

TESTIMONIAL KNOWLEDGE: A UNIFIED ACCOUNT

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Consider this argument:

- (1) Testimonial knowledge is knowledge.
- (2) Knowledge is (at least) true belief held on a safe basis.
- (3) Hence, testimonial knowledge is (at least) true belief held on a safe basis.

When is a true belief held on a safe basis? A true belief is held on a safe basis you would not easily be mistaken. This is usually explained in terms of possible worlds. A true belief is held on a safe basis just in case in all nearby possible worlds, if one forms a belief on the same basis as in the actual world, then one forms a true belief.¹

The first premise of the argument, I assume, you are willing to grant. The second premise, I am fully aware, you may not.² Regardless, I'm going to argue by cases (eight altogether; some old, some new) that the conclusion—a *safe basis* account of testimonial knowledge—is better than two rivals—the *speaker's knowledge* and the *reliable assertion* accounts.

I. Three Conditions

If testimonial knowledge entails testimony-based belief (TBB, for short), then what is testimony-based belief? Here are three necessary conditions commonly placed on TBB in the literature:

- (1) *Distal Cause*: TBBs are beliefs distally caused by testimony. A TBB that P has someone's testimony that P—someone's assertive speech act that P—as a distal cause. "If the belief isn't at least caused

(or sustained) by someone's testimony that P, how could it be *testimony-based*?"

- (2) *Hearer's Representation*: the hearer must not simply be caused by the speaker's assertion to come to believe that P, the hearer must form the belief through a representation as of a speaker's assertion that P. A hearer's representation as of an assertion that P is a proximal cause of the hearer's belief.
- (3) *Epistemic Dependence*: when the hearer transitions to belief from the hearer's representation as of a speaker's assertion that P, the hearer relies on the information channel for the epistemic link between belief and truth for knowledge, not on his own background knowledge for the link (Audi 1997, Fricker 2006, Goldberg 2007). The more "second-hand" the belief is (the more the hearer relies on the channel), the more the belief is testimony-based. The more "first-hand" the belief is (the less the hearer relies on the channel), the less testimony-based (McMyler 2007).³

The first condition is supported by semantic intuitions about the meaning of "testimony-based belief". The second is compelling on its face. The third is intuitive: "testimonial" knowledge = "dependent" knowledge. The third is also standardly supported by examples that help illustrate what's meant. Here are three:

Soprano Voice. A woman sings in a soprano voice that she has a soprano voice. If James believes she has a soprano voice because he recognizes one when he hears one, then James's belief is not *testimony-based* even though testimony occasioned. (Lackey 1999, cf. Audi 1997)

Political Rally. If Andy is at a political rally and he has been counting speakers one after the other, then when the tenth speaker opens with "I am the tenth speaker to address you today" Andy's belief that she is the tenth person is not testimony-based. He does not believe her because she said so, but because he has been counting. (Sosa 1991)

Good Mood. Susan knows her patient Phillip is in a good mood when and only when the weather is sunny. When he comes in to her office in a clearly good mood and says what a sunny day it is today, Susan believes what he says because of his good mood, not because he said so. Her belief, like Andy's, isn't testimony-based. She's relying on her first-hand knowledge of Phillip's regular behavior. (Goldberg 2007)

So according to the consensus in the literature, a TBB that P (1) begins with a speaker's assertion that P; (2) turns to the hearer's representation as of a speaker's assertion that P; (3) that causes or sustains the belief that P through epistemic reliance. Testimonial knowledge that P is true TBB that P that enjoys the right link between belief and truth for knowledge.

II. Three Accounts

So what constitutes the right link for testimonial knowledge? Here are three accounts:

Speaker's Knowledge: A true TBB that P is knowledge that P iff the speaker (or someone in the chain of sources) knows that P.

Reliable Assertion: A true TBB that P is knowledge that P iff the speaker's assertion that P is a reliable indicator that P (it is safe or sensitive that P).⁴

Safe Basis: A true TBB that P is knowledge that P iff it is held on a safe basis.

