JUSTIFICATION AND INDEFINITE PROPOSITIONS: DISARMING GETTIER'S COUNTEREXAMPLES

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Philosophers generally agree that Edmund Gettier's celebrated counterexamples to the traditional analysis of knowledge are sucessful in falsifying that analysis. But in what follows I shall argue that we can disarm Gettier's counterexamples by acknowledging a natural limitation on the justifying capability of one's evidence. This limitation, surprisingly, has thus far gone unnoticed in the extensive literature on the so-called Gettier problem.

I

Gettier has presented the following counterexamples to the widely accepted view that justified true belief is sufficient for knowledge:[1]

(E1) Smith and Jones have applied for the same job. Smith is justified in believing that (i) Jones will get the job, and that (ii) Jones has ten coins in his pocket. On the basis of (i) and (ii) Smith infers, and thus is justified in believing, that (iii) The person who will get the job has ten coins in his pocket. However, as it turns out, Smith himself actually gets the job, and he also happens to have ten coins in his pocket. Thus, although Smith is justified in believing the true proposition (iii), Smith does not know (iii).

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[1] See Gettier, "Is Justified True Belief Knowledge?", *Analysis* 23 (1963), 121-23, reprinted in *Knowledge and Belief*, ed. A. Phillips Griffith (London: Oxford University Press, 1967), pp. 144-46.

(E2) Smith is justified in believing the false proposition that (i) Jones owns a Ford. On the basis of (i) Smith infers, and thus is justified in believing, that (ii) Either Jones owns a Ford or Brown is in Barcelona. However, as it turns out, Brown happens to be in Barcelona, and so (ii) is true. Thus, although Smith is justified in believing the true proposition (ii), Smith does not know (ii).

Some philosophers have contended that (E1) and (E2) are defective counterexamples insofar as they rely on the false principle that false evidence can justify one's beliefs.[2] But there are examples similar to (E1) and (E2) that do not rely on this principle. Consider, for instance, the following example:[3]

(E3) Smith's office-mate Mr. Nogot, whom Smith has always found to be reliable and honest, has told Smith that he, Nogot, owns a Ford. On the basis of this evidence Smith correctly deduces, and thus is justified in believing, the following true existential generalization: (i) There is someone in Smith's office, whom Smith has always found to be reliable and honest, who has told Smith that he owns a Ford. On the basis of (i) Smith infers, and thus is justified in believing, that (ii) Someone in the office owns a Ford. However, as it turns out, Nogot has been lying, and (ii) is true only because another person in the office, Mr. Havit, owns a Ford. Thus, although Smith

2 See, for instance, D. M. Armstrong, *Belief, Truth, and Knowledge* (Cambridge: Cambridge University Press, 1973), p. 152; and Robert G. Meyers and Kenneth Stern, "Knowledge Without Paradox," *Journal of Philosophy* 70 (1973), 147.

3 The following example is presented in Richard Feldman, "An Alleged Defect in Gettier Counter-Examples," *Australasian Journal of Philosophy* 52 (1974), 68-69. A similar example has been presented by Keith Lehrer, *Knowledge* (Oxford: Clarendon Press, 1974), pp. 20-21. Lehrer has suggested that Gettier himself originally proposed the following sort of example in 1970; see Lehrer, "The Gettier Problem and the Analysis of Knowledge," in *Justification and Knowledge*, ed. G. S. Pappas (Dordrecht: Reidel, 1979), p. 75.

is justified in believing the true proposition (ii), Smith does not know (ii).

Given this sort of example, we evidently cannot undercut Gettier counterexamples simply by requiring that one's evidence for one's justified beliefs be true.

But I believe we can undercut counterexamples like (E1)-(E3) by placing a different sort of limitation on the justifying capability of one's evidence. This limitation concerns the justification of contingent indefinite propositions, in cases other than where one has justifying evidence for such a proposition, but lacks justifying evidence concerning a way in which such a proposition is, or would be, true. An indefinite proposition is just a proposition that can be true in more than one way. For present purposes, contingent non-redundant disjunctions and existential generalizations provide good examples of such a proposition. With respect to such disjunctions and generalizations, the talk of a way in which an indefinite proposition is, or would be, true should be understood as follows: A way in which a disjunction is, or would be, true may be described by any set of its disjuncts; and a way in which an existential generalization is, or would be, true may be described by any set of its instantiations. For instance, a way in which (ii) in (E2) is true is described by the proposition that Brown is in Barcelona. And a way in which (iii) in (E1) is true is described by the proposition that Smith, who will get the job, has ten coins in his pocket.

