Williamson on Evidence Neutrality

CHRISTOPHER MICHAEL CLOOS

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ABSTRACT. This paper looks at Timothy Williamson's formulation of the thesis of Evidence Neutrality (EN). I motivate and argue for an upgraded version of EN by showing that changing one's assumption about the nature of evidence (i.e. fallibility vs. factivity) generates a different verdict on EN. Then, I show how Williamson's interpretation of EN is incomplete in light of a principle that guides his complete understanding of the nature of evidence. I reformulate EN to overcome deficiencies in Williamson's interpretation of EN, and, lastly, I use cases from philosophy and science to show that reformulated-EN promotes better practices in both domains while, at the same time, it avoids psychologizing evidence.

1. Introduction

In chapter 7 of *The Philosophy of Philosophy* Timothy Williamson argues against a thesis called *Evidence Neutrality (EN)*. According EN, it is uncontentiously decidable whether something counts as evidence prior to making a determination on the hypothesis at issue. Williamson formulates EN as follows:

> (EN) [W]hether a proposition constitutes evidence is in principle uncontentiously decidable, in the sense that a community of inquirers can always in principle achieve common knowledge as to whether any given proposition constitutes evidence for the inquiry.[1]

For Williamson EN tends to psychologize evidence. Non-psychological facts about the world (e.g., whether there are mountains) are contested by revisionary philosophers. So, in such cases, agreeing whether a proposition counts as evidence—thereby satisfying EN—requires inquirers to retreat to psychological facts about what they believe or what they are inclined to believe. This creates a gap that is difficult to bridge: arguing from a psychological premise (a belief) to a non-psychological conclusion (a fact). In addition, evidence for Williamson

[1] Williamson 2007: 210.

consists of true propositions or facts, not psychological propositions about the way things appear to someone when they are in a certain mental state.[2]

In this paper I will argue against Williamson's characterization of EN in several ways. First, I will show that the nature of evidence presupposed by Williamson generates his conclusion that philosophers have a misconception about what constitutes E, namely, that there is a neutral and uncontentious way to decide it. Next, I will argue that Williamson's interpretation of EN is incomplete in light of a principle underlying his theorizing on evidence. With this principle in play I will show that a reformulated version of EN does not necessarily psychologize evidence. Finally, I will argue that reformulated-EN better captures actual philosophical and scientific practice concerning evidence.

2. The Evidence Assumption

Williamson equates evidence with only *true* propositions or facts.[3] If all evidence equals true propositions and the truth-value of a proposition is contestable, then it is not uncontentiously decidable whether a proposition counts as evidence (i.e., whether a proposition is true). Williamson might interject that, "Although all evidence is true, not all truths are evidence."[4] This further clarifies Williamson's view of evidence: psychological truths epistemically accessible in isolation of the external world do not count as evidence, only truths with a veridical mind-world mapping count as evidence. Inquirers can mistake the extent of their evidence and offer as evidence that which is not evidence because the evidence does not represent a veridical mind-world mapping. This happens when the evidence offered turns out to be false because it is based on unrecognized mistakes or fallacies. For example, faulty scientific data, which is not directly recognizable to the scientist as such, is not evidence for the scientist's claim that the experiment proved a purported set of results. This just shows that the scientist is mistaken about the extent of her evidence—how far its truth extends or what it is capable of supporting. Whether something has the status of evidence can be

[2] This connects with Williamson 2000 (Ch. 4) when he argues against the idea that a subject's mental states are directly recognizable to the subject.

[3] Williamson 2007: 208-210. See Williamson 2000: 194-200 for a defense of the propositionality of evidence.

[4] This point is raised in Williamson 2007: 209.

controversial. The EN thesis suggests that inquirers must be able to, at least in principle, agree on what constitutes evidence prior to debating the hypothesis in question. However, it is not always uncontentiously decidable what counts as evidence. Thus, for Williamson, EN is false because satisfying EN requires retreat into psychological facts that do not constitute evidence proper.

The nature of evidence presupposed by Williamson generates his conclusion that EN is false. If evidence equals true propositions and the truth-value of a proposition is contested (potentially due to conflicting theoretical commitments), then it is not in principle uncontentiously decidable whether that proposition is evidence.[5] Put simply, EN is destined to fail based on Williamson's commitment to evidence only consisting of true propositions. Does relaxing Williamson's assumption about the nature of evidence generate a different verdict about EN?

