

IS KNOWLEDGE TRANSITIVE ?

James E. TOMBERLIN

Consider:

- (1) If a person *X* knows that a person *Y* knows that *P*, then *X* knows that *P*.

Now if (1) should be a true principle, it would establish a sort of transitivity of knowledge. But is (1) true? A number of prominent philosophers think so. The late Professor J. L. Austin, for example, appears to have accepted the principle in his classic paper "Other Minds." (1) And (1) occurs as a "self-sustaining implication" in Jaakko Hintikka's pioneering contribution to the problem of formalizing the logic of the concept of knowledge, *Knowledge and Belief*. (2) Finally, Hector-Neri Castañeda has endorsed a qualified version of this principle in several recent papers. (3) (It should be noted that the force of my comments about (1) are entirely independent of Castañeda's qualifications of this principle.) So (1) is obviously not without its advocates. The purpose of the present paper, however, is to argue that this epistemic principle is surely false and had better be scotched before it creeps into the received textbooks.

For openers, it should prove helpful to make a few general remarks about the concept of knowledge. Now the truth or falsity of (1) aside, for the moment, there are no doubt cases where a man knows that a statement is true even though there is no other statement that justifies his belief. For purposes of convenience, let us label any such case of knowledge *basic knowledge*. Following Keith Lehrer and Thomas Paxson, Jr., (4) the analysis of basic knowledge seems perfectly straightforward and unobjectionable: A person *X* has basic knowledge that *P* if and only if (i) *P* is true, (ii) *X* believes that *P*, (iii) *X*

is completely justified in believing that P , and (iv) the satisfaction of condition (iii) does not depend on any evidence Q justifying X in believing that P . On the other hand, it should be equally clear that not all knowledge is basic knowledge, because sometimes justifying evidence is essential. Let us label *nonbasic knowledge* any case of knowledge that does require justifying evidence. Now the proper analysis of nonbasic knowledge is of course anything but clear. Nonetheless, this much seems certain. For some (and perhaps all, but I do not have to decide this matter) cases of nonbasic Knowledge, it is essential, not only that the person have adequate evidence for his belief, but that his belief be based on that adequate evidence. For example, a detective who, for whatever reason, neglects the honest and truthful testimony of a reliable eye-witness to a crime, but accepts the lying testimony of an ignorant meddler, when both tell him that Jones committed the crime would fail to be completely justified in believing this. For his belief in this case is not based on the adequate evidence supplied by the reliable eye-witness but is instead based on the inadequate evidence supplied by the ignorant meddler.⁶

In short, the presence of cases such as the one above establish the truth of

- (2) For some person a and some proposition P , a has adequate evidence for P but a is not completely justified in believing P .

Next we observe that for nonbasic knowledge the following obviously holds:

- (3) For any person a and proposition P , a nonbasically knows that P only if a is completely justified in believing that P .

Armed now with (2) and (3), we may set out a counterexample to the thesis (1).

Suppose that a certain student, Mr. Haphazard, is enrolled in a beginning philosophy course taught by an eminent philosopher, Professor Reliablelot. After the first nine weeks of the course, Mr. Haphazard, along with the other students in the course, learns that everything Professor Reliablelot says about the course material is true and Professor Reliablelot knows it to be true. During the next week of the course, the Professor

informs his class that St. Anselm's ontological argument is fallacious. Hearing this, performing the appropriate inference, and whatever else you wish to pack in here, Mr. Haphazard, we may suppose, now knows that (4) is true:

(4) Professor Reliablelot knows that St. Anselm's ontological argument is fallacious.

Now, admittedly, the evidence Mr. Haphazard has for believing (4) is equally good evidence or his believing (5):

(5) St. Anselm's ontological argument is fallacious.

For part of that evidence is the information that everything Professor Reliablelot says is true. But surely, if Mr. Haphazard knows (5), he nonbasically knows (5). That is, (5) will never be part of Mr. Haphazard's basic knowledge. Hence it follows that Mr. Haphazard knows (5) only if he believes it on the basis of his adequate evidence. But, as luck would have it, Mr. Haphazard, true to his name, now ignores this adequate evidence, and bases his belief that (5) is true on his absurd and unfounded prejudice that everything written by St. Anselm is fallacious. Hence, Mr. Haphazard is not completely justified in believing (5). And thus he fails to know (5) even though he knows (4). In short, our Mr. Haphazard has falsified thesis (1), a thesis thought by many to be a secure epistemic principle. (6)

Son Fernando Valley State College

James E. TOMBERLIN

FOOTNOTES

(1) In *Logic and Language*, second series, ed. by Anthony FLEW (Oxford, 1953), especially p. 144.

(2) Ithaca: Cornell University Press, 1962, pp. 60-62.

(3) See his papers: "He: A Study in the Logic of Self-Consciousness," *Ratio*, vol. VIII, no. 1 (February 1967), and "Omniscience and Indexical Reference," *The Journal of Philosophy*, vol. LXIV, no. 7 (April 13, 1967). Incidentally, in the second of these papers, Castañeda makes essential use of (1) in discussing the incompatibility of God's *omniscience* and *immutability*. For a quite different treatment of this interesting problem, see my papers: "Plantinga's Puzzles about God and Other Minds," *The Philosophical Forum*, vol. I, no. 3 (New Series), Spring 1969, pp. 365-391, especially pp. 376-384, and "Omniscience and Necessity," *The Philosophical Forum*

(forthcoming).

(4) "Knowledge: Undefeated Justified True Belief," in *The Journal of Philosophy*, LXVI, 8 (April 24, 1969), pp. 225-237. A similar distinction between basic and nonbasic *justified belief* is made in my recent paper, "Is Belief in God Justified?", in *The Journal of Philosophy*, LXVII, 2 (January 29, 1970), pp. 31-38.

(5) This point as well as the example of it are due to Keith LEHRER in his paper, "Knowledge, Truth, and Evidence", *Analysis*, vol. 25, no. 5 (April, 1965), pp. 168-175.

(6) For the interested reader, I should remark that the failure of thesis (1) is by no means the only defect besetting Hintikka's attempt to formalize the logic of knowledge in *Knowledge and Belief*. Elsewhere, I have argued that Hintikka's epistemic counterparts to the modal principles $Np \supset NNp$ and $N(p \supset q) \supset (Np \supset Nq)$ also fail. For a discussion of the first thesis, the thesis that $Kap \supset KaKap$, see my paper, "Knowing Without Knowing That One Knows", in *Philosophia* (forthcoming). For a discussion of the second thesis, the thesis that $Ka(p \supset q) \supset (Kap \supset Kaq)$, see my paper, "Knowledge and Implication", to appear in *Ajatus* along with a reply by Hintikka. Despite Hintikka's pioneering attempt, the logic of knowledge still waits for its adequate formalization.