It will also be useful in what follows to speak comparatively of the indefiniteness of a proposition. Let us say that a contingent proposition p is *less indefinite than* another contingent proposition q if and only if there are more ways for q to be true than for p to be true. And let us say, accordingly, that p is *more indefinite than* q if and only if there are more ways for p to be true than for q to be true. Given these comparative notions, we should hold that the proposition that Nogot owns a Ford, for instance, is less indefinite than the proposition that someone owns a Ford. For, clearly, there are many more

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ways for the latter than for the former proposition to be true. The proposition that someone owns a Ford will, of course, be true whenever the proposition that Nogot owns a Ford is true. But the converse clearly does not hold; there are many ways for the proposition that someone owns a Ford to be true which do not entail the proposition that Nogot owns a Ford. Hence, the latter proposition is less indefinite than the former.

To disarm counterexamples like (E1)-(E3), I propose the following limitation on the justifying capability of evidence:

> (L)   For any contingent indefinite proposition p (in cases other than where a person S has justifying evidence for p but lacks justifying evidence concerning a way in which p is, or would be, true), evidence e justifies p for S only if e justifies each way in which p is, or would be, true.

Clearly, it is necessary to restrict (L) to cases other than where one has justifying evidence for an indefinite proposition p, but lacks justifying evidence concerning a way in which p is, or would be, true. For one can have justifying evidence for a disjunction, for instance, even if one lacks justifying evidence concerning a way in which this disjunction is, or would be, true. Consider, for example, a case where one has justifying evidence that either ticket t_1 or t_2 or... or t_{100} will win a single-winner 100-ticket lottery, but where one has no evidence concerning which ticket will win.

Furthermore, it is necessary to construe the somewhat ambiguous talk in (L) of "each way in which p is, or would be, true" as referring to each *actual* way in which p is, or would be, true. An actual way in which an existential generalization p, for instance, is, or would be, true entails only actual objects or their properties; it does not entail any merely possible object or its properties. If we do not restrict (L) to talk about such actual ways, then it evidently will entail a sort of justification-skepticism concerning existential generalizations.

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For it is doubtful that anyone ever has evidence justifying each *possible* way in which a contingent existential generalization is, or would be, true. But one can often have evidence justifying each actual way in which such a generalization is, or would be, true.

Let us determine now whether (L) disarms the above counterexamples.

II

In (E1) the relevant evidence is of course:

(i) Jones will get the job,

and

(ii) Jones has ten coins in his pocket.

According to (E1), when conjoined these propositions justify for Smith the following true proposition:

(iii) The person who will get the job has ten coins in his pocket.

(iii), of course, is simply a generalization on (i) and (ii). And, unlike (i), (iii) is indefinite insofar as it can be true many ways. But given (L), (iii) will not be justified for Smith on the basis of (i) and (ii). For (i) and (ii) do not provide Smith with justifying evidence for each way in which (iii) is, or would be, true. Specifically, (i) and (ii) do not provide Smith with justifying evidence for the proposition that Smith, who will get the job, has ten coins in his pocket. Consequently, (L) enables us to disarm (E1).

In counterexample (E2) the relevant evidence is the false proposition:

(i) Jones owns a Ford,

which, according to (E2), justifies the following true disjunction:

(ii) Either Jones owns a Ford or Brown is in Barcelona.

But given (L), (ii) will not be justified for Smith on the basis of (i). For, clearly, (i) does not provide Smith with justifying evidence for each way in which (ii) is, or would be, true. In particular, (i) does not provide Smith with justifying evidence for the proposition that Brown is in Barcelona. Hence, (L) enables us to undercut (E2).

(E3) is also readily disarmed by (L). In that example Smith's initial evidence is:

(e)   Smith's office-mate Mr. Nogot, whom Smith has always found to be reliable and honest, has told Smith that he, Nogot, owns a Ford.

According to (E3), Smith correctly deduces from (e), and thus is justified in believing, the following true generalization:

(i)   There is someone in Smith's office, whom Smith has always found to be reliable and honest, who has told Smith that he owns a Ford.

Further, on the basis of (i) Smith infers and, according to (E3), is justified in believing this true indefinite proposition:

(ii)   Someone in the office owns a Ford.

But given (L) we Should deny that (ii) is justified for Smith on the basis of (e) and (i). For (e) and (i) do not provide Smith with justifying evidence for each way in which (ii) is, or would be, true. Specifically, (e) and (i) do not provide Smith with justifying evidence for the proposition that Mr. Havit owns a Ford. Consequently, given (L), we can readily disarm (E3) as well as (E1) and (E2).

The rationale for (L) is straightforward. Note first that (L)

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enables us to deny that there are cases where a person S is justified in believing a contingent indefinite proposition p on the basis of evidence e, but where the way in which p is true is unlikely for S given e. Thus, (L) enables us to deny that there are cases where S is justified in believing that p on the basis of e, but where the way in which p is true is merely coincidental for S given e. In such cases, it seems, S is not justified in believing that p on the basis of e, but is justified in believing at most some less indefinite proposition on the basis of e.

