



## Discussion

## Authentic Gettier cases: A reply to Starmans and Friedman

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## ABSTRACT

Do laypeople and philosophers differ in their attributions of knowledge? Starmans and Friedman maintain that laypeople differ from philosophers in taking 'authentic evidence' Gettier cases to be cases of knowledge. Their reply helpfully clarifies the distinction between 'authentic evidence' and 'apparent evidence'. Using their sharpened presentation of this distinction, we contend that the argument of our original paper still stands.

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## 1. Introduction

We would like to thank Starmans and Friedman (this issue) for their careful reading of our paper and for opening up a broader discussion regarding how some of the divergent findings that have emerged in this area might be reconciled. It is important to recognize that we all agree on a core point: both philosophers and laypeople take some Gettier cases to exemplify justified true belief without knowledge. Where we appear to differ is on the question of whether laypeople respond differently to a special subset of these cases. Starmans and Friedman maintain that 'authentic evidence' Gettier cases are seen as cases of knowledge by laypeople but not by philosophers, whereas our data do not support this assertion (Nagel, San Juan, & Mar, 2013). In their reply to our article, Starmans and Friedman raise three concerns: (1) we misconstrued their contrast between authentic and apparent evidence, (2) the authentic evidence cases we used were atypical of Gettier cases in general; and (3) our methods of questioning biased participants to deny knowledge. These three concerns are potentially quite damning and we are grateful

for the opportunity to address them here. On the first point, we appreciate the clarification provided by Starmans and Friedman on their intended contrast between 'apparent' and 'authentic' evidence. We had meant to be charitable in understanding the distinction as we did, and will explain a potential difficulty with their current explication of the distinction. We do, however, believe that our data apply both to the contrast as we originally understood it and to the contrast as it is now drawn. On the second point, we think that Starmans and Friedman are mistaken about what is typical, but will in any event show that the structure they consider typical was examined in our study with similar results. On the last point, we will present evidence that contradicts the hypothesis that our method of questioning biased participants to deny knowledge.

## 2. The contrast between apparent and authentic evidence

In their original article, Starmans and Friedman (2012) emphasized the idea that authentic evidence is unlike apparent evidence in being 'informative about the world'. What does it mean for evidence to be 'informative about the world'? On some weak conceptions of information, any process that results in the production of some true belief counts as informative (Foley, 2012). By this conception, even the person who gains a true belief from glancing at a

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clock that happens to be stopped at the right time would count as having an experience that is informative about the world. However, because the evidence in a Gettier case will always lead to some true belief (these cases are supposed to illustrate the possibility of justified true belief without knowledge), understanding ‘informative’ in this way would make all Gettier cases authentic evidence cases, by definition.

At the other end of the spectrum, ‘informative about the world’ could mean ‘yielding knowledge’ (of the relevant proposition). On this strong reading, the clock needs to be working, and any further conditions for knowledge must be met if our evidence is to count as authentic: authentic evidence for  $p$  must secure knowledge that  $p$  is the case. There were signs in [Starmans and Friedman \(2012\)](#) original article that they had a strong reading in mind: for example, they said that ‘in cases of apparent evidence, the agent is unaware of facts about the evidence that if known would prevent the agent from forming the belief’ (p. 280). Facts of this ‘belief-blocking’ kind are known in the philosophical literature as ‘defeaters’. Insisting that authentic evidence be free of *all* defeaters is a very strong condition indeed, because it would even rule out ordinary perception in ideal circumstances as long as some misleading contrary evidence could potentially be collected against it ([Lehrer & Paxson, 1969](#)). If we take this proposed ‘no-defeater’ condition at face value, having authentic evidence for the proposition  $p$  would require knowing that  $p$  on an especially stringent understanding of ‘knowledge’. The reason we were reluctant to attribute such a strong view of authentic evidence to [Starmans and Friedman](#) was that, in a general treatment of how people respond to Gettier cases, this strong understanding of ‘authentic evidence’ risks vacuity. If one aims to explain attributions of knowledge in terms of responses to authentic evidence, one needs to be careful that by ‘authentic evidence’ one does not just mean ‘evidence supporting an attribution of knowledge.’

Between the weak and strong readings of ‘informative’, we took a moderate path in understanding ‘informative’ as meaning ‘not leading to a false belief’. As [Starmans and Friedman](#) correctly point out in their reply, we identified their two apparent evidence cases as false lemma cases. To our eyes, the most striking feature of these two cases was that they involved an agent initially forming a false belief, from which the agent later happened to infer a truth. Because none of [Starmans and Friedman \(2012\)](#) five authentic evidence cases involved the initial formation of a false belief, it seemed appropriate to take ‘authentic evidence’ as evidence not leading to the initial formation of false belief.

