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THE PLACE OF TESTIMONY IN THE FABRIC OF KNOWLEDGE AND JUSTIFICATION

Robert Audi

Testimony is a pervasive and indispensable source of knowledge and justification, and it may be as significant for the theory of communication and the psychology of belief acquisition as it is for epistemology. It is a central concern of social epistemology, in which philosophers have shown increasing interest. But despite a small number of valuable discussions devoted to testimony in the past fifteen years,¹ it remains very much a secondary topic in epistemology. This treatment is neither adequate to its epistemological importance nor desirable from the point of view of a comprehensive account of knowledge and justification. An account of testimony can clarify both the social and the individual grounds of belief. It can also bring out major differences between two central epistemic concepts often too closely linked: knowledge and justification. I begin with a sketch of the nature and pervasiveness of testimony and proceed to explore its psychology, its epistemic status, and its place in human cognition.

I. FORMAL AND INFORMAL TESTIMONY

The word 'testimony' commonly evokes images of the courtroom, where someone sworn in testifies, offering information supposed to represent knowledge or belief. Often such testimony recounts what was

witnessed firsthand, but testimony can be about something not witnessed, such as the implications of a scientific theory.² Formal testimony, however, is not the basic kind (if indeed there is a basic kind). Formal testimony differs from the informal kind in the conditions of its expression, but not necessarily in credibility. Testimony of the wide sort that concerns me — roughly, saying or affirming something in an apparent attempt to convey (correct) information — is what raises the question of how testimony is important for knowledge and justification.³

For the casual giving of information, say in telling someone where one was last night, 'testimony' is a heavy term. We could speak of 'informing', but this is too narrow, both in suggesting a prepared message (as in 'Yesterday she informed me of her intention') and in (normally) implying its truth. We might regard all testimony as a kind of saying, but not all saying — even apart from what is said in fiction — is testimony. Someone who says, 'Ah, what a magnificent tree!' is expressing a sense of its magnificence, but not giving testimony that it is magnificent.

As a broad rubric for the oral or written statements that concern us, I propose *attesting*. This covers both formally testifying

that something is so and simply saying, in the relevant informational way, that it is so. It also captures the idea of saying something *to* someone. Testimony is always given to one or more persons (to oneself, perhaps, in the limiting case), but the audience may be hypothetical: a diarist describing atrocities for posterity may not know whether anyone will read the testimony. What we must understand is the role of testimony of all these kinds — roughly, of people's telling us things — in accounting for knowledge and justification. I want to begin with how testimony yields belief; its psychological role in cognition is both intrinsically interesting and epistemologically important.

II. THE PSYCHOLOGY OF TESTIMONY

If we start by focusing on formal testimony, we might conclude that as a source of belief testimony is quite unlike perception in that testimony produces only inferential beliefs of what is said, whereas perception commonly produces non-inferential beliefs about what is perceived. The idea that beliefs based on testimony arise by inference from one or more premises is probably natural in relation to formal testimony. When I hear courtroom testimony, I appraise the witness, place the testimony in the context of the trial and my general knowledge, and accept what is said only if, from this broad perspective, it seems true. I do not just believe what I hear; I believe it only on the basis of certain premises, say that the witness seems sincere and that the testimony in question fits what I know about the case.⁴

In this inferentialist picture of testimony, it is apparently not as direct a source of belief as is perception: it yields belief only through both the testimony itself *and* one or more premises that support the proposition attested to or at least the attester's

credibility. If that is so, testimony is also not as direct a source of knowledge or justification; for one would know, or be justified in believing, what is attested, only if one knows, or is at least justified in believing, one's premise(s). One could not know simply *from* testimony, but only from premises *about* it as well.⁵

Another, probably more plausible, account can also explain the psychological role of background beliefs. On this account, beliefs about the credibility of the attester and beliefs pertinent to the attested proposition play a mainly filtering role: they prevent our believing testimony that does not "pass," for instance because it seems insincere; but if no such difficulty strikes us, we "just believe" (non-inferentially) what is attested. These filtering beliefs are like a trap door that shuts only if triggered; its normal position is open, but it stays in readiness to block what should not enter.⁶ The open position is a kind of *trust*. The absence or laxity of filtering beliefs yields credulity; excessively rigorous ones yield skepticism. It could turn out that the inferentialist and filtering belief accounts both apply, but in different circumstances (nor are beliefs the only psychological elements that can filter out certain attested propositions). The psychological possibilities here are too numerous to detail. It is enough to see that belief based on testimony need not be inferential, say grounded in a further belief that the attester has spoken plausibly.