The first account—the speaker's knowledge account—is so popular that it must form a piece of our folk epistemology. I bet it goes back to the Ancients. The idea is that when a hearer epistemically relies on knowledge from a speaker, the hearer acquires knowledge because the speaker “transmits” her knowledge that P to the hearer, and that the hearer can't acquire knowledge from the speaker (or the chain of sources) if the speaker doesn't have any. How could a hearer, relying on the information channel, acquire knowledge if there is no knowledge in the channel to transmit? Here's a small sample of quotes from recent authors:

For necessity: “Your telling me that P can only be said to provide me with knowledge if you know that P” (Ross 1986: 62). “If a recipient depends on interlocution for knowledge, the recipient's knowledge depends on the source's having knowledge as well” (Burge 1993: 486, cp. Burge 2013: 256). “It is necessary, if there is to be a successful process of testimonial transmission, that the speaker have knowledge to communicate” (Welbourne 1983: 302). “My testimony cannot give you testimonially grounded knowledge that P without my knowing that P” (Audi 1997: 410).

For sufficiency: “If S knows that P then . . . S can bring his listeners to know that P by telling them that P” (Coady 1992). “If S's belief is knowledge, then we may allow that title to H's belief too” (Fricker 1987: 57). “If one has acquired one's belief from others in the normal way, and if the others know the proposition, one acquires knowledge” (Burge 1993: 477).⁵

The second account—the reliable assertion account—is of more recent origin. The basic idea is that for a hearer to get knowledge it is not enough that the speaker has it. It has to *get* to the speaker. And how does it get to the speaker if not through the speaker's assertion? Somehow the “epistemic properties” that make the speaker's knowledge *knowledge* (that make the speaker's *belief* knowledge) must *get to the hearer*, and they get to the hearer,

if and when they do, because of the “epistemic properties” (the reliability) of the speaker’s *assertion*.

The idea behind the third—the safe basis account—is, as I’ve already suggested, that testimonial knowledge is knowledge, and knowledge is (at least) true belief on a safe basis, hence testimonial knowledge is (at least) true belief on a safe basis.

As stated so far these accounts are not in tension. They could even explain each other. Why, for instance, does a speaker’s knowledge get to a hearer? It must be because the speaker’s belief is held on a safe basis, which explains why the speaker’s assertion is safe, which explains why the hearer’s testimony-based belief is held on a safe basis. And why, for instance, does a hearer only learn from a speaker who knows? It must be because if the speaker does not know, that is because the speaker’s belief is not held on a safe basis, and so the speaker’s assertion is not a reliable indicator, and so the hearer’s belief is not held on a safe basis. Believing someone who knows, and so reliably asserts, is a safe basis. So maybe all three fit together.

It turns out, however, they don’t. In fact, the speaker’s knowledge and assertion accounts are overturned by counterexamples. At best they are “usually” or “generally” correct; they are not strictly speaking correct in every case. Only the safe basis account survives.

III. Four Cases

I begin with two counterexamples to the sufficiency condition of the speaker’s knowledge account (the speaker knows that P, but the hearer does not learn that P) that simultaneously support the necessity conditions of the reliable assertion and safe method accounts (the speaker’s assertion that P is not a reliable indicator that P and the hearer does not rely on a safe method that P):

Hospital. A father knows his son is fine today, even though his son suffers serious health problems. The father’s mother (the son’s grandmother) is sick in the hospital. When the father visits, he tells her that her grandson is fine. But if his son were sick (or even dead) he would not tell her to not upset her. Though the father knows his son his well, his mother does not learn from him, for he would easily tell her that her grandson is fine when he is not. Relying on his testimony, she would easily form a false belief. (Modified from Nozick 1981)

Interpretation: S knows that P but the hearer does not learn that P, for the speaker’s assertion that P is not reliable that P, and the hearer does not believe on a safe basis.