The following example will clarify this latter point. Suppose that Smith's only relevant evidence is the following false proposition:

(1)   Mr. Nogot, who is Smith's office-mate, owns a Ford.

On the basis of (1) Smith infers:

(2)   Someone owns a Ford.

Let us suppose also that (2) is true, since Mr. Havit, Smith's other office-mate, owns a Ford, but that Smith is unaware that Havit owns a Ford. In this case, Smith does have justifying evidence concerning a way in which (2) would be true, *viz.*, the way described by (1). But Smith has justifying evidence for (2) only insofar as (1) is the way in which (2) would be true. Thus, it seems that (1) provides justifying evidence not for (2) in its unqualified form, but rather for the following less indefinite proposition:

(3)   Someone in particular, *viz.* Nogot, owns a Ford.

Given his evidence (1), Smith clearly will have justification for (3), since, given (1), the way in which (3) would be true will be neither coincidental nor unlikely. But it is doubtful that (1) can provide justifying evidence for any of the following ways in which (2) is true:

(4)   Someone in particular in Smith's office, *viz.* Havit, owns a Ford.

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(5)   Someone other than Nogot owns a Ford.

(6)   Someone or other in Smith's office (*i.e.*, either Nogot
       or Havit) owns a Ford.

For there is at least one way in which (4)-(6) would be true,
but which is merely coincidental, and thus unlikely, given (1).
This, of course, is the situation in which Havit is the only one
in Smith's office who owns a Ford. Clearly, (1) does not
make (4) likely to be true; hence, (1) does not provide jus-
tifying evidence for (4). And a similar argument clearly ap-
plies to the less definite proposition (5).

Likewise, it is doubtful that (1) provides justifying evidence
for (6). For (1) provides no reason whatsoever to believe what
(6) evidently means, *viz.*, that membership in Smith's office
is conducive to Ford ownership on the part of at least one
member of Smith's office. (1), of course, does make it likely
that (3), *i.e.*, that someone in particular in Smith's office, *viz.*
Nogot, owns a Ford. But (3) does not make probable the pro-
position that membership in Smith's office is conducive to
Ford ownership on the part of at least one member of Smith's
office. Thus, since the justification of (6) evidently requires
the justification of this latter proposition, it is doubtful that
(1) justifies (6). Note also in support of this claim that (4) is
a way in which (6) is true, but (4) is merely coincidental, and
thus unlikely, given (1). I submit, then, that by itself (1) jus-
tifies neither (6) nor (2).

Counterexamples (E1)-(E3) presuppose the following
principle concerning the justification of a contingent indefi-
nite proposition p: In cases other than where S has justifying
evidence for p but lacks justifying evidence concerning a way
in which p is, or would be, true, evidence e can justify p for S
even if e does not justify the way in which p is true. But this
principle is implausible insofar as it allows that p can be justi-
fied for S on the basis of e even if the way in which p is true
is not probable, but is merely coincidental, given e. In ac-
cordance with the foregoing considerations, it seems that in
such a case S is justified in believing, on the basis of e, at most

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some proposition less indefinite than p. Moreover, given (L) we can deny that an indefinite proposition is justified on the basis of e when the way in which that proposition is true is unlikely given e. Limitation (L), then, appears to be well-founded.

A corollary of (L) is that the following principle of deducibility for justification is false:

> (PDJ) For any proposition p, if S is justified in believing that p, and p logically entails a proposition q, and S deduces q from p and believes that q as a result of this deduction, then S is justified in believing that q.

This point may be illustrated by means of (E3). In that example Smith is justified in believing his initial evidence (e) —Smith's office-mate Mr. Nogot, whom Smith has always found to be reliable and honest, has told Smith that he, Nogot, owns a Ford. Now (e) of course logically entails (i)— There is someone in Smith's office, whom Smith has always found to be reliable and honest, who has told Smith that he owns a Ford. But (e) clearly does not provide Smith with justifying evidence for each way in which (i) is, or would be, true. Consequently, given (L), Smith is not justified in believing that (i) on the basis of (e), even though (e) logically entails (i), and Smith deduces (i) from (e) and believes (i) as a result of this deduction.

Any apparent implausibility of this implication of (L) results, I suspect, from an ambiguity in (i). (i), of course, might be construed as either:

> (a) There is someone in particular in Smith's office, _viz_. Nogot, whom Smith has always found to be reliable and honest, who has told Smith that he owns a Ford.

or:

> (b) There is someone or other (_i.e._, at least one person) in Smith's office, whom Smith has always found to

be reliable and honest, who has told Smith that he owns a Ford.

