

Testimony as a Social Foundation of Knowledge

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Testimony is the mainstay of human communication and essential for the spread of knowledge. But testimony may also spread error. Under what conditions does it yield knowledge in the person addressed? Must the recipient *trust* the attester? And does the attester have to *know* what is affirmed? A related question is what is required for the recipient to be *justified* in believing testimony. Is testimony-based justification acquired in the same way as testimony-based knowledge? This paper addresses these and other questions. It offers a theory of the role of testimony in producing knowledge and justification, a sketch of a conception of knowledge that supports this theory, a brief account of how trust of others can be squared with critical habits of mind, and an outline of some important standards for intellectual responsibility in giving and receiving testimony.

Much of human experience is occupied with speaking or listening to others, and in life as we know it we could not have much knowledge, if indeed we could know anything at all, without relying on what others tell us. It is no accident that I speak generally of what others tell us. Testimony must not be studied only in the context of hearings and courtroom cases. Far from it: we may in fact be less accurate—and certainly less informative—when we are trying to be exact or to say only what we can justify with evidence. How, then, should we conceive testimony? I will first sketch a conception of testimony; but my main concern is with how testimony yields knowledge and justification.

1. Testimony as a Source of Knowledge and Belief

To give testimony that *p*, to *attest* to it, in my terminology, is—in an assertive as opposed to a sarcastic or theatrical way—to say that *p*. Saying includes, in its broadest use, ostensive saying, for example pointing at someone and uttering ‘Liar!’ or even just pointing at someone upon being asked ‘Whom did you call a liar?’ There is also indirect saying, for

instance the modus-ponential kind illustrated by asserting something of the form of ‘p, and if p then q’ and so, in effect, saying that q.¹ All of these illustrate *affirmational*, as opposed to merely *phonetic*, saying. They also indicate the looseness of ‘said that’, as normally used. The notion of testimony, as understood in careful philosophical usage (my point of departure), is tighter than the notion of (propositional) saying, though it entails a kind of saying. I take testimony to be, roughly, direct affirmational saying. Let me develop this conception.

One way to bring out what constitutes testimony is to distinguish correct answers to ordinary questions of the form of

‘Did S say that p?’

from correct answers to ordinary questions of the form of

‘Was it p that S said?’

What is indirectly said, as in uttering ‘Liar!’, may be correctly cited in answering the first, broad question; but only what is directly said—what counts as testimony strictly speaking—may be correctly cited in answering the second, narrow question (where both questions are understood to concern something we might call a single affirmational act or symbolic representation thereof). If I say something of the form of ‘If q, then p, and q is the case’, then although I have loosely speaking said that p, it is not p *that I have said*, and p is not *what I said*. In the latter cases, there is either an implicit contrast between p and some other proposition, or at least a *specification* of what I said, as where I specify this to correct misunderstanding. With ‘Did S say that p?’ the question is simply whether S said that p, and there is no implied contrast. When p constitutes an unambiguous ellipsis, as where ‘Liar!’ clearly stands for ‘You’re a liar’, we may designate what was said by using the expanded formulation. (Other subtleties, e.g. concerning translations, cannot be pursued here, but the basic contrast is clear enough for our purposes.)

The term ‘saying’ covers both attesting to *p*—giving testimony, as I use ‘testimony’—and implying that *p*, as with the modus-ponens case. It may even apply to simply uttering something, which is possible where nothing is asserted. Uttering can be merely *phonetic saying*, as in mimicking someone. Uttering is possible even for a parrot. Epistemology concerns (among other things) knowing, and justified believing,

¹ The suggested broad notion of testimony seems to be the one many use; see, e.g., Duncan Pritchard, “The Epistemology of Testimony,” *Philosophical Issues* 14 (2004), 326–48 (esp. 237).

propositions. It is appropriate, then, that the epistemology of testimony focus on testimony *that*, where what follows ‘that’ expresses a proposition. Testimony is a major kind of saying, but not all saying is testimony. We shall soon see how this distinction is epistemologically important.

Testimony is normally social in having a recipient as well as an attester. But we might allow, as a limiting case, solitary testimony, as with what one writes in a diary. Even that kind of attestation is implicitly social. It is at worst an idealization to conceive testimony as social. We ourselves are hearers of even our silent affirmations; our later selves are a potential audience for earlier entries in a diary.

Testimony as both foundational and transmissional

If testimony is fruitfully conceived as I propose—as a social foundation of knowledge—something must be said about how it is foundational. The idea, in outline, is that our knowledge can be based, properly and non-inferentially, on what others tell us (in the narrow sense of ‘tell’ in which telling someone that *p* is attesting to *p*). I can know that *p* on the basis of your telling me that *p*. When I know it in this way, I believe it *because* you tell me, where ‘because’ indicates a causal sufficiency relation (the relation need not be explicated here, but wayward chains, e.g., must be ruled out). Notice, however, that someone who doubts *p* can challenge my assertion by asking how the attester knows that *p*. Underlying this challenge is the assumption, widely though not universally shared by writers on testimony,² that if you don’t know that *p*, then I can’t come to know it on the basis of your testimony that *p*. Your testimony can, then, be foundational for my knowledge that *p*, but it is of course not foundational for your knowledge that *p*.

Suppose it is true that the attester’s knowing that *p* is a necessary condition for testimony-based knowledge that *p* in the recipient. Then it is natural to call testimony a transmissional source of knowledge,

² Peter Graham and Jennifer Lackey have, for different reasons, argued for exceptions to the requirement that the recipient acquires testimony-based knowledge that *p* only if the attester knows that *p*. See, e.g., his “Conveying Information,” *Synthese* 123 (2000), 365–392, and her “Learning from Words,” *Philosophy and Phenomenological Research* 73 (2007), 767–101. I have replied to some of their arguments in “Testimony, Credulity, and Veracity,” in Jennifer Lackey and Ernest Sosa, eds., *The Epistemology of Testimony* (Oxford: Oxford University Press, 2006), 25–49. A more recent attack on the requirement, with criticism of my response to Lackey, is provided by Graham in “Can Testimony Generate Knowledge?” *Philosophica* 78 (2006) (appearing in 2009), 105–127. I have not defended the requirement in response to this paper or to Lackey’s extensive response to my comments in Lackey and Sosa, in her *Learning from Words: Testimony as a Source of Knowledge* (Oxford: Oxford University Press, 2008), 77–79; but even if the requirement must be qualified, the approach to knowledge proposed here and applied to testimony will sustain the main points I make about testimony-based knowledge and justification.

rather than, like perception, a generative source. Testimony-based knowledge is transmitted only when the testimony expresses the attester's knowledge to begin with; perception can produce knowledge from scratch. If, however, testimony is transmissional rather than generative, how can it be a foundation of knowledge? The answer is that some propositions are known non-inferentially, and in *that* sense foundationally, on the basis of testimony rather than on the basis of other knowledge or belief or on the basis of a premise yielded by a deliverance from any direct source of knowledge.