Astrologist. Mary sometimes believes that it is raining in her village because she pulls the drapes and looks outside and sometimes because she consults an

astrological table with the drapes closed. Today Mary looks outside and sees that it is raining. But when she takes your call and tells you that it is raining, you do not come to know that it is, for she would just as easily tell you that it is raining when it is not. Relying on her testimony, you would easily be mistaken. (Peacocke 1986)⁶

Just because the speaker knows that P and speaks from her knowledge, that does not mean a hearer gets what he needs for knowledge when relying on the information channel. In neither case does the hearer learn, and in neither case is the assertion reliable or the hearer's basis safe.

I now state two counterexamples to the necessity condition of the speaker's knowledge account (the speaker lacks knowledge that P but the hearer learns that P) that support the sufficiency conditions of the reliable assertion and safe methods accounts (for the speaker's assertion that P reliably indicates that P and the hearer relies on a safe method that P):

Fossil. A devout creationist teaches at a public school where she must teach a section on evolutionary theory. She does not believe a word of it, but is a dedicated and responsible teacher. She develops a near expert understanding based on deep reading of books and articles on evolutionary science. She even develops a deep understanding of fossils that parallels highly skilled scientifically trained expertise. On a fieldtrip she discovers a fossil that proves that ancient humans once lived in this area (itself a surprising discovery no one knew before). Though she does not believe it, when she tells this to her students, they believe her. Because of her commitment to teaching, her exposure to evolutionary science, and her mastery of fossils, she would not say what she did unless it were true. Her assertion is a reliable indicator. Relying on their teacher, the schoolchildren would not easily be mistaken. (Graham 2000b, 2006, cf. Lackey 1999)⁷

Consistent Liar: Due to a brain lesion, Bertha is compelled to lie consistently when she forms perceptual judgments about wild animals. If she sees a deer, she consistently says she saw a horse; if she sees a horse, she consistently says she saw a deer, and so on. Her parents became aware of this and took her to Dr. Jones, a famous neurosurgeon, to solve the problem.

During the surgery, Dr. Jones discovers he cannot safely remove the lesion. Instead he creates a new lesion that interferes between Bertha's perceptions and her beliefs. When she sees a deer, she will perceptually represent as a deer as before, but now she will believe she sees a horse, and so on. Dr. Jones kept the procedure entirely to himself.

Before the surgery Bertha was a reliable perceptual *believer* about wild animals but an unreliable *reporter* about wild animals. After the surgery Bertha is still a reliable *perceiver* of animals, but now she is an *unreliable believer* about wild animals. But because she is still a consistent and compulsive liar about wild animals, what she now *reports* about wild animals in her environment is nearly always *true*.

So when, after seeing a deer, she asserts to Henry that she saw a deer nearby on the trail (while believing she saw a horse, hence not knowing there was a

deer), Henry, depending on her her, comes to know that there is a deer nearby on the trail. Bertha's assertions are reliable indicators, and relying on Bertha, Henry would not easily be mistaken. (Lackey 2008)

Just because a speaker who asserts that P does not know that P, that does not mean that a hearer cannot get what he needs for testimonial knowledge when relying on the information channel. In neither case does the speaker know that P, but in both cases the speaker's assertion that P is a reliable indicator that P and the hearer's basis is safe.

Here's a summary of where we are so far:

	Hospital	Astrologist	Fossil	Liar
Does the Hearer Know?	NO	NO	YES	YES
Speaker's Knowledge Account	YES	YES	NO	NO
Reliable Assertion Account	NO	NO	YES	YES
Safe Method Account	NO	NO	YES	YES

These cases provide reason to abandon the speaker's knowledge account in favor of either the reliable indicator or the safe basis account.

IV. But That's Not Testimonial Knowledge!

Not so fast, says the defender of the speaker's knowledge account. Though there may be a problem with sufficiency, there's no problem with necessity; the counterexamples to necessity are bogus.

