimulated to believe she is in a tank, she will *not* believe she is in a tank. She is not "sensitive to the truth."

Adding these two conditions yields Nozick's analysis of knowledge:

(i) S believes that p is true
(ii) p is true
(iii) Not-p > not- (S believes that p) (1 above)
(iv) p > S believes that p. (2 above)

In what follows I show that Nozick has not succeeded in solving all Gettier-type examples. I do this by creating a new type of Gettier-example that fulfills all four of Nozick's conditions for knowledge, where knowledge does not obtain.

Suppose the following:

1. It follows from a law of nature that S believes *that there is life on Mars* iff S in brain state B10. So there is this lawful correlation between this mental state of S and this state of S's brain.
2. S knows nothing of this correlation.
3. S believes *that there is life on Mars*.
4. S has solid evidence for his belief *that there is life on Mars*.
5. It is false *that there is life on Mars*.
6. S believes that he is not in brain-state B10.
7. S has solid evidence that he is not in brain state B10.
8. S has acquired a habit of inferring disjunctions with *I am in brain state B10* as the second disjunct, when S feels warranted in believing the first disjunct.[2] Therefore, S then infers from *that there is life on Mars* that:

(A) (There is life on Mars or I am in brain state B10).

I will now argue that even though S believes (A), (A) is true, and S is sensitive to both the falsity and truth of (A), as defined by Nozick, still S does not know that (A) is true.

Given these, we can form the following conclusions:

9. **S believes that (A)**. By hypothesis. So Nozick's first condition is fulfilled.
10. **(A) is true**. Since S believes *that there is life on Mars*, then by assumption 1 the second disjunct of (A) is true. So (A) is true. So Nozick's second condition is fulfilled.
11. **If A were false, then S would not believe A.** In the worlds closest to our actual world where A is false, both disjuncts of (A) will be false. However, in the worlds closest to our world, the laws of nature of our world hold, so in particular assumption 1 will hold. So, if the second disjunct of (A) is false, then it follows by assumption 1 that S does not believe the first disjunct *that there is life on Mars*. In addition, S will also continue to disbelieve the second disjunct, supported as his disbelief is by solid evidence, per assumption 7. In addition, we may also assume that in the worlds closest to our world S will not have a reason to suddenly begin to think the disjunction (A) true without believing concerning any particular disjunct that *it* is true. In sum, in the closest worlds to ours in which (A) is false, S will no longer believe that (A) is true, So Nozick's third condition is fulfilled: S's belief that (A) is sensitive to falsity.
12. **If A were true, then S would believe A.** In the worlds closest to our actual world in which (A) is true, either (A)'s first or second disjunct will be true. If its first disjunct is true, we have every reason to believe that in the worlds closest to ours the solid evidence in assumption 4 will still produce in S the belief that that disjunct is true. Once S believes *that there is life on Mars*, S will infer (A) (due to his acquired habit, per assumption 8) and believe (A) true. If the second disjunct is true in the worlds closest to ours, then by assumption 1 it follows that S will believe *that there is life on Mars*, which is the first disjunct, and, once again, will continue, by habit, to infer (A) and believe it true. So Nozick's fourth condition is fulfilled: S's belief that (A) is sensitive to truth.

13. **S does not know that (A) is true**. The reason is similar to what motivates us to say about one of Gettier's original examples that there is no knowledge: It is the truth of the *first* disjunct that assures S that (A) is true, but that disjunct is false. On the other hand, it is the *second* disjunct that makes (A) true, but S doesn't believe that disjunct to be true. So S does not know that (A) is true.

Since by (9)–(12) all four of Nozick's conditions are fulfilled, and by (13) S does not have knowledge, it follows that Nozick's analysis is inadequate. The problem here is that the turn to subjunctive conditionals of Nozick's conditionals (iii) and (iv) can be subverted by fabricating guaranteed similarities between our world and its close worlds, by introducing just the right habits and laws of nature. It remains to be seen whether the turn to subjunctive conditionals can be saved, and with it Nozick's analysis of knowledge. My counter-example suggests that subjunctive conditionals do not capture properly the idea of "the right kind of causal connection" between a belief and its truth to succeed in an analysis of knowledge.[3]

Jerome Gellman
Department of Philosophy
Ben-Gurion University of the Negev
Beer-Sheva 84105, Israel
gellman@bgumail.bgu.ac.il

Notes

[1] Robert Nozick, *Philosophical Explanations* (Cambridge, Mass.: Harvard University, 1981), Chapter 3, Section 1.

[2] Various scenarios are possible for how this comes about in a way that makes the resulting disjunction assertable for S. For example, S may be a logic teacher who has gotten into the habit of illustrating the rule of "Disjunction" precisely in this way, to illustrate that a false proposition may be disjoined to a true one with the preservation o truth. We may even add that in my scenario S is teaching logic. I leave it to the reader to find some perhaps more regular applications.

Principia 8 (1), Florianópolis, December 2004, pp. 279–283.

[3] I am very much indebted to Alex Blum, Yakir Levine and Ira Schnall for their helpful comments.