It might seem, however, that knowledge based on testimony is really based on the attester's knowledge. But this is not entailed by its *dependence* on that knowledge. It seems more plausible to maintain that, although I know that *p* on the basis of your testimony *only if* you know that *p*, and I *believe* that *p because* you told me that *p*, your knowing that *p* is no more the (epistemic) basis of my knowledge than copper wire is the basis of electric current flowing through it to a light bulb. You are my source of information, but your knowledge is not the ground of mine or my evidence for *p*. It is not because you know that I do; it is because you tell me (given that you know). Your knowledge that *p* is required for successful transmission, but my knowledge is not based on your knowledge, if this entails more than its appropriately *depending* on it. By contrast, normally, when I know that *p* inferentially on the basis of my knowing premises that establish it, say that *q* and that *r*, then my knowledge of my premises is the basis of my knowledge of my conclusion and is my ground for believing *p*. It is an expression of my evidence, in one sense of 'evidence', for *p*. The basis of inferential knowledge is in a way internal, being one's own cognition containing adequately supportive premises; but for all that, inferential knowledge, being mediated by cognitions rather than produced non-inferentially by a source of knowledge, is less direct than testimony-based knowledge. In both cases, however, my knowledge is apparently dependent on other knowledge.

The non-inferentiality of testimony-based beliefs and knowledge

One might object that when we know something on the basis of someone's testimony, it is by *inferring* it, perhaps "tacitly," from, say, the assumption that the person wouldn't be saying it without knowing it, or the assumption that the person is trustworthy.³ I grant that for most

³ Cf. Anna-Sara Malmgren, "Is There a Priori Knowledge by Testimony?", *Philosophical Review* 115, 2 (2006), 199–241. She takes the most plausible view to be that "[T]he recipient of testimony is seen as making an inference to the best explanation of why her source—say John—said that *p*: she infers that *p* in part because he believes that *p*, and she infers that John believes that *p* in part because *p* is the case" (230).

people, if you *ask* if they assume this regarding people whose testimony they believe, they will tend to assent. But it does not follow that they believe it or “premise it” in each case in which they gain testimony-based knowledge, much less that their testimony-based knowledge is really inferential.⁴

One also might object that I rely “on a fairly narrow notion of inference, on which a belief counts as being based on inference only if it is consciously drawn from premises that are explicitly noted as premises or evidence.”⁵ That notion *is* too narrow; a belief can be inferential, in the epistemic sense that it is *based on* another belief, even if the person does not episodically infer the propositional object of the former from that of the latter, say by explicitly reasoning from the one to the other. My point here is that testimony-based beliefs—though they may be *influenced* by other beliefs—are not premise-dependent. In that way, they are non-inferential and so, when they are justified or constitute knowledge, they are not *epistemically* based on other beliefs.⁶

A more moderate inferentialism would be selective. It might apply in normal cases only to the *initial* attestation(s) one receives from a person. Once the recipient concludes that the attester is credible, the information-receiving door is opened. Not just anything will fit through, but not every would-be entrant needs scrutiny. This moderate position is more plausible than the constant inference view, but neither is needed to account even for intellectually cautious recipients, and neither reflects common experience. Indeed, tiny children acquire testimony-based knowledge when they believe what their parents tell them (from parental knowledge of it), even before the children have enough experience and sophistication to acquire justification for taking their parents (or what the parents tell them) to be credible. This is not to say that the inferentialist view is obviously false. But one way to see its implausibility is to consider children’s acquiring knowledge on the basis of

⁴ It is essential to distinguish between dispositional beliefs and dispositions to believe; here I would have the latter but not the former. A development and defense of this distinction is provided by my “Dispositional Beliefs and Dispositions to Believe,” *Nous* 28, 4 (1994), 419–434.

⁵ This objection was proposed by Pekka Vyrynen in commenting (at the 2009 APA Pacific Division) on an early version of my “Moral Perception and Moral Knowledge,” *Proceedings of the Aristotelian Society Supplementary Volume* 84 (2010), 79–97.

⁶ Granted, if I *disbelieved* that the speaker knows that *p*, I would tend not to believe *p* on the basis of the testimony; this may imply that we (normal adults) in some sense *presuppose* (in ordinary contexts) that the attester knows that *p*. It does not imply that we believe this. Cf. Elizabeth Fricker’s view, in “Second-Hand Knowledge,” that the recipient is normatively committed to the attester’s knowing (*Philosophy and Phenomenal Research* 73, 3 (2006), 592–618).

testimony *before* they develop the conceptual resources to make the credibility assumptions the inferentialist posits.

If, as I hold, testimony-based knowledge is non-inferential, then it is in a sense basic: it constitutes knowledge not based on other knowledge or indeed even on justifiably believed premises. If this is correct, we may consider testimony a source of basic knowledge. A source of basic knowledge, however, need not be a *basic source of knowledge*: roughly, one that yields knowledge without depending on some other source to do so. Perception, by contrast, is a basic source; and testimony-based knowledge depends on the recipient's in some way perceiving the testimony. Testimony, then, is a dependent source of knowledge. We could say that it is not an ultimate source, and is in that sense not "terminal." Testimony may be the only source of basic knowledge that is *not* also a basic source of knowledge or at least of justification. The latter sources include perception, consciousness, memory, and reason (which includes intuition and reflection regarding p).⁷

In at least one further respect, testimony is special as a source of knowledge. It is both semantic and conceptual. Again, it contrasts with perception. Seeing an oak tree is possible for animals lacking semantic and even conceptual understanding. One might miss this point if one thinks that "seeing is believing." If simply seeing an oak entailed believing that one sees an oak, then, since believing such a proposition entails having the concept of an oak, one could make a case that perception is conceptual—and that at least lower animals do not see in the sense in which we do. On my view, perception is unlike testimony in not being necessarily semantic or even conceptual. The semantic character of testimony is epistemologically significant. It implies that, without understanding the meaning of the symbols in which it is given, one does not *receive* testimony, as opposed to simply witnessing it or merely hearing it as a phonetic phenomenon.⁸ It also implies that if (apart from minor misinterpretation) one misunderstands the symbols in which testimony that p is given, one does not receive testimony that p, even if, through partial comprehension, one receives testimony regarding the relevant subject.

⁷ This point seems consistent with Sanford Goldberg's case for the view that "Testimonial knowledge is an epistemically unique kind." See "Reductionism and the Distinctiveness of Testimonial Knowledge," in Lackey and Sosa, 127–144 (127).

⁸ Symbols need not be words; and since testimony can be given by such things as conventional gestures, we must also understand saying as not necessarily verbal. We might also allow that when it is obvious that speaker meaning diverges from sentence meaning—where the former is p and the latter q—it might be appropriate to hold that S said that p though S uttered that q. I prefer in such cases to say S said that q but meant that p; but in any case, the testimony, as *what it is* that S said, is q.