A different assumption about the nature of evidence generates a different conclusion about EN. For the sake of argument, imagine one is a fallibilist about evidence. One way to formulate evidence fallibilism (EF) is as follows:

(EF) For subject S, it is possible for S's evidence to include *p* even if S's evidence for *p* does not entail the truth of *p*.

Given this assumption about the nature of evidence, revisionary philosophers who deny the intuitive claim that 'mountains exist' (*p*) could agree that *p* constitutes evidence for the hypothesis that 'there are mountains in Switzerland' (*h*), even if such philosophers think the evidence for *p* is based on false metaphysics and does not entail the truth of *p*.[6] Put simply, given EF, it is possible to preserve EN. Inquirers must uncontentiously agree whether *p* is the kind of proposition that, where it true, it could make true *h*, and making such a determination involves routine forms of counterfactual reasoning. For EF, agreement over the evidential status of *p* is not predicated on agreement over the actual truth-value of *p*. Inquirers must agree that *p* is relevant to the inquiry, and such agreement is consistent with having false propositions in one's evidence set.

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[5] For example, if theory T entails *p*, and theory T* entails ~*p*, then adherents of T and T* will not in principle be able to uncontentiously agree whether *p* counts as evidence.

[6] A similar line of argument could be run for a phenomenological conception of the nature of evidence. For an argument along these lines see Kelly 2008: 19-20.

As a result, it is possible satisfy the EN thesis without retreating into propositions concerning psychological facts.

3. A Complete Conception of Evidence

The previous section uncovered a choice Williamson made about the nature of evidence. Williamson uses 'fact' and 'true proposition' interchangeably. As he claims, "we may say that evidence consist only of facts."[7] There are, however, two incompatible ways of conceiving of facts: as *truth-makers* or *truth-bearers*.[8] On the *truth-maker* conception facts are what make true that which is true. On the *truth-bearer* conception facts simply are true propositions. During his discussion of EN, Williamson embraces facts (evidence) as *truth-bearers*, yet an EF-theorist may embrace facts as *truth-makers* when considering EN. This distinction is important because it brings out an imbalance between Williamson's complete understanding of the nature of evidence[9] and his understanding of evidence presented in connection with his discussion of EN.[10]

Williamson's complete understanding of the nature of evidence is found in *Knowledge and its Limits*. Discussing what it means for a subject to have evidence for a hypothesis Williamson puts forward the following evidence (EV) proposal:

> (EV) e is evidence for h for S if and only if S's evidence includes e and $P(h \mid e) > P(h)$.[11]

EV has two aspects: evidential status and evidential probability. Something counts as evidence for a hypothesis for a subject S when it is included in S's body of evidence. It is included in S's body of evidence only if it is a true proposition of the relevant sort. The evidence must have creditable standing. Further, the evidence needs to raise the probability of the hypothesis. That is, the probability of the hypothesis conditional on the evidence should be greater than the unconditional probability of the hypothesis. Probabilistically, the evidence should support the hypothesis. Connecting this to the distinction between two

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[7] Williamson 2007: 209.

[8] Mulligan and Correia 2007 (section 2.4).

[9] Cumulatively found in Williamson 2000: Ch. 9-10.

[10] Found in Williamson 2007: Ch. 7.

[11] Williamson 2000: 187.

ways of interpreting the notion of facts (evidence) the *evidential status* of evidence is aligned with the *truth-bearer* notion, and the *evidential probability* of evidence is aligned with the *truth-maker* notion. For *e* to be included in S's evidence set it must be a truth-bearer. For *e* to be evidence for *h* for S it must support the hypothesis by making it true.[12]

The EN thesis is framed in terms of agreement over the *evidential status* of the proposition. Whether a proposition constitutes evidence in a given inquiry is determined by whether the inquirers agree on the truth-value of the proposition. Williamson holds that the Gettier proposition is not uncontentiously decidable if one of the inquirers thinks it is simply a cultural prejudice and the other inquirer thinks it is true (i.e., that is shows knowledge is not equal to justified true belief). Why does Williamson leave out of his characterization of EN *evidential probability*? Whether evidence possesses "creditable standing" is more important for Williamson because:

> *e* may raise the probability of *h* in the sense that $P(h|e) > P(h)$ even if S knows that *e* is false or has no idea whether *e* is true; but then, for S, *e* would not be evidence for *h*.[13]

However, once the factive requirement on evidence is relaxed, then it is possible for one's evidence to contain false propositions.[14] Such propositions can raise the probability of *h* by bearing on the hypothesis at issue. False propositions can raise the probability or support the truth of the hypothesis without the propositions themselves needing to be true. The *truthmaker* role of evidence must be accounted for in a complete rendering of EN unless one runs the risk of begging the question against the thesis.