Here's the idea. There are two ways to acquire knowledge when a speaker asserts that P. One way is to epistemically depend on the speaker, as we've already discussed. Then if you acquire knowledge, your knowledge is second-hand, genuinely testimonial. Another way is to simply treat the speaker's assertion as a piece of evidence, as an event that may or may not be correlated with some other event, fact, or state of affairs, and then to rely on background knowledge of the correlation between the speaker's assertion as an event and some other event, fact, or state of affairs. If a speaker asserts that P and you treat the speaker's assertion "merely as a natural sign" and then infer, based on your background knowledge, that P is true, then you could come to know that P even if the speaker does not know that P, for the speaker does not believe that P, or possibly the speaker doesn't even have evidence for P. The speaker's knowledge does not matter, only the hearer's knowledge of the evidential connection between report and reality. In such a case, your testimony-occasioned knowledge is first-hand, not-second-hand, so not testimonial.

Armed with this distinction, the defender of the speaker's knowledge account responds:

Sure, the hearer in these cases acquires *knowledge*, but not *testimonial* knowledge. Testimonial knowledge is *dependent* knowledge; it is knowledge you get when *relying* on the informational channel. In the *Fossil* and *Liar* cases, the hearers acquire knowledge because they are relying on their own background knowledge of the connection between the speaker's report and reality (Audi 2006, Fricker 2006, among others).

The alleged counterexamples are bogus.

Though I agree with the distinction, I disagree that the cases *as described* are driven by background knowledge, as the rejoinder would have us believe. Sure, you can describe cases where the knowledge is first-hand, driven by background knowledge, if you wish. Certainly such cases are possible. But *Fossil* and *Liar* are not like that. The hearers in these cases depend on the information channel, not on background knowledge. The children are not like Andy in *Political Rally* or Susan in *Good Mood*. The children respond exactly the same way they would to a teacher who believes what she asserts. If children ever learn from dependence on their teachers, they do in *Fossil* (Graham 2000b, 2006). Turning to Henry, Henry does not respond to Bertha the way James responds in *Soprano*. Henry responds to Bertha exactly the same way he would if Bertha were to speak from knowledge. If Henry ever learns from dependence on an interlocutor, he does when he relies on Bertha. The rejoinder re-interprets the cases without warrant; they really are cases of testimonial knowledge.

V. Four More Cases

So far we have reason to abandon the speaker's knowledge account in favor of either the reliable assertion or safe basis accounts. I now turn to cases that undermine the reliable assertion account that simultaneously support the safe basis account.

Here are two that undermine the sufficiency condition of the reliable assertion account (the speaker's assertion reliably indicates that P) that simultaneously support the necessity condition of the safe method account (the hearer does not learn for the hearer does not believe that P on a safe basis):

A Lucky Choice: Upon arriving in Chicago for the first time, Pierre asks the closest passerby that he sees, Zoe, for directions to the Sears Tower and she reports that it is six blocks east. While Zoe knows this and would not say it unless it were true, she is the only reliable reporter in this part of the city, completely surrounded by incompetents and liars. Pierre's choice of Zoe—a

reliable reporter—is just a matter of luck. Believing Zoe, his justified true belief falls short of knowledge. Relying on a passerby in these circumstances, Pierre is easily misled. (Lackey 2008)

Assassination: The military of a small country hopes to stage a successful coup and threatens all of the reporters in the country to report that the President has been assassinated regardless of what happens to destabilize the government. All but one of the reporters gives in. Adler will report what really happens, no matter what. As it turns out, the assassination is successful and Adler is the only eyewitness. The other reporters, out of fear, do not even inquire and simply report that the President was assassinated. When Harman walks down the street and just happens to read Adler's newspaper among all the others on the stand, Harman does not learn (come to know) that the President was assassinated, for Harman would easily rely on the other newspapers. Adler knows, speaks from knowledge, and would not say that the President was assassinated unless he were, but Harman does not acquire what he needs for knowledge. (Harman 1973, Adler 1996, Graham 2000b)