On construal (a), the way in which (i) is true will not be unlikely given (e), and thus, so far as (L) is concerned, (i) can be justified on the basis of (e). But on construal (a), (i) cannot, according to (L), justify (ii) —Someone in the office owns a Ford— since on that construal (i) does not make probable each way in which (ii) is, or would be, true. And this I take to be a plausible consequence of (L). On construal (a), furthermore, (i) can provide justifying evidence for the proposition that someone in particular in the office, *viz.* Nogot, owns a Ford; but this possibility will not give rise to a Gettier counterexample.

Note further that if (i) is construed as (b), then given (L), Smith will not have justification for (i) on the basis of (e). And this also seems to be a plausible consequence of (L). For so long as any of the ways in which (i) is, or would be, true is merely coincidental, and thus unlikely, given (e), it seems implausible to assume that (e) justifies (i) rather than only some less indefinite proposition. Consequently, although we may grant that (a) is justified on the basis of (e), we should deny that the same is true of (b). Further, since (e) logically entails (b) as well as (a), we should reject (PDJ). And this rejection of (PDJ), it should be stressed, is not an *ad hoc* move. It is an obvious corollary of the well-founded restriction (L).[4]

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[4] Irving Thalberg has also argued that justification is not transmissible through deduction; see his papers "Is Justification Transmissible Through Deduction?," *Philosophical Studies* 25 (1974), 347-56, and "In Defense of Justified True Belief," *Journal of Philosophy* 66 (1969), 794-803. But Thalberg does not explicitly rely on any principle equivalent to limitation (L). His basic strategy, as I understand it, is to undercut Gettier counterexamples by rejecting (PDJ). My strategy, in contrast, has been to show that Gettier counterexamples like (E1)-(E3) fail to satisfy a well-founded necessary condition for the justification of contingent indefinite propositions, *viz.* (L), and that a corollary of (L) is the denial of (PDJ). For some powerful objections to Thalberg's strategy see Robert Shope, *The Analysis of Knowing* (Princeton: Princeton University Press, 1983), pp. 30-33; and George Pappas and Marshall Swain, Introduction to *Essays on Knowledge and Justification*, eds. G. Pappas and M. Swain (Ithaca: Cornell University Press, 1978), pp. 17-18.

Most importantly, however, (L) enables us to undercut Gettier counterexamples like (E1)-(E3). Admittedly, I have not shown that (L) enables us to disarm the many other examples that have come to be labeled 'Gettier counterexamples'.[5] But I have argued that (L) is a well-founded limitation on the justification of indefinite propositions, and that by means of (L) we can disarm not only Gettier's original two counterexamples, but also a third counterexample that has proven to be particularly troublesome to the analysis of knowing.

[5] For instance, I have not tried to apply (L) to so-called Gettier examples concerning the social aspects of knowing; on these and other so-called Gettier examples see Shope, *The Analysis of Knowing*, pp. 33-34, *et passim*. Restriction (L), I should stress, purports to be relevant only to so-called Gettier examples concerning the justification of indefinite propositions.

RESUMEN

Los contraejemplos de Gettier al análisis tradicional del conocimiento como una creencia verdadera y justificada, muestran que hay creencias verdaderas justificadas en "evidencias", pero que no constituyen un conocimiento, porque, por ejemplo, alguien (digamos, Smith) puede tener la evidencia justificada y así creer que (1) *Jones* obtendrá el empleo y tiene 10 monedas en el bolsillo, sobre la base de la cual estará justificado en creer que (2) *la persona* que obtendrá el empleo tiene 10 monedas en el bolsillo, pero sin que *conozca*, no obstante, que (2) es verdadera y está justificada, debido a que desconoce que otra persona en particular (el propio Smith) por coincidencia obtiene el empleo y posee 10 monedas en el bolsillo. Moser argumenta en su artículo que si se considera la justificación de las proposiciones contingentes indefinidas, y la manera en que éstas son verdaderas, la deducibilidad de la justificación en los contraejemplos de Gettier es falsa, pues para una proposición *indefinida* como (2), la cual puede ser verdadera *de muchas maneras en particular*, no se puede tener evidencia justificada sobre la base de una evidencia justificada de una proposición "menos indefinida" como (1). Por otra parte, niega que una proposición indefinida como (2) pueda estar justificada sobre la base de la evidencia de (1) cuando la manera en que (2) es verdadera es por coincidencia e improbable (porque coincidentemente y de manera improbable sea Smith, y no Jones, quien obtenga el empleo y posea las 10 monedas).

Como corolario el autor declara que es falso el principio de deducibilidad de la justificación según el cual, si una persona S está justificada en creer que (1), y (1) implica lógicamente (2), y S deduce (2) de (1) y cree (2) como un resultado de esta deducción, entonces S está justificado en creer que (2); porque, aunque (1) implica lógicamente (2), la evidencia justificada de que (1) no proporciona a S evidencia justificada *para cada manera* en que (2) es, o sería, verdadera. Por tanto, S no está justificado en creer que (2) sobre la base de la evidencia de que (1).

[Wonfilio Trejo]