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[12] There are a couple of ways to understand the 'support for' relation. There could be a *relevance* relation that is explained in terms of explanatory power. That is, if a fact makes a proposition true, then the existence of the fact should (to some degree) explain the truth of the proposition. There could be a *logical* relation that is explained in terms of supervenience. To say that truth supervenes on facts is to say that there is no change in truth without a change in facts. I will use the *relevance* relation to explain the 'support for' relation because it is the common sense notion of what it means for something to make a proposition true.

[13] Williamson 2000: 187.

[14] Or, for one's true propositions to consist of things other than non-psychological facts, as in the phenomenological case.

To avoid begging the question against EN as a thesis concerning philosophical methodology Williamson cannot assume a factive account of evidence from the outset and ignore evidential probability. This is because if you change the account of evidence assumed the verdict on EN changes. Though Williamson defends the factive account of evidence at length, many of the inquirers he is arguing against may not share a similar account of the nature of evidence. When a community of philosophical inquirers hold conflicting accounts of the nature of evidence (i.e., factive vs. fallible) is it still possible for the inquirers to agree on what constitutes evidence for the inquiry?

4. Evidence Neutrality Reformulated

To motivate a reformulation of EN I introduce the notion of a *true but irrelevant* (TBI) proposition. Inquirers can agree over the truth-value of a piece of evidence but disagree over its relevance to the inquiry. Imagine Apple and Bill agree about the truth-value of the fact that there are 40 million Americans without health insurance (*e*). They agree this number is a good estimate of the actual number, they agree it was arrived at through reliable statistical methods, and so on. Imagine, however, Apple and Bill disagree over the relevance of *e* to the hypothesis that health care reform is necessary (*h*). For Apple, *e* indicates a need to overhaul a broken health care system. For Bill, *e* bears differently on *h*. For Bill a large percentage of the uninsured do not want health care and the fact that 40 million people are uninsured does not support the need for health care reform. To accommodate TBI in a dialectic EN is reformulated as follows:

> (EN′) Whether a proposition constitutes evidence for an inquiry is uncontentiously decidable given that a community of inquirers can always, in principle, agree whether that proposition is relevant to the hypothesis at issue.

EN′ requires inquirers to reach agreement concerning the evidence supporting the evidence. Prior to deciding whether health care reform is necessary it requires, for example, Bill to provide evidence how he arrived at the fact that "a large percentage of the uninsured do not want health care." EN′ holds that it is in principle possible to agree whether *e* supports *h* in reference to the evidence in support of *e*.

EN′ does not psychologize evidence. The methodological data in an evidence set that supports a proposition has a bearing on whether that proposition is relevant to a hypothesis.[15] This data need not consist of psychological facts, such as, I (e.g., Bill) believe a large number of the uninsured do not want health care. It might be based on a statistical measurement that is the result of empirically-sound methods. Such data explains how the evidence is known and whether that knowledge was attained through trustworthy means. EN′ does not necessarily psychologize evidence, but it does ask inquirers to agree whether (and to what degree) methodological evidence for *e* is consistent with *e* supporting *h*. The result is that inquirers do not need to agree over the truth-value of *e* in order to satisfy the neutrality requirement; they only need to agree how *e* bears on *h* in reference to the methodological content within the evidence set that supports *e*.

5. Cases from Philosophy and Science

In this section I will look at two cases—the Gettier case and the global warming case—to see if EN′ supports 'best practices' in philosophy and science.

Williamson uses the Gettier case to show that satisfying EN requires retreat into psychological claims. When there is dispute over the Gettier proposition (i.e., the Gettier subject lacks knowledge) the only way to reach agreement is by retreating to claims about beliefs. EN′ alters the focus of neutrality from truth-value to relevance or the degree to which evidence supports the hypothesis. Agreement centers on the methodological content underlying the evidence.

There are two methodological assumptions that control how one reasons about the Gettier case.[16] The first assumption is *justification fallibilism*. It states that one can be justified in believing *p* even when *p* is false. The second is *deduction of justification*. According to this idea justification tracks deduction (e.g., modus ponens holds when justification is attached to the propositions). These assumptions underlie reasoning about the Gettier case. EN′ asks inquirers to agree over the methodological support for the evidence (i.e., the Gettier proposition). One will not reach the Gettier proposition if the reasoning

[15] I owe the impetus for this idea to Jonathan Weinberg's discussion of philosophical evidence on the Arché Methodology Project Weblog (dated: 7/14/2009).
[16] I owe this point to Anand Vaidya.

assumptions are denied. Alternatively, if one endorses these assumptions, then it can be shown how the Gettier proposition is reached and why it is reasonable to believe the Gettier proposition supports the hypothesis that knowledge is not merely justified true belief. If, for example, someone claims the Gettier proposition is merely a cultural prejudice and it does not support denial of JTB theory, then under EN′ the inquirers need not retreat to psychological claims. Now debate can center on the methodological assumptions underlying the Gettier proposition and whether one endorses those assumptions. The Gettier-skeptic may now realize the Gettier proposition is not a mere cultural fabrication but a proposition derived from sound methodological principles. This facilitates agreement over the degree to which the evidence supports the hypothesis.

The next case I will explore is the global warming case. Imagine a scientist named Francis puts forward the following claims:

(*e*) Global warming is occurring.

(*h*) Global warming is caused by CO_2 emissions.

Now imagine another scientist named Craig agrees with Francis about *e* but does not agree that *e* supports *h*. Craig agrees that *e* is true but does not agree that it is relevant to *h*. For Craig global warming might just be the result of natural processes. Under the EN model evidence neutrality has been satisfied and Francis and Craig can debate the hypothesis. Under the EN′ model evidence neutrality has not been satisfied and Francis and Craig must agree over the nature of the evidence in terms of how it is supported and how it, in turn, supports the hypothesis. Why is the stronger agreement over evidence that EN′ imposes conducive to best practices in science?

EN allows for 'massaging' data to fit a hypothesis, whereas EN′ forces greater transparency about data as it relates to a given hypothesis. Scientists who agree over the truth-value of evidence (i.e., that the data is correct) may nonetheless disagree over what the evidence shows. Scientists often phrase and frame data in such a way as to get it to say what they want it to say. Instead of having a fixed hypothesis and seeing whether the data supports (or disconfirms) the hypothesis and accepting the results, often the hypothesis is changed so that it fits the data. EN allows for gerrymandering hypotheses. By contrast, EN′ keeps the target hypothesis fixed, and it asks scientists to agree over whether the

evidence supports the hypothesis based on the methodological assumptions underlying the evidence. This is a best practice in the global warming case because the disagreement over the hypothesis stems from assumptions about how global warming was statistically trended and how that data supports causation by anthropogenic factors. Though Francis and Craig agree global warming is occurring they may be using different, if not conflicting, methodologies in support of their evidence. Francis is likely to produce data in support of warming that shows a sharp spike in warming over the last one hundred years, whereas Craig is likely to produce data that shows a linear progression in warming. To satisfy EN′ Francis and Craig would need to agree over background assumptions about the degree of accuracy and the best type of model used to make climate projections. They would also need to agree over how *e* supports *h* by agreeing over the use of ice core samples to measure CO_2 levels. EN′ promotes best practices by focusing disagreement on the nature of the evidence and the methodological assumptions underlying the evidence.

6. Conclusion

In conclusion, pushing a debate back to its underlying assumptions is constructive. In the Gettier case inquirers need to debate the assumptions controlling reasoning about the Gettier scenario. Contention might arise from lack of awareness of controlling assumptions or if one can get an opponent to accept controlling assumptions, then one's opponent might accept the evidence without having to psychologize it. EN′ prescribes better philosophical practice. In the global warming case inquirers need to debate the methodological assumptions controlling production of evidence and to what degree that evidence is capable of supporting the hypothesis. EN′ recognizes an intricate link between support for evidence and support for hypothesis. In addition, EN′ prescribes better scientific practice by constraining scientists' ability to gerrymander hypotheses to fit data or their ability to frame data to fit hypotheses. It encourages transparency about support for evidence and agreement over how evidence bears on hypotheses. To these ends, EN′ is an upgrade over EN as formulated by Williamson.

References

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