Zoe would not assert P unless P; her assertion that P is a reliable indicator that P. But Pierre does not use a safe method. He would easily form a false belief *believing a passerby for directions* in these circumstances. Adler's assertion that P is a reliable indicator that P, but Harman does not use a safe method. *Reading a local newspaper* in these circumstances, in many nearby worlds he would form a false belief.⁸

Here are two counterexamples to the necessity condition of the reliable assertion account (the hearer learns that P but the speaker does not assert that P) that simultaneously support the sufficiency condition of the safe basis account (the hearer learns that P for the hearer believes that P on a safe basis):

Consistent Miscomprehension: Sally and Henrietta are identical adult twins, living almost entirely by themselves in the countryside. Due to a head injury, Sally consistently lies about her environment when she forms perceptual judgments about wild animals. If she sees a deer, she consistently says she saw a horse, just like Bertha.

On an annual visit to Sally and Henrietta Dr. Jones (also a famous neurosurgeon), Dr. Jones discovered the problem, and with all the best intentions decided to solve the problem. He persuades Henrietta to accompany Sally to the hospital, feigning an unrelated reason.

During the surgery, Dr. Jones investigates the lesion and discovers that he cannot safely remove it. Instead, knowing that Sally and Henrietta live alone, so that only Henrietta listens to Sally, surreptitiously puts Henrietta under anesthesia as well. He then creates a lesion that alters Henrietta's perception of Sally's utterances about wild animals and only Sally's utterances about wild animals. When Sally tells Henrietta *that she saw a deer*, Henrietta will represent her as asserting *that she saw a horse*. So when Sally sees a horse, believes it is a horse,

but lying tells Henrietta that she saw a deer, Henrietta will take her to assert that she saw a horse. Dr. Jones kept the procedure entirely to himself. Neither Sally, Henrietta nor their relatives, nor anyone else, knows about Sally's or Henrietta's lesions.

Before and after the surgery Sally is a reliable perceptual believer about wild animals but an unreliable reporter about wild animals. Before the surgery Henrietta accurately represented Sally's assertions about wild animals. If Henrietta had taken Sally's assertions at face value before the surgery, she would have formed reliably false beliefs. But now after the surgery, when Sally asserts that *there was a deer* on the hill, Henrietta takes her to assert that *there was a horse* on the hill. Taking her sister's assertions at face value, Henrietta now reliably forms true beliefs from her representations of her sister's testimony. When Sally sees a deer, believes it is deer, and asserts that it is a horse, Henrietta takes her to assert that she saw a deer, and comes to believe that there was a deer nearby. When she does, she would not easily be mistaken. She reliably forms true beliefs, relying on what she takes to be Sally's assertions.

Henrietta comes to know that P through a safe method: relying on her systematically inaccurate representations of Sally's assertions about wildlife will not easily lead her astray. In all nearby worlds where she takes Sally to assert that P, P is true. But Sally does not assert that P when Henrietta learns that P (Sally asserted something else instead).

Here is another counterexample to the reliable indicator account:

Color Inversion. Alan lives in Malibu Beach, California. Eddie is a good friend from college who lives in Chicago. Eddie regularly calls Alan on weekends and asks about the weather. "Blue skies for miles" Alan reports. But Alan is not an ordinary perceiver and reporter. Alan's color experience, color concepts, and color words are inverted. When he looks out the window from his Malibu Beach apartment, the sky looks yellow to him and he believes it is yellow. But when he reports the color, he says it is "blue" (meaning, and so asserting, that it is yellow). Alan has no idea that he's any different from anyone else. Alan does not know the skies are blue (he believes they are yellow). He does not mean that they are blue (he means they are yellow), and so does not state (assert) that they are blue. Eddie relies on (his representation of) Alan's assertion, and so comes to believe that the sky in Malibu is blue. Though Alan does not know that the skies are blue, they are, and Eddie would not take him to state they are blue unless they are. (Graham 2000b)