Testimony and the will

The relation of testimony to the will is also different from that of perception to the will. Normally, people can give testimony at will and can, often at will, give lying testimony, in which case their testimony that *p* is not a basis of the recipient's knowing that *p*. The normal adult recipient can also withhold *p*—for many (though not all) propositions (some are compellingly obvious). By contrast, we cannot perceive at will; nor can we at will create or eliminate the kinds of sensory impressions entailed by perceiving something, nor at will falsify a sensory deliverance, as we can at will make a false attestation.

As recipients of testimony, we can sometimes withhold belief-formation even when we are considering whether *p* and feel strongly inclined believe it. Even some highly plausible testimony that *p* does not preclude the recipient's withholding *p* at will. By contrast, suppose I see a green tree. With a clear sensory impression of leafy green before me, I cannot consider whether it looks to me as if there is something green there and (at will) withhold belief that this is so. Testimony, then, has a *double-dependence* on the will—on the attester's and on the recipient's—of a kind that does not apply to perception.

2. Testimony-Based Knowledge

It will be evident that I have set aside skepticism and assumed that we know a great deal and that we can acquire much knowledge from others. By and large, if you know that *p* and tell me that *p*, then so long as there is no reason for me to doubt you, I acquire testimony-based knowledge that *p* simply by believing *p* on the basis of your testimony. How might we explain this innocent-unless-impugned position on testimonial transmission of knowledge?

A working conception of knowledge and the useful falsehood problem for testimony

This is not the place for an analysis of knowledge, but in quite general (and probably uncontroversial) terms, we may conceive (propositional) knowledge as appropriately grounded true belief. If it is true that *p*, then it is a fact that *p*; and clearly, knowledge that *p* has some connection to the fact that *p*. We might perhaps call knowledge *factually grounded true belief*, so long as this is not taken to imply that the belief constituting knowledge is *causally* grounded specifically in the fact that *p* (and the condition is understood to be only a central necessary one). Knowledge of the future illustrates this, say my knowledge that I will momentarily raise my right hand. Still, knowledge that I will raise my hand is presumably based on causal factors, for instance my intention

to do this: both my believing that I will raise it and my raising it are common effects of the same causes.

This causalist, fact-groundedness conception of knowledge is not uncontroversial. Recent challenges to it come from cases involving what appears to be knowledge based on false testimony. Imagine a sister and brother, Ellen and Juan, who believe Santa Claus brings Christmas presents. Aware of their having been threatened with a bad report to Santa, Ellen asks Juan whether there will be presents this Christmas. He truly replies, ‘Yes, Mama said Santa will bring presents’. If Mama intends to give presents and (given other conditions) thereby knows there will be presents, we may plausibly suppose that Juan knows there will be presents (a practice he is acquainted with, but without sufficient experience to provide knowledge-sufficing inductive justification for the belief). But his apparently testimonial basis is false: the presents will be provided by Mama, not Santa. He appears, then, to have knowledge grounded on a false belief of false testimony.⁹

There are at least two possible cases here, depending on what Mama actually said. In the first case, suppose Mama said, ‘There will be presents—Santa will bring them overnight’. Here Juan’s knowledge appears to be testimony-based: that there will be presents is a conjunct in what Mama knew and said, and we may suppose Juan forms a testimony-based belief of exactly this proposition. She attested to this even in the strict sense if we take conjunctive affirmations to represent two or more attestations (doubtless he similarly forms the false belief that Santa will bring them). In the second case, Mama said exactly what Juan reported: “Santa will bring presents.” Now if knowledge is testimony-based, it is both non-inferential and has the proposition attested to—what is said—as its object. Juan’s belief that there will be presents (as opposed to his belief that Santa will bring them) is not testimony-based since it differs in content from what Mama attested to—that Santa will bring presents—though its content is *entailed* by that.

How, given his reliance on Mama’s false testimony in our second case, can Juan still know there will be presents? It is important to see that her testimony is an essential link in the chain leading from her intention to

⁹ This case is styled after one from Peter Klein (who credits Risto Hilpinen with noting the idea); see Klein’s nuanced and wide-ranging “Useful False Beliefs,” in Quentin Smith, ed., *Epistemology: New Essays* (Oxford: Oxford University Press, 2008), esp. 36–40. Klein’s treatment of useful falsehood differs from mine, but the two approaches seem compatible. For a valuable discussion of the problem focused on inferential beliefs rather than testimony-based beliefs, see Ted. A. Warfield, “Knowledge from Falsehood,” *Philosophical Perspectives* 19 (2005), 405–16. Warfield does not propose an account of how his subjects know from falsehoods, but my positive treatment of the problem seems consistent with his criticism of mistaken attempts to solve the problem.

give presents to Juan's true belief that there will be presents. The key point is that the falsity of Mama's testimony is not crucial for his knowledge that there will be presents; what is crucial is his believing a proposition which the one she attests to obviously entails—that there will be presents. As a case of knowledge, his belief is based on the parental *assurance* that there will be presents, to which the mention of Santa as deliverer is incidental. Let me develop this point.

We can better see how the children can know from what Mama has said if we contrast three variants on the second case, in which Mama says simply 'Santa will bring presents'. First, consider *prevarication*. Mama believes there will not be presents and so has lied. Second, take *irresolution*. Imagine that, feeling an economic pinch, she is irresolute—she wants to give presents, but isn't sure she can and has not formed an intention to give them. Third, consider *risk*. Suppose that there are robbers in the neighborhood who will quickly and quietly raid a large proportion of the houses in the wee hours Christmas morning and sweep up the presents.

In the first case, the lying testimony fails to manifest a causal basis for the truth of *p* (that there will be presents). There is no parental intention, and the children's belief that *p* is ill-grounded. If there are presents after all, either because Mama later decided to provide them or because someone else supplied them, they would have a justified true belief that does not constitute knowledge. In the irresolution case, we have a *potential* causal basis—Mama's desire to give presents. But this kind of factor does not "reliably" produce the kind of effect in question. The children's belief that *p*, then, would not be well-grounded in the way knowledge requires, hence would not be "safe," in one common terminology. That same point holds in the risk case (the third), but there the ill-groundedness arises from a threat external to the crucial causal chain. In both the second and third cases, even if Juan's belief is true, it would not constitute knowledge (assuming the thefts are random and there is no reason to think the house will be spared). It would be in a sense only luckily true: in the second case, because it is good fortune that Mama or someone else provided presents; in the third, because the robbers happened to miss the house.

