IS JUSTIFIED TRUE BELIEF KNOWLEDGE?

By EDMUND L. GETTIER

VARIOUS attempts have been made in recent years to state necessary and sufficient conditions for someone's knowing a given proposition. The attempts have often been such that they can be stated in a form similar to the following:[1]

(a) S knows that P   *IFF*   (i) P is true,
                                          (ii) S believes that P,   and
                                          (iii) S is justified in believing that P.

For example, Chisholm has held that the following gives the necessary and sufficient conditions for knowledge:[2]

(b) S knows that P   *IFF*   (i) S accepts P,
                                          (ii) S has adequate evidence for P, and
                                          (iii) P is true.

Ayer has stated the necessary and sufficient conditions for knowledge as follows:[3]

(c) S knows that P   *IFF*   (i) P is true,
                                          (ii) S is sure that P is true,   and
                                          (iii) S has the right to be sure that P is true.

I shall argue that (a) is false in that the conditions stated therein do not constitute a *sufficient* condition for the truth of the proposition that S knows that P. The same argument will show that (b) and (c) fail if ' has adequate evidence for ' or ' has the right to be sure that ' is substituted for ' is justified in believing that ' throughout.

    I shall begin by noting two points. First, in that sense of ' justified ' in which S's being justified in believing P is a necessary condition of S's knowing that P, it is possible for a person to be justified in believing a proposition that is in fact false. Secondly, for any proposition P, if S is justified in believing P, and P entails Q, and S deduces Q from P and accepts Q as a result of this deduction, then S is justified in believing Q. Keeping these two points in mind, I shall now present two cases

[1] Plato seems to be considering some such definition at *Theaetetus* 201, and perhaps accepting one at *Meno* 98.
[2] Roderick M. Chisholm, *Perceiving: a Philosophical Study*, Cornell University Press (Ithaca, New York, 1957), p. 16.
[3] A. J. Ayer, *The Problem of Knowledge*, Macmillan (London, 1956), p. 34.

in which the conditions stated in (a) are true for some proposition, though it is at the same time false that the person in question knows that proposition.

Case I:

Suppose that Smith and Jones have applied for a certain job. And suppose that Smith has strong evidence for the following conjunctive proposition:

(d) Jones is the man who will get the job, and Jones has ten coins in his pocket.

Smith's evidence for (d) might be that the president of the company assured him that Jones would in the end be selected, and that he, Smith, had counted the coins in Jones's pocket ten minutes ago. Proposition (d) entails:

(e) The man who will get the job has ten coins in his pocket.

Let us suppose that Smith sees the entailment from (d) to (e), and accepts (e) on the grounds of (d), for which he has strong evidence. In this case, Smith is clearly justified in believing that (e) is true.

But imagine, further, that unknown to Smith, he himself, not Jones, will get the job. And, also, unknown to Smith, he himself has ten coins in his pocket. Proposition (e) is then true, though proposition (d), from which Smith inferred (e), is false. In our example, then, all of the following are true: (*i*) (e) is true, (*ii*) Smith believes that (e) is true, and (*iii*) Smith is justified in believing that (e) is true. But it is equally clear that Smith does not *know* that (e) is true; for (e) is true in virtue of the number of coins in Smith's pocket, while Smith does not know how many coins are in Smith's pocket, and bases his belief in (e) on a count of the coins in Jones's pocket, whom he falsely believes to be the man who will get the job.

Case II:

Let us suppose that Smith has strong evidence for the following proposition:

(f) Jones owns a Ford.

Smith's evidence might be that Jones has at all times in the past within Smith's memory owned a car, and always a Ford, and that Jones has just offered Smith a ride while driving a Ford. Let us imagine, now, that Smith has another friend, Brown, of whose whereabouts he is totally ignorant. Smith selects three place-names quite at random, and constructs the following three propositions:

(g) Either Jones owns a Ford, or Brown is in Boston;

(h) Either Jones owns a Ford, or Brown is in Barcelona;

(i) Either Jones owns a Ford, or Brown is in Brest-Litovsk.

Each of these propositions is entailed by (f). Imagine that Smith realizes the entailment of each of these propositions he has constructed by (f), and proceeds to accept (g), (h), and (i) on the basis of (f). Smith has correctly inferred (g), (h), and (i) from a proposition for which he has strong evidence. Smith is therefore completely justified in believing each of these three propositions. Smith, of course, has no idea where Brown is.

But imagine now that two further conditions hold. First, Jones does *not* own a Ford, but is at present driving a rented car. And secondly, by the sheerest coincidence, and entirely unknown to Smith, the place mentioned in proposition (h) happens really to be the place where Brown is. If these two conditions hold then Smith does *not* know that (h) is true, even though (*i*) (h) *is* true, (*ii*) Smith does believe that (h) is true, and (*iii*) Smith is justified in believing that (h) is true.

These two examples show that definition (a) does not state a *sufficient* condition for someone's knowing a given proposition. The same cases, with appropriate changes, will suffice to show that neither definition (b) nor definition (c) do so either.

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CIRCULARITY AND INDUCTION

By Peter Achinstein

1. $\quad$ RECENTLY[1] I suggested why an argument proposed by Max Black, which attempts to support an inductive rule by citing its past success, suffers from circularity. The inductive rule under discussion is this:

R: To argue from *Most instances of As examined under a wide variety of conditions have been B* to (probably) *The next A to be encountered will be B*.

The argument in favour of the rule is as follows:

(a): In most instances of the use of R in arguments with true premisses examined in a wide variety of conditions, R has been successful.
$\qquad$ *Hence (probably)*:
In the next instance to be encountered of use of R in an argument with a true premiss, R will be successful.

[1] " The Circularity of a Self-Supporting Inductive Argument ", ANALYSIS, 22.6 (June 1962).