When Eddie misrepresents Alan's assertion, but relies on him nonetheless, Eddie gets what he needs for knowledge. Relying on his representations of Alan's assertions, Eddie would not easily be mistaken. But Eddie does not rely on an assertion that the sky is blue that reliably indicates that the sky is blue, for Alan did not assert that the sky is blue. The safe method account, unlike the reliable assertion account, says the right thing about this case.

Here's a summary of cases from this section:

	Lucky Choice	Assassination	Consistent Miscomprehension	Color Inversion
Does the Hearer Know?	NO	NO	YES	YES
Speaker's Knowledge Account	YES	YES	?	NO
Reliable Assertion Account	YES	YES	NO	NO
Safe Method Account	NO	NO	YES	YES

Only the safe basis account gets all the cases right. These cases provide reason to abandon both the speaker's knowledge and the reliable assertion accounts in favor of the safe basis account. There is a clear case-based warrant in favor of the safe basis account of testimonial knowledge, just as I set out to show.

VI. A Unified Account

Not so fast, says the defender of the reliable assertion account. Though there may be a problem with sufficiency, there's no problem with necessity; the counterexamples to necessity are bogus. For in *Consistent Miscomprehension* and *Color Inversion* though the hearer comes to know that P, the speaker did not in fact assert that P, and so the hearer's belief that P is not a testimony-based belief that P (for it does not meet the first, distal cause condition), and since testimonial knowledge that P is *testimony*-based belief that P, the hearers in these cases do not have *testimonial* knowledge that P. Though interesting in their own right, *Consistent Miscomprehension* and *Color Inversion* aren't counterexamples to the necessity condition of the reliable indicator account.

Though prima facie plausible, I don't think we should take this rejoinder very seriously. Instead we should broaden our understanding of testimony-based belief and testimonial knowledge to include these cases, for the core idea behind testimonial knowledge as a kind of knowledge is the third, epistemic reliance condition, and not the first, distal cause condition. In other words, we should drop the first distal cause condition as stated as a strictly necessary condition on testimonial knowledge. That's the right lesson from these cases (cf. Graham 2015).

Recall that the obvious support for the distal cause condition is semantic intuition. That is, 'testimony-based belief that P' really sounds like 'belief that P at least caused by testimony that P'. But when thinking about philosophical categories, broadening and narrowing of ordinary categories is standard practice. Ordinary meanings matter, but they don't always have the final say. So why not allow for a broadening? After all, it is not as if these cases are

not testimony-based in an obvious sense: the beliefs were, in fact, caused by speaker's testimony, even if not testimony that P, and involve the exact same kind of psychological processing and reliance in typical cases that do meet the first condition.

And wouldn't we call their knowledge testimonial knowledge? Let me paraphrase and repurpose a passage from Lackey to make this point (2008: 18). Henrietta and Eddie acquire their knowledge through exercising their capacity to represent (both accurately and inaccurately) assertive speech acts from others. Then when "someone asks you what the epistemic source of [their] knowledge is, isn't the natural answer . . . testimony? For since [Henrietta and Eddie did not acquire their knowledge] from sense perception, memory, reason, introspection, or combinations thereof and, moreover, since [Henrietta and Eddie] acquired [their] knowledge from [representing assertive speech acts], the intuitive conditions to draw is that the source of [their] knowledge is testimony". Wouldn't we say Henrietta and Eddie acquire testimonial knowledge when they rely on their respective interlocutors?