These reflections illustrate why knowledge must be not only factually grounded true belief, but reliably grounded. Just how reliability is to be explicated is a major task I cannot undertake here.¹⁰ The point is that

¹⁰ Reliability is discussed widely in the literature; a general treatment is provided in my *Epistemology* 3rd ed. (New York: Routledge, 2010); a virtue-theoretic, counterfactual account in Ernest Sosa, *A Virtue Epistemology: Apt Belief and Reflective Knowledge* (Oxford: Oxford University Press, 2007); and an anti-luck account (ruling out accidentality in the grounding of knowledge) in Duncan Pritchard, *Epistemic Luck* (Oxford: Oxford University Press, 2005).

the domain of testimony illustrates the possibility of reliably grounded true belief arising directly (non-inferentially) from testimony *either* (as is common) by being testimony-based, or (as with Juan) through arising *by way of* testimony, even when the attestation is false.

Closure and directness for testimony

The distinction between testimony that *p* and assurance that *p* raises the difficult (and insufficiently explored) question of closure conditions for testimony. A great deal can be said on this, but here I can make just a few points. First, even when *p* obviously entails *q*, testimony that *p* does not entail testimony that *q*; *q* might be a disjunction with myriad irrelevancies. But, second, what we say can assure our hearer that *p* even when *p* is not *what* we say and is not the content of our attestation. Specifically, where *q* is obviously entailed *and* salient in the context, testimony that *p* can also be an *assurance* that *q*. Suppose Ellen had asked whether Mama would take her to the Nutcracker this year. Mama's saying that she *and* Daddy would take her would be an assurance that Mama will, though this is not exactly what is said. It also seems no more (nor any less) clearly entailed than the proposition that there will be presents is entailed by the proposition that Santa will bring them. Being taken to the Nutcracker, however, is of interest in a way that, in the original case, Santa's bringing the presents (as opposed to someone else's) is not.¹¹

A third and more general point important here is that belief basing, like understanding of italicized elements, can be selective. Mama said not (e.g.) '*Santa* will put presents under the tree' (which requires a more complicated analysis), but simply 'Santa will put presents under the tree'.¹² Here Juan acquires knowledge by way of testimony, but not testimony-based knowledge. One might describe knowledge like Juan's, which is rests on assurances that are embodied in testimony but are

¹¹ It should be granted that testimony might be closed under simplification (conjunction elimination) even if it isn't closed under obvious entailment. I suspect its closure conditions are not entirely clear; but even if attesting to *p* and *q* entails attesting to each separately, it does not follow that *believing* the attested conjunction entails believing each conjunct separately. More important, believing something on the basis of one conjunct is possible, especially with conjunctive testimony, without believing it on the basis of a believed conjunction of which it is part.

¹² The case is a good one for showing that it is an exaggeration to treat knowledge as invariably creditworthy belief. Here the child knows the proposition only because he in a sense "brackets" a false element in the testimony, something less likely if the testimony stresses that element. For further considerations showing limitations of the credit view of knowledge, see Jennifer Lackey, "Knowledge and Credit," *Philosophical Studies* 142 (2009), 27–42.

not equivalent to what is attested to, as based on *indirect testimony*. But ‘indirect testimony’ is too broad; it is not only vague but includes modus-ponens cases and invites inclusion of knowledge of even less obvious entailments of what is attested to, as where an implication of *p* follows from it by two or three obvious steps. We could also speak of *indirectly testimony-based* beliefs; but that term can also naturally cover cases in which there is an epistemically relevant intermediary. One kind of intermediary is of course testimonial. If I believe *p* on the basis of your attesting to *p*, but you believe it on the basis of a third person’s attesting to it, my belief is naturally said to be indirectly based on the testimony of the third person.¹³ A belief’s being indirectly based on testimony that *p* does not entail that it is inferential.

Suppose, however, that a belief *is* inferentially based (wholly) on testimony—strictly, on inference from a false premise believed because it is attested to. To see the significance of inferential dependence, recall Ellen’s asking Juan whether there will be presents this Christmas. He replies, ‘Yes—Mama said Santa will bring them’. He knows she said this, and it is a premise he states to Ellen to assure her that there will be presents. His own premise here, however, need not be that Mama said this; rather, he may reason: Santa will bring presents, so there will be presents. His premise, in the case imagined, is the *content* of Mama’s testimony, not the report of it; and his premise is false: the presents will not be brought by Santa. Yet he still appears to know that there will be presents; and it *seems* that he knows it on the basis of a *false* belief. Even if we suppose that his belief that there will be presents, as initially formed on receiving Mama’s testimony, non-inferentially rests on the false testimony that Santa will bring them, when he assures Ellen that there will be, he may then inferentially believe that there will be, on the premise that Santa will bring them. We have, then, at least two kinds of cases in which knowledge can apparently rest on a useful falsehood. In one case, the belief constituting this knowledge is inferential, as where Juan sincerely presents a reassuring argument to Ellen; in the other, the belief is not inferential, as where Juan simply accepts Mama’s testimony. Must we draw the disturbing conclusion that one can have knowledge, and not merely justified true belief, on the basis of (believing) a false premise, as well as testimony-based knowledge resting on false testimony? I think not.

¹³ Might it also be indirectly testimony-based, however, in a very different way, as where I believe that the Thompsons’ house guests are coming to my party on the basis of *both* your testimony that the Thompsons are coming and other beliefs about their social behavior? This seems better called a belief that is *partly* testimony-based; other elements, such as perception, can also cooperate with testimony (with or without inference being involved) to produce belief.

Two types of basis of belief

To see why, we should distinguish between the *basis of a belief that constitutes knowledge* and the *basis of the knowledge it constitutes*.¹⁴ One plausible hypothesis is that although, in the case where Juan cites Mama's testimony as a reason for his sister to expect presents, his *belief* that there will be presents is inferential, being based on his premise belief that Santa will bring them, his *knowledge* that there will be is nevertheless *non-inferential*, having been non-inferentially produced by Mama's assurance that there will be. He knows there will be presents because his belief that there will be is appropriately grounded in a fact that guarantees its truth: this belief is produced (in part) by her intention to give the presents, which in turn produces her testimony that Santa would bring presents; and her testimony—functioning as (or at least entailing) an *assurance* that there will be presents—produces his belief that there will be presents. The crucial point, for both the inferential and non-inferential cases, is that his belief that there will be presents derives, in a reliable way, from a fact that guarantees that there will be, and does so in such a way as to make the false premise—mistaken only as to who will bring the presents—epistemically harmless. Juan's belief is knowledge *by way of* testimony but not testimony-based; and though the belief causally depends on false testimony as a link in the causal chain, it does not epistemically depend on its falsity.

There is a temptation to say that Juan's *belief* that there will be presents rests, not on Mama's actual testimony—that Santa will bring presents—but on her assurance that there will be. But this need not be so and seems unlikely for a boy who believes Santa is the bearer of the presents and accepts Mama's entire testimony at face value. He believes there will be presents on the basis of accepting testimony that Santa will bring them. Surely Juan need not even believe here that Mama has assured him, or has said, that there will be presents, though certainly he is *disposed* to believe the latter proposition.