In the case of informal testimony — the most common kind — the beliefs produced in the hearer are typically not inferential. When trusted friends speak to us on matters we do not think are beyond their competence, we normally just believe what they tell us. Indeed, if I am basically trusting of people's word, then normally, when someone tells me something, my belief system stands ready to be stocked; I hesitate

only if (for instance) a would-be new belief conflicts with one or more beliefs already in my inventory.⁷ If you look healthy and tell me you recently walked thirty miles, I may readily believe you, whereas in the absence of special evidence I would not believe someone claiming to have climbed Mt. Everest without rope. On my background beliefs, that feat is virtually impossible.

Just as it is misleading to build an account of the psychology of testimony from the formal cases, it is a mistake to take a momentary (synchronic) view of how testimony produces belief, even in the non-inferential cases. Our standing beliefs, and even our belief-forming processes, may change in the course of our receiving testimony; and a testimonially based belief may arise diachronically. Suppose I meet someone on a plane. She tells me that, at a conference, a speaker I know lost his temper. Initially, I suspend judgment about whether he did so. Such things are rare, and I do not know her. Then, as she describes the conference, other details begin to fit together and she confirms information I already have, such as who was there. Soon I am listening in an accepting attitude, forming beliefs of each thing she says. At the end, I find that I *now* believe that the speaker did lose his temper. Here my testimonially based belief is formed considerably later than my hearing the testimony it rests on.

Even when she first reported his losing his temper, I need not have inferred that (for instance) I should suspend judgment on this unlikely statement; suspended judgment (or simple non-belief) may be a non-inferential response to the constraints set by my independent beliefs. Moreover, her testimony is *neutralized*, but not *overridden*, by my antecedent beliefs and impressions: they prevent my believing what is attested to; they do not overturn a testimonially grounded belief I formed and

then gave up, as where I discover it is inconsistent with apparent facts. As her narrative progresses, the constraints set by my independent beliefs relax; and, for each of her statements, I form beliefs both non-inferentially and even spontaneously, in the sense that any constraints that might have operated do not come in: her statements no longer have to pass through the gaze of my critical scrutiny, nor are any filtered out by whatever more nearly automatic checking the mind routinely does when people offer information.

The case also seems to show something beyond the point that testimony can produce belief after the fact. Perhaps the most difficult thing to explain here is why, at the end of her testimony, I believe the proposition that, at the beginning, was an object of suspended judgment. One hypothesis is an unconscious inference, say from the general credibility of her account to the conclusion that this proposition, as an essential part of it, is true. But this sort of inference does not seem adequate to the sometimes global character of the kind of belief formation in question. Perhaps some inferentialist account can satisfactorily explain the data, but there is no necessity to appeal to inference. The cognitive *influence* of standing beliefs, such as a newly formed belief that she is credible, need not proceed through an *inference* from any subset of them. There is a more moderate explanation of the formation of the belief, one that posits both fewer conscious events and, presumably, less expenditure of mental energy. Far from my having to consider one or more grounds for believing her in general or for accepting what she says, and even apart from my forming any belief about her competence on the topic of the attested proposition, her eventually appearing to me as a quite credible person can in some fairly direct way produce in me a general disposition to believe her. This

disposition is strengthened as she speaks with an evident credibility, and at the end its strength overcomes the resistance to belief which was exercised earlier by my constraining beliefs. On the subject she is addressing, I have come to trust her.

There are other (related) possibilities; belief change can occur in many ways. Perhaps people (or some of us) have a credibility scale on which attesters acquire — usually without our conscious attention to the matter — a place that can change, also without our conscious attention. This is an interesting empirical hypothesis I cannot pursue, but all that is crucial is that we see how beliefs based on testimony (which might also be called testimonially grounded beliefs) can be constrained by other beliefs without being inferentially based on them, and how beliefs based on testimony can be formed later than the attestation that is their ultimate source. Perception, too, can produce belief after it begins or, with the help of memory, after it ceases. One may look at a distant shape a long time before believing that it is a tree stump and not a stroller who stopped to gaze at the sky. This same belief could also arise much later, from vividly recalling the image when one is queried as a witness of the scene. The connection in virtue of which a belief is based on a source need be neither direct nor simultaneous nor a result of inference.

Does the analogy with perception warrant concluding that testimony, like perception, is a basic source of belief, in the sense, roughly, that it can produce belief without the cooperation of another source of belief? Consider perception. If I see a painting, this can produce in me a belief that there is a painting before me, without my having a potentially belief-producing experience of any other sort, such as a separate consciousness of an image of a painting.⁸ But I cannot form a testimonially

based belief unless I *hear* (or otherwise perceive) the testimony. Perception is crucial for the formation of testimonially based beliefs in