Since the core idea behind testimonial belief and testimonial knowledge is knowledge through epistemic reliance on the information channel and not on background belief, we should broaden our understanding of testimonial knowledge that P to include cases of knowledge through epistemic reliance when the distal cause isn't necessarily testimony that P.⁹ To deny this would force us to categorize cases where the first distal cause condition is met as "genuinely" testimonial knowledge and cases like *Consistent Miscomprehension* and *Color Inversion* as falling in some other category of knowledge, as of yet unnamed. We can carve up categories as finely as we please, but why in this case? Why insist that we've got two different categories here instead of one?

To paraphrase and repurpose another passage from Lackey (2008: 101–2), the safe basis account (as we are understanding it now as dropping the first distal cause condition on testimony-based belief and so on testimonial knowledge) provides a *unified account* of all the knowledge that is acquired through representation as of a speaker's assertion and epistemic reliance on the channel, one that captures knowledge in ordinary cases where the speaker knows that P, asserts that P and the hearer learns that P, and unusual cases like the *Fossil Case*, *Consistent Liar*, *Consistent Miscomprehension* and *Color Inversion*. Indeed, the safe method account has the resources to explain "transmission" in the kinds of cases the speaker's knowledge and reliable assertion accounts are "interested in. So what would a theory of the narrower category add?" The safe basis account, suitably broadened, covers all the cases. Thus, "contrary to nearly every view in the current epistemological literature, we can conclude that hearers" learn from relying on a safe method when forming beliefs through epistemic reliance, not from the "beliefs" of speakers (as the speaker's knowledge account would have us believe) or even from their "words" (as a reliable assertion account would have us believe).

VII. Conclusion

The speaker's knowledge account is *prima facie* compelling. I get it. As I said, it must be a part of our folk epistemology. But so too the justified true belief account of knowledge is *prima facie* compelling. But it, like many other pieces of folk philosophy, are at best approximations refuted by counter-examples unearthed through the process of philosophical excavation. And so we shouldn't be surprised if a little philosophical detective work uncovers counter-examples to the speaker's knowledge account. Indeed, why should folk epistemology be expected to cover all of the possible cases? The reliable assertion account is then a step in the right direction, but it too runs into trouble. Examples move our thinking from the speaker's knowledge account towards the reliable assertion account and then on finally to the safe basis account.¹⁰

Notes

1. This does not mean that one forms the very same belief as in the actual world. A true belief that P on a safe basis means that one would not easily be mistaken when forming a belief on that basis; it does not mean that one forms the same belief on that basis in all nearby worlds. The standard example to illustrate this point involves flipping a coin to reach a mathematical conclusion. If you believe $14 + 27 = 41$ because you flipped a coin, then though the belief (the proposition believed) is true in all nearby worlds (because true in all worlds), you did not form your belief on a safe basis. In a nearby world when you form a belief on the same basis (flipping a coin) you end up with a false belief instead. So in believing that $14 + 27 = 41$ on a coin flip, you would easily be mistaken (Pritchard 2014, 2015).
2. The safety theory of knowledge comes in "robust" and "moderate" forms. On the robust version, true belief on a safe basis is necessary and sufficient for knowledge. On the moderate version, true belief on a safe basis *due to a cognitive ability* is necessary and sufficient. I take no stand here.

Advocates of safety theories of knowledge include Luper-Foy (1984), Luper (2003), Pritchard (2005, 2012, 2014, 2015), Sainsbury (1997), Sosa (1999), Williamson (2000). Critics of safety include Neta and Rohrbach (2004), Comesaña (2005), Sosa (2007), and Kelp (2009, 2016). The debate, I realize, is ongoing. And since some of the counterexamples themselves involve testimony, my job probably isn't done when this paper is done (I suppose that should come as no surprise), though I am happy to have others do some of the heavy lifting.

Advocates of sensitivity as opposed to safety include Dretske (1981), Nozick (1981), Roush (2005), Becker (2007).

The nature of testimonial warrant (justification) is a complex topic that I have addressed at length in other places (Graham 2006a, 2006b, 2010, 2012, forthcoming-a, forthcoming-b). I do not mean to ignore the importance of warrant (justification) in a complete accounting for the epistemology of testimony-based belief, I just don't intend to address it in this essay.