The notion of an assurance that *p* deserves emphasis and clarification. We can acknowledge that Juan's belief is testimony-based in the usual way without denying that his case is special. In special cases like his, one cannot have the thought that *p* without having the thought that *q*, as where *p* simply is the conjunction of *q* and *r*, and with

¹⁴ This distinction is one I have drawn in making coherentism more plausible than it would be otherwise; see Chapter 7 of my *Epistemology*. The distinction, together with the overall account of benign falsehoods suggested here, supports the case made by Federico Luzzi against the counter-closure principle that if you know that *p* entails *q*, come to believe *q* solely on the basis of competently deducing it from *p*, and know *q*, then you also know *p*. See "Counter-Closure," *Australasian Journal of Philosophy* 88, 4 (2010), 673–683.

transparent entailments of *q* by *p*. Here *p* might be said to *embody* *q*.¹⁵ For entailing embodiment cases (in which *p* entails *q*, *and* having the thought that *p* entails having the thought that *q*), let us say that (1) testimony that *p* constitutes an assurance that *q* and (2) one *may* believe *q* non-inferentially on the basis of one's believing *p* on the basis of testimony. Where, as in our example, *q* (that there will be presents) is weaker than *p* (that Santa will bring presents), *q* can be true when *p* is false. Thus, one might have, as Juan does when he first believes Mama's testimony, *non-inferential* belief, and *non-inferential* knowledge, that *q* *ultimately* on a basis that is factually suitable to ground knowledge that *q*. In our last example, in which Juan gives Ellen a premise for there being presents, the case is different: he is now reasoning in support of what he tells her, and his *belief* that there will be presents may be inferential. But apart from a need to cite a reason for believing there will be presents, he might have had—as in the first, testimonial case—a *non-inferential* belief of this, and in both cases his *knowledge* is factually grounded in the right way and without inferential dependence.

It may be helpful here to consider another way in which knowledge can arise by way of false testimony. Suppose that Pauline knows that Donal will think she is misleading him and will believe, not what she says, but its contradictory. Wanting Donal to believe that a recommendation has been done, she says, when he asks if it has been done, 'I've not done it yet'. There are at least two cases here. In one, this kind of exchange is longstanding, and he has confirmed that she "reverses" the truth. He might then infer from her testimony that the opposite is true and come to know the truth she intends. This is inferential knowledge in which testimony provides a premise; it is not testimony-based knowledge.

The same kind of example, however, can show a different point about knowledge which arises by way of testimony but is not testimony-based. Suppose Donal has come to reverse what she says "automatically," as if it contained a negation. If Pauline, in all her testimony, reliably intends to get him to believe the truth and reliably speaks falsely in a way that his cognitive system reliably and non-inferentially corrects, he might acquire knowledge *by way of*, and *from*, her testimony that is not *testimony-based* knowledge. If that description seems odd, note that if he told a third party that he knows that *p* on the basis of her testimony—or, especially, on the basis of her testimony

¹⁵ Not all propositional embodiment exhibits entailment; the proposition that Eve asked whether David said that *q* embodies the proposition that *q* but does not entail it.

that *not-p*, the hearer, having heard her say that *p*, would misunderstand. Similar cases can be constructed from certain patterns of misspeaking for which hearers systematically adjust; but enough has now been said to clarify the basic distinction between testimony-based knowledge and knowledge that is only by way of testimony. Both are generically *testimonial*, but they differ significantly.

3. Testimony as a Source of Knowledge and Justification

If we hold that testimony is not a basic source of knowledge, how might the points so far made about testimony help us understand the way in which it can be a source of knowledge at all? To begin with, we must suppose that what an attester knows, even if based on testimony, is ultimately based at least in part on a non-testimonial source, such as perception. A testimonial chain that contains testimony-based knowledge cannot be infinitely regressive. I cannot know that *p* from your testimony, you from hers, she from his, ad infinitum. This does not imply, however, that such a knowledge-embodying testimonial chain cannot be infinitely *progressive*. If I witness a great event, I can initiate a testimonial chain that keeps the good news alive for ever. In a typical case in which I attest to *p*, I know that *p* through perception or through inference from something I know, or through the testimony of someone who knows it in some non-testimony-based way; I retain it in memory; and my saying it to someone causes that person to believe it. Thus, the recipient's knowledge that *p* "traces," in some (non-wayward) causal way, and through the operation of some basic source of knowledge, to the fact that *p*. Such causal chains may, to be sure, be so loose that knowledge gets lost. This might occur where my memory is so hazy that I should not trust it. If, from a faint memory impression, I tell you that *p*, which I once knew, perhaps I no longer know it and your trusting me yields at most a justified true belief. But apart from defeating elements, there is no reason why even very long testimonial chains cannot preserve the fact-groundedness that enables testimony-based beliefs to constitute knowledge.

So far, I have spoken only of cases in which both the fact that *p* and its truth-grounds are in the causal order. But suppose we countenance abstract entities. How can knowledge that nothing is round and square be grounded in that fact if it concerns abstract entities having no causal powers? Much could be said here, but it is crucial to see that if *understanding* the proposition in question is the epistemic ground of knowing it, such understanding can be a causal sustainer. If one then takes the understanding to be in part a direct apprehension of the abstract fact in question, one can then take that fact to have an

appropriate grounding role, *via* the understanding, in the person's knowledge.¹⁶ A causal connection to a direct apprehension of a fact is as reliable as a causal chain to the fact itself.

Language learning is another special case in which testimony is normally crucial and from which we can also see something important about the epistemology of testimony. When a parent says to a child things like 'That's a cat' and (perhaps on the same walk in the park) 'That one is a dog', the child may be learning, if only partially, three things: the terms applied, the concepts they express, and the propositions affirmed in teaching those terms. This would be simultaneous linguistic, conceptual, and propositional learning. These may, however, be separable empirically, though it could be that learning semantically new expressions, as opposed to learning literal translations or learning to recognize mere symbols, requires some degree of conceptual learning. Even where testimony yields only or mainly knowledge *of*, say of a word's meaning, rather than knowledge *that*—knowledge of a proposition—there will be a causal connection between what is learned and appropriate facts.

Can testimony yield knowledge without justification?

It has been common in philosophy to take knowing to entail justifiedly believing; but not all epistemologists hold this, and I reject the view. In the domain of testimony we can draw some contrasts that support my position—call it *the autonomy of knowledge with respect to justification*—and at the same time clarify the epistemology of testimony.

The first point to stress is that testimony does not produce justification in the recipient by transmission. My sense of your credibly attesting that *p* is what—together with my background justification regarding the reliability of testimony in general—justifies my believing *p* on the basis of your testimony. Your justification for believing *p*, say your clear memory impression that *p*, is not transmitted to me, and indeed you can justify my belief even if you have no such justification.

It seems possible, moreover, that you can give me testimony-based knowledge that *p* without my being justified in believing *p*. You might have enormous influence over me and have a persuasive way of putting things. Suppose you are reliable, know that *p*, and tell me that *p* in a way that leads me to believe it even though I rationally—though without strong justification—think you are unjustified and I try to withhold belief. Suppose further that my ground for doubting the testimony is

¹⁶ This view is developed in more detail in my "Skepticism About the A Priori: Self-Evidence, Defeasibility, and *Cogito* Propositions," in John Greco, ed., *The Oxford Handbook of Skepticism* (Oxford, Oxford University Press, 2008), 149–175.

just minimally sufficient to block justification for believing *p*. Might my belief not constitute knowledge by virtue of the right connection with the fact that *p* even though I rationally believe you have insufficient evidence for *p* and, in line with my skeptical scruples, may even mistakenly think I don't hold the belief? Compare a case in which one hears a plausible skeptical argument against the justifiability of a perceptual belief but goes on holding it. Must we suppose that one's justifiedly thinking the argument cogent—in which case one is presumably not justified in retaining the belief—prevents one's knowing that there is an oak before one? I think not, but this is debatable. The answer depends on whether (as I doubt) such higher-order justification entails unreliability regarding the impugned lower-order belief. On my view, this depends on the situation. In at least the second case just described, we might have a triumph of nature over artifice.

A different kind of case is provided by the earliest propositional learning. Is it plausible to say, of a tiny child just learning that a certain animal is a cat, that the child is justified in so believing and unjustified in believing a nearby dog to be one? The child is apparently not yet a candidate for either appellation, though one might argue that this is only a pragmatic point, say an appearance created by our patterns of speech. I doubt this. We correct tiny children, but we do not criticize them, or hold them responsible for error, in the ways appropriate to persons capable of being justified or unjustified. Granted, in the form of an appropriate sensory experience, the child possesses *a justifier for p*; but this does not entail having a justification in the sense in which that is equivalent to being justified in believing that *p*. The difference is something like that between a child's having, in a bank account, inherited money to which it must gain access through getting a trustee to release it and adults' having money in their pockets. Perhaps 'having justification for believing' is, in special cases, wider than 'being justified in believing' and we need only note this point in theorizing. In any case, there is little question that testimony works differently as a source of justification than as a source of knowledge, and that is enough of a contrast for the purposes of this paper.

The presupposition of trustworthiness

Whether we are speaking of testimony as a source of knowledge or as a source of justification, it is clear that testimony is commonly taken to be in a certain sense *trustworthy*. It must be if it grounds knowledge, since only a belief's having a trustworthy connection (a kind of reliable one) to the fact that *p* can render that belief knowledge. The trustworthiness in question is a matter of the credibility of the testimony, not

of the moral or even general trustworthiness of the attester—the latter is a kind of *agential trustworthiness*. As to justification, I contend that unless one has some degree of justification for taking an attestation to be trustworthy—roughly in the sense that it is credible, worthy of belief, likely to be true, or the like—it does not give one justified belief that *p*. The point is not that one must have a *belief* that the testimony is trustworthy; one need only have grounds sufficient to give some degree of justification for believing this. This point is of course independent of the question whether knowledge entails justification. Even if it does, testimony can function in the different ways I have outlined in being sources of each.

On the view I propose, whereas testimony-based knowledge is basic knowledge, testimony-based justification is not basic justification. Not only is testimony not a basic source of justification, the justification it gives is not based on it in the direct way knowledge may be based on it. How is that possible, if I am correct in taking testimony-based belief to be non-inferential? Why shouldn't such beliefs have to be inferential at least where they are justified? Isn't non-basic justification necessarily inferential?

Two kinds of justificatory dependence

The answer seems to be that there are at least two kinds of justificatory dependence. With inferentially dependent justification, my justifiedly believing *p* requires that this belief be based on one or more premises I have for *p*. With justification that is not inferentially dependent—as least as regards testimony-based beliefs—one needs experience, but not premises. An obvious instance is the need for sufficient experience to understand *p*. But this is not only a non-inferential dependence but also non-epistemic, whereas the dependence of testimony-based justification on other kinds of justification is epistemic. I need a kind of confirmatory background experience to derive justification from your testimony, even though the justification isn't based on inferring that *p* from such propositions as that you wouldn't say that *p* if *p* were not true, or that you are saying that *p* partly because you know it is true, or that the truth of your testimony is required by the best explanation of your giving it.

The most crucial kind of experience here is correlational: a kind of track record experience. We commonly find, for instance, and children often find very early in life, a pattern in which what people say in undefeated testimony is confirmed. We normally find this confirmed far more often than we see it disconfirmed. We can be cognitively influenced by the experience of such a pattern even if we do not form a belief that it has occurred.

It might now be asked why the need for a track record doesn't imply, or at least isn't best explained by, positing inferences, perhaps unconscious ones, in which a premise, for instance that *usually* one has found testimony reliable, plays a central role. Even apart from the difficulty of making sense of unconscious inference (by which I mean, roughly, inference with no cognitively significant manifestations in consciousness), there is a more plausible hypothesis, namely, that as we grow up in any normal human environment in which we get reliable enough testimony to learn a language in the way we normally do, we acquire a sense of undefeated testimony as a reliable indicator of truth. Undefeated testimony can be something like a familiar face. We don't need many exposures to achieve recognition in the latter case, nor need our first recognition be a result of inference from, say, features of the face that we can describe and use as a basis of inference. In the case of testimony, this is highly variable, but it seems likely that by the time a child learns a language and has the concepts needed even for having the belief that testimony is typically reliable, there is no need for such a belief. The pattern of human testimony in a context in which it is not defeated tends to produce belief in direct way. It is easy to see, moreover, how such a natural—though not indiscriminating—credulity would have survival value.¹⁷

Undefeated testimony

Speaking more generally, normal human experience leads us, very early in life, to form a kind of trust of others in situations of what I am calling

Undefeated testimony: the kind that occurs in the absence of *at least* the following common and probably most characteristic defeaters: (1) internal inconsistency in what is affirmed, as where an attester gives conflicting dates for an event; (2) confused formulation, a kind that will puzzle the recipient and tend to produce doubt about whether the attester is rightly interpreted or even has a definite belief to communicate; (3) the appearance of prevarication, common where people appear to be lying, evading, or obfuscating; (4) conflict with apparent facts evident in the situation in which the testimony is given, as where a person shoveling earth over smoking coals says

¹⁷ See Peter J. Graham, "Testimonial Entitlement and the Function of Comprehension," in D. Pritchard and A. Millar, eds., *Social Epistemology* (Oxford: Oxford University Press, 2010), 149–74, for discussion of how such cognitive tendencies may be viewed in a proper-functionalist evolutionary perspective.

there has been no campfire; and (5) (discernible) conflict with what the recipient knows, justifiably believes, or is justified in believing.

These conditions may occur separately or together; and the more of them an attestation satisfies, the more clearly defeated it is, other things equal. The last two elements in (5) bear more on testimony-based justification than on testimony-based knowledge, but any of (1)-(5) at least strongly tends to prevent the recipient's acquiring testimony-based justification or knowledge.

Trust in testimony, when justified—even if only by kinds of experience very young children (as in the Christmas present case) have had—frees us from an epistemic need to draw justificatory inferences, or at least to take a critical stance, *whenever* we receive undefeated testimony. A justified trust in testimony depends on a kind of cognitive filtering tendency which is activated by defeated testimony; the finer the filter, the more readily defeat is detected and the more discriminating the recipient. Inference is not required for detection of defeat or for consequent withholding. But, with or without inference, if we do not have justified trust of the testimony that *p*—or at least justification for having it—then we should not believe the attester and will not be justified in believing *p* on the basis of the testimony.

The normative authority of testimony

As rational persons, we should normally believe—if often with caution—undefeated testimony. Why should this be? Here I must be very brief. Let us first ask whether normally, someone else's *believing p* has any authority for us. Suppose I have no information relevant to *p* but know you believe it, and I have no ground for thinking there is a defeater for the justification of your belief. Might this be some slight reason to believe *p*—assuming you are rational. If so, then we might say that *justificationally undefeated belief normally has some normative authority* (over others who have appropriate access to it, as well as over the believer). What proportion of the beliefs of a given person is justificationally undefeated is a contingent matter (and depends on what elements actually defeat doxastic justification—a matter that cannot be pursued here); but for normal persons in normal environments—especially those environments that normal persons give undefeated testimony about—the proportion of undefeatedly justified beliefs expressed by their testimony seems very large. Now if undefeated testimony is such that there is some rational presumption that it represents what the attester believes in a justificationally undefeated way, such testimony

thereby has some normative authority. One consideration is that the truth of testimony that *p* cannot be less well supported than the truth (as opposed to the holding) of the belief that *p*. Indeed, there are normally fewer reasons to doubt someone's belief that *p* than to doubt the person's testimony that *p*—the former cannot be a misstatement or a lie. There may be other reasons to take undefeated testimony to have such authority, but this consideration is one that goes well with the idea that belief that *p*, like knowledge that *p*, is commonly best explained by being appropriately connected with the fact that *p*.

The debate between reductionists and anti-reductionists

The account of testimony-based knowledge and justification proposed here bears directly on the continuing debate between reductionists, such as Hume, and non-reductionists, from Reid to Coady and others.¹⁸ Indeed, the rationale for a view of Jennifer Lackey's may be partly explained by my conception of testimony-based justification. She says that

to accept a speaker's testimony *in the complete absence* of positive reasons on behalf of the testimony in question is to exhibit an epistemically unacceptable kind of irrationality . . . contrary to non-reductionism, testimonial justification *depends on* the justificatory resources of other epistemic sources.¹⁹

Reductionists take testimony to be a source of knowledge, and presumably of justification if they think that knowledge entails justification, *only* when the recipient has an appropriate degree of independent justification for taking the attester to be credible, or for *p*, or both. A reductive position may be strong in requiring sufficient non-testimony-based

¹⁸ Hume's discussion of miracles in *An Enquiry Concerning Human Understanding* (1748) is often cited here; for discussion of the case for a kind of reduction see also Elizabeth Fricker, e.g. "Testimony: Knowing Through Being Told," in Ilkka Niiniluoto, Matti Sintonen, and J. Wolenski, eds., *Handbook of Epistemology* (Dordrecht: Kluwer, 2004), and the papers by Sanford Goldberg, Peter Graham, and Jennifer Lackey in Lackey and Sosa. Anti-reductionist views have been defended by Thomas Reid in, e.g., *An Inquiry into the Human Mind on the Principles of Common Sense* (Edinburgh: Edinburgh University Press, 1997), first published in 1764; C. A. J. Coady, *Testimony: A Philosophical Study* (Oxford: Oxford University Press, 1992), and Tyler Burge, "Content Preservation," *Philosophical Review* 104 (1993), 457–488.

¹⁹ Jennifer Lackey, "It Takes Two to Tango: Beyond Reductionism and Non-Reductionism in the Epistemology of Testimony," in Lackey and Sosa, p. 179. Her (broadly intermediate) view is more extensively developed in *Knowing from Words*, esp. chapter 5.

justification or (more plausibly, I think) moderate in requiring only sufficient justification in which *other* testimony may figure, in a limited role (say through what is retained in memory), along with non-testimony-based justification. Anti-reductionists take testimony to be a basic source of knowledge, and presumably also of justification if they think that knowledge entails justification.

We might partly explain the disagreement as follows. Reductionists tend to focus on—or anyway their view is encouraged by a focus on—testimony-based justification rather than testimony-based knowledge. A proponent of this view might also be thinking of requirements for *showing* justification, as opposed to simply having it; and since showing that one is justified in believing *p* requires providing grounds, typically premises from which one may infer what is to be shown, it is natural for anyone so viewing testimony to take testimony-based justification to be inferential. By contrast, anti-reductionists are perhaps thinking of testimony-based *knowledge* and rightly see it as non-inferential. They may thus rightly take it to be basic knowledge, and if (like many philosophers, I believe) one does not observe a distinction between a source of basic knowledge and a basic source of knowledge, it is natural to take testimony to be a basic source of knowledge. This natural inclination is abetted because testimony in fact *is* basic *in*, by virtue of being productive of and essential to, at least much human knowledge as we know it.

Belief and acceptance: cognitive and behavioral responses to testimony

There is a further point, less easily grasped. Some anti-reductionists may also be assimilating belief to behavioral acceptance; the assimilation is in any case sufficiently tempting to need exposure. Paradigms of cases in which testimony is given are situations in which undefeated testimony is provided where information is needed for action and its acceptance may consist chiefly in acting on it. And here, although testimony is not a source of belief or knowledge at all, it is a source of something closely related to belief: acceptance. Here is an a priori principle expressing one implication I have in mind. Call it

The behavioral necessity principle for testimonial acceptance: If we need to act and cannot do that without certain information, then, in the absence of reasons to doubt testimony that we can see provides such information, our (behaviorally) *accepting* that testimony as a basis of action is rational.

Roughly, such acceptance is a kind of intention-formation that is based on the testimony taken as a guide to action. If a believed proposition

is, as it were, a solid line on one's map of reality, a merely accepted one is a dotted line. We follow dotted lines where we have no solid path. Note, too, that on this principle, rational acceptance does not require any track-record justification, as does justification for *believing* testimony.²⁰ Granted, *negative* track-record evidence could defeat rationality here; but rational acceptance is not like that of justified testimony-based belief in exhibiting a positive epistemic dependence on a sense of a testimonial track-record.

This acceptance principle will hold even when one has reason to consider the probability of p so low that one would not be rational in believing, as opposed to *hoping*, that it is true. If, with no idea whatever where the roads lead, I must turn right or left to avoid a forest fire that seems to be burning on all sides of me, and someone yells from behind a bush, and in a voice indicating neither conviction nor any other sign of credibility, that the left fork is the way out, I had better take it. The behavioral acceptance principle, however, is not epistemic, and its plausibility as a practical principle may obscure the stronger grounding conditions to which believing—doxastic acceptance, if you like—is subject.

It should be evident that I am rejecting both wholesale reductionism and wholesale anti-reductionism. Wholesale reductionists miss the likeness of testimony as a source of knowledge to perception, at least insofar as they take testimony-based belief to be tacitly inferential; and, for reductionists who think knowledge entails justification, conditions for testimony-based knowledge tend to be assimilated to conditions for testimony-based justification. Wholesale anti-reductionists miss differences between testimony and perception as sources of justification and knowledge, since they take testimony to be a basic or otherwise independent source of both.

4. Trustworthiness, Trust, and Intellectual Responsibility

We have seen that trustworthiness in testimony is required for it to yield knowledge but not for its providing justification. But trustworthiness in the attestation (or indeed in the attester) does not imply trust in the recipient, nor does the latter imply the former. Trust and trustworthiness have different directions of fit. Trust is fulfilled when its *object* meets certain expectations in those who trust; trustworthiness is

²⁰ Between belief and acceptance lies what I have called cognitive presumption, something suggested by the notion of the presumption of innocence. Discussion of presumption and some references to relevant literature are provided in my "Testimony as an A Priori Basis of Acceptance: Problems and Prospects," *Philosophica* 78 (2006) (appearing in 2009), 85–104.

fulfilled when the *subject*, the trustworthy person, meets (or would meet) certain expectations (or hypothetical expectations) on the part of someone who trusts the person. Is the recipient's trusting, or even justifiedly trusting, the attester needed for acquisition of testimony-based justification by the recipient? I think not, but there is still a normative requirement. Let me explain.

It is true that without some measure of trust, at least regarding the attester, one might not acquire testimony-based belief at all, hence might not acquire testimony-based knowledge or justified belief. But *unjustified* trust will prevent one's acquiring testimony-based justification for *p*, even if, from another source, one acquires another kind of justification for believing *p* at the time, say by seeing its truth from something one remembers just as the attester affirms that *p*. Suppose the recipient trusts unjustifiedly, as do the gullible. Here the recipient might get neither testimony-based knowledge nor, especially, testimony-based justification; but there are exceptions. A gullible recipient might acquire knowledge that *p* (largely) because, on the occasion of undefeated testimony, the attester knows that *p*, intends to communicate it, and would not mislead the recipient.²¹ Still, is it not possible to lack trust, as a skeptic might, even though one is justified in trusting? In this case, if one does not acquire testimony-based belief that *p*, as one should where the attester is sufficiently plausible, one may still be justified *in* believing *p*. We might say that one *should* trust and should believe. This normative condition is crucial. It is commonly accompanied by actual trust, but need not be.

A useful comparison is with the trustworthiness of a non-agential source of information, say a reference book. Non-agential trustworthiness is a broadly epistemic notion and closely associated with probability. The trustworthiness of a person in giving information is both epistemic and, in an ethical sense, normative. How trustworthy are most of us in this double-barrelled sense? And to what extent is this up to us? These are largely empirical questions. What is not empirical is that morally, we *should* undertake to be trustworthy in our attestations, epistemically and normatively. This is a central standard in the ethics of communication. Sceptics would have us be so cautious that we attest to too little and others cannot learn enough from us. Laxity

²¹ To be sure, gullible recipients might by good luck acquire knowledge that *p* (but not justification for believing it) because, on the occasion of testimony by someone they should not trust, the attester knows that *p*, intends to communicate it, and would not mislead them. This might be called *circumstantial*, as opposed to *transmissional* luck: the recipient is lucky to be in a position to know, but it is not by "luck" that, given the basis of the belief, it is true. For a wide-ranging examination of how the occurrence of luck undermines knowledge, see Pritchard, *Epistemic Luck*.

would have a contrasting influence: we would attest to far too much and, even if we produced more beliefs than otherwise, we would transmit less knowledge. Intellectual virtue finds a mean between these two poles.

When it comes to trust, we have a psychological, not a normative, notion. This is not to say that trust is not commonly a good thing, but so is pleasure, and the notion of pleasure is not normative. Moreover, much as we can tell someone is taking pleasure in something without presupposing that the person regards it as (say) good, we can tell whether someone trusts another without having any normative beliefs about, or even presupposing that the trusting person has any normative beliefs about, the other. The point is mainly that criteria for the presence of trust are psychological and do not require normative ascription or evaluation.

The normative problem here is to determine the degree of trust appropriate for us as recipients of testimony. We need a mean between skepticism and credulity. The question of what constitutes that mean lies in the domain of the ethics of belief, and different means may be appropriate to different kinds of situation. Situations of major medical decision, for instance, are governed by a higher standard of evidence than holds for choices from an ordinary dinner menu. Must we, however, regularly monitor our interlocutors? Or is it enough to have a well developed sense of credibility and a sense of when evidence is needed beyond someone's sayso? There is no quantitative answer, and different contexts call for different responses. Here, however much philosophers can assist practical wisdom by presenting cases and principles, there is no substitute for it.

Testimony is essential in the transmission and extension of knowledge and a mainstay of our justified beliefs. Testimony is an essential even if not basic source of knowledge. Moreover, knowledge can arise *by way of testimony* even when the belief constituting that knowledge is inferential or otherwise not testimony-based, and even when the testimony is false. In explaining this possibility, we saw something important for understanding knowledge in general: the distinction between the basis of a belief that constitutes knowledge, which might be false testimony, and the basis of the *knowledge* it constitutes—a basis that must be reliably connected with the truth of the belief. This distinction explains how knowledge can arise *by way of* false testimony without being based on it. Testimony is important not only for human knowledge; it is also a common even if not basic source of justification for belief. But it works quite differently as a source of justification than as a source of knowledge. In neither case, however, is it a source of cognition on a

par with perception. Its similarity to perception has been shown by bringing out how it produces non-inferential cognitions. It may do this as naturally as perception, but that is compatible with its epistemic dependence on perception for receiving it. Testimony also depends on non-testimonial sources of knowledge for its capacity to create testimony-based knowledge. Our aim in the epistemology of testimony is to understand testimony and its role in giving us knowledge and justification. That aim has been my main concern. But I have tried to bring out at the same time that our proper aim in everyday life is to be trustworthy in giving testimony and responsibly trusting in receiving it.²²

²² This paper was written for presentation as the Knowledge Lecture at the University of Edinburgh and has benefited from discussion on that occasion. Earlier versions were presented at Amherst College, Northwestern, Notre Dame, and the University of Kutztown, and I am grateful for exchanges of ideas on those occasions with Alexander George, Sanford Goldberg, Scott Hagaman, Joseph Jedwab, Jennifer Lackey, Matthew Lee, Duncan Pritchard, Fritz Warfield. I especially want to thank Peter Graham and Peter Klein for detailed comments.