[Starmans and Friedman](#) now clarify in their reply that by ‘informative about the world’ they meant something more than ‘not leading to false belief.’ We now see that their new understanding of ‘authentic evidence’ is indeed the strong one: they insist that evidence is authentic only if it can ‘guarantee that [a] belief is true when it is formed,’ or if a person who is made aware of ‘the true nature of the evidence’ would still form a belief on this evidence (p. 8). Assuming that it is rational belief formation that is meant, these conditions taken jointly are at least as strong as those

typically taken to apply to knowledge ([Reed, 2012](#)). In other words, by this new characterization, the criteria for authentic evidence already entail the production of knowledge itself. Because [Starmans and Friedman \(2012\)](#) take it to be distinctive of laypeople to view knowledge as justified true belief based on authentic evidence, we did not want to read this as a condition that would be satisfied trivially. If authentic evidence always yields knowledge, then philosophers and laypeople cannot disagree about whether beliefs based on authentic evidence are knowledge, at least for cases like the ‘Fake Barn’ case, where there is no separation between the receipt of evidence and the agent’s evaluated judgment of the key proposition, based on that evidence.

There is, however, a class of Gettier cases for which the strong understanding of ‘authentic evidence’ is non-trivial. These are cases involving a temporal separation between the moment of the agent’s initial evidence-based judgment and the moment when the agent reaches the judgment that participants are invited to evaluate. If authentic evidence entails knowledge, then the agent’s initial judgment must constitute knowledge, but this status can change over time. In some Gettier cases, an agent initially gains knowledge on the basis of some evidence (say by seeing some object placed in some location) and then the world changes in a way which destroys that knowledge (the object is removed in the agent’s absence), and then a further change restores the truth of the proposition originally believed (a replica is put in its place). All five of [Starmans and Friedman’s \(2012\)](#) authentic evidence stories have exactly this ‘knowledge loss’ format. On their current characterization of authentic evidence, [Starmans and Friedman’s](#) crucial claim is that laypeople, but not philosophers, attribute knowledge in these cases.

[Starmans and Friedman](#) correctly note in their reply that none of our own four authentic evidence cases had this ‘knowledge loss’ structure. However, the ‘American Car’ case ([Weinberg, Nichols, & Stich, 2001](#)), which was also included in our study, is a clear example of this type. In [Starmans and Friedman’s](#) terms, the fact that justifies Bob’s belief that Jill owns an American car (her longstanding possession of a Buick) is not the same as the fact that now makes his belief true (her recent acquisition of a Pontiac). This item was presented to all participants, inserted randomly amongst the 16 other scenarios they judged. Because all items were randomized in order, the results from any particular item cannot be dismissed as contaminated by order effects such as exhaustion. Replicating previous findings ([Cullen, 2010](#); [Weinberg et al., 2001](#)), participants in our study also demonstrated a tendency to deny knowledge on this question (Table 3). Given that this case has the structure that [Starmans and Friedman](#) identify as typical of authentic evidence cases, we would dispute [Starmans and Friedman’s](#) claim that we ‘do not provide evidence that laypeople deny knowledge in authentic evidence Gettier cases’ (p.8). Our findings coincide with recent evidence suggesting that people are more willing to deny knowledge when these cases highlight the separation between the moment when an agent’s initial knowledge is lost and the moment when a coincidence makes the agent’s belief true again ([Turri, 2013](#)).

Whether ‘authentic evidence’ is understood in the way we originally thought, or as Starmans and Friedman have now explained it, there is ample evidence that laypeople do respond to authentic evidence Gettier cases in the philosophically standard way. In fact, in their two studies in which authentic evidence Gettier cases were contrasted with control cases, participants reported knowledge more often in the control condition than in the Gettier condition (Starmans & Friedman, 2012; Experiment 1A: Cohen’s  $d = .39$ , Experiment 1B:  $d = .19$ ). These differences are somewhat small in magnitude, which means that sample size (and resulting statistical power) must be large in order to detect them if one relies on null-hypothesis statistical testing (Fraleay & Marks, 2007). That said, even small effects that are consistently observed may be meaningful; whether an effect is meaningful or not depends on the context and outcome (Meyer et al., 2001). In light of the available data, it does not appear that there is sufficient evidence to conclude that people are insensitive to how Gettier cases of this type differ from control cases.

On the broader relationship between authentic evidence and false lemmas, Starmans and Friedman in their reply agree that apparent evidence cases must involve false lemmas, but suggest that their authentic evidence cases also involve false lemmas. This point is controversial. When Peter (whose watch is stolen and replaced with another watch) judges after a brief absence that there is a watch on his table, he could be represented as reasoning either from the (now false) premise ‘my watch is now on that table’, or, alternatively from the *true* premises ‘I left my watch on that table recently’ and ‘such things generally stay where they are put.’ It is even possible that our attribution of one or another form of reasoning to him may be driven by our sense of whether he knows (Harman, 1970). This is a question for further research.

### 3. What is a ‘Gettier case’?

The two cases Gettier himself gives in his 1963 paper both involve the initial formation of a justified false belief from which a true proposition is then inferred. Although most philosophers now use the label ‘Gettier case’ to denote any scenario intended to illustrate the non-equivalence of justified true belief and knowledge, some use it more narrowly, to denote cases of the particular inference-from-false-belief type featured in Gettier’s original article (Weatherson, 2013, 68). Starmans and Friedman (2012) join us in using the label broadly: five of their seven Gettier cases start with an agent having ordinary perceptual knowledge rather than justified false belief. On the broad reading of what counts as a Gettier case, all that is essential to Gettier cases is that they are intended to show a disparity between justified true belief and knowledge.

Starmans and Friedman in their reply observe that our ‘authentic evidence’ cases involve causal connections between the true proposition believed by the agent and his reasons for believing it. These cases were developed

to show a disparity between justified true belief and knowledge not captured by causal accounts of knowledge (Goldman, 1976). We used a number of cases of this type exactly because it has been a live issue whether the classical analysis of knowledge as justified true belief can be rescued by adding a causal condition. Starmans and Friedman suggest that this pattern is atypical of Gettier cases. We disagree: such cases figure prominently in early surveys of the Gettier problem (e.g. Plantinga, 1993; Shope, 1983) and receive equal weight in the most recent major philosophical survey article of this topic (Steup & Ichikawa, 2012), relative to cases lacking a causal connection. They are also used as model Gettier cases in epistemic logic (Williamson, 2013). These cases have the core feature of Gettier cases—they aim to show a disparity between justified true belief and knowledge—and there is no clear reason to consider them atypical.

### 4. Biasing participants to deny knowledge?

Lastly, in their reply Starmans and Friedman raise the concern that our pattern of questioning may have biased participants towards denying knowledge. We consider this unlikely, not least because our results for the ‘American Car’ case are similar to those found by others who have used this same case but with simpler dichotomous response options. For example, Weinberg and colleagues (2001) found that 74% of their participants ( $N = 66$ ) failed to attribute knowledge when presented with the options of ‘really knows’ vs. ‘only believes’. Similarly, Cullen (2010) replicated this finding (71% knowledge denial) with a larger sample ( $N = 233$ ). Thus, response patterns in our study could not have been strictly artifacts of the task design. Further, if our method of questioning promoted greater denial of knowledge by encouraging participants to go back on their initial attributions, then one would have expected a greater proportion of denials in response to the second set of questions (i.e., Does agent know  $p$ ? vs. Does agent feel like they know  $p$ ?). Instead, participants were more likely to attribute knowledge following the second set of questions, suggesting that they were neither responding at random nor pragmatically swayed to question their initial response. It is also possible that by explicitly asking about states that ‘feel like knowledge but are not’ we encouraged participants who might have denied knowledge when faced with simpler options to hold out for this more subtle category in classifying Gettier cases. Because participants could anticipate that they would have the more subtle negative choice later (after responding to the first vignette), we cannot take their initial responses in general to indicate a strong attribution of knowledge.

There does not appear to be evidence that our participants were biased to deny knowledge, but Starmans and Friedman (this issue) are right to press us to explain why we structured the questions as we did. It would have been simpler to ask a question of the form ‘Does Agent know that  $p$ ?’ but we were concerned about sending a misleading signal by using questions of that form for scenarios in

which the key proposition was false. Questions of this form are typically used when the embedded proposition is true. The person who asks, 'Does Jane know that Bill was fired?' takes it to be true that Bill was fired. For this reason, our initial question used the neutral form 'Does Agent know whether or not *p*?'. Our follow-up questions asked participants who responded positively to choose between options of the form, 'Agent knows that *p*' and 'Agent feels like she knows that *p*, but doesn't actually know this.' We left these options for the second screen because we wanted participants to conduct an initial evaluation of the agent's mental state before the possibility of error was introduced. Part of our study was aimed at observing the differences between plainly described cases of ordinary judgment (a woman looks at a clock and makes a judgment about the time) and cases in which possibilities of error are made explicit (we mention that clocks are sometimes broken, even while stipulating that this clock is working). To explore this difference, we did not want our readers to be contaminated from the start by concerns that the agent might be mistaken. However, we acknowledge that there are many other ways of posing questions about mental states, and we believe that the best way to make progress is to pursue this research with a variety of different methods.

For the last 50 years, Gettier cases have been used in philosophy to illustrate the difference between knowledge and justified true belief. It may be true that some well-defined group of these cases would be evaluated differently by professional philosophers and by laypeople, but we have not yet found any clear evidence that this is the case. The interesting disparity between knowledge and

justified true belief seems to be detectable without any special training.

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