3. This point receives more attention in the literature on moral testimony. See Foley (2001), Gibbard (1990), Hills (2009), McGrath (2011), and Nickel (2001).
4. If anyone advances this theory, Jennifer Lackey does (cf. Lackey 1999, 2008). See also Goldberg (2001, 2005, 2007). Lackey says we learn from speaker's "words" (their speech acts, from what they say) and not their "beliefs" (their state of mind behind their words and whether their beliefs amount to knowledge). On the other hand, Lackey adds "environmental" conditions that seem to entail that a reliable assertion that P (in her sense) is not always sufficient, which suggests that she may be committed to a version of the safe basis account. I leave this issue as an exercise for the scholar. Safety and sensitivity differ, but for present purposes the choice does not matter. For simplicity I'll adhere to safety when expounding the reliable assertion account.
5. I see views that say hearer's acquire testimonial knowledge that P through "extended" reliance on the speaker's reasons (or rationality) to believe P as instances of the speaker's knowledge view, where the speaker's reasons (or rationality) that provide the link between belief and truth required for knowledge in the speaker's case in turn provide the link in the hearer's case. See Owens (2002) and Faulkner (2011). Compare also Burge (1993). I have discussed Burge on this point in Graham (2000a).
6. For discussion of additional cases along these lines see Graham (2000b) and Lackey (2008).
7. I offered this in Graham (2000b: 377) and then discussed it further in Graham (2006b: 112). See also Carter and Nickel (2014). I credited Lackey for her *Schoolteacher* case (Graham 2000: 390, n. 18). Lackey, to my knowledge, has not discussed *Fossil*. Audi (2003: 15) correctly attributes *Fossil* to Graham (2000b), but then later misattributes it to Lackey (Audi 2011: 169). Faulkner ignores *Fossil*, assimilating it to *Schoolteacher* (Faulkner 2011: 61) and ignoring the extended discussion in Graham (2006b). See Burge (2013: 256–8) for illuminating discussion of related issues.
8. For the possibility of a different reading of the case where Harman does come to know by reading Adler's report, see Graham (2000b).
9. Sandy Goldberg thinks there can't be testimonial *knowledge* that P from a speaker who does not assert that P:

Since testimonial knowledge involves the hearer's epistemic dependence on the speaker's testimony, the hearer must recover how the speaker is representing the world in that testimony. After all, the hearer is relying on the speaker's reliability with respect to the world's being as she (the speaker) has represented it in her testimony. So insofar as the hearer aims to acquire knowledge of how the world is through that testimony, he (the hearer) must recover how that testimony has represented the world to be. And this, of course, is another way of saying that the hearer must have understood the testimony. (Goldberg 2007: 42, italics added)

Goldberg is effectively providing a gloss on what it means for a hearer to epistemically rely on the information channel when forming a testimony-based belief that P: it is to presume that the speaker's assertion that P is reliable that P. But that's just one possible gloss. Another from Fricker (2006) is to believe that the speaker would not assert that P unless P. These are just glosses or theories of what is psychologically involved when one epistemically depends

on the information channel. What makes these glosses obligatory? Why can't a hearer acquire what she needs for knowledge that P through epistemic reliance even when the speaker doesn't assert that P? *Color Inversion* and *Consistent Miscomprehension* are both cases where a hearer epistemically relies on the information channel and acquires testimonial knowledge that P even though the speaker did not assert that P. Henrietta is not strictly speaking relying on Bertha's assertion that P (for Bertha does not assert that P); she is relying on the information channel. Eddie is not strictly speaking relying on Alan's reliable belief that P or assertion that P (for Alan neither believes nor asserts that P); he is relying on the information channel. Henrietta and Alan both get what they need for knowledge through their epistemic dependence on the information channel. We need broader glosses than the ones imagined by Goldberg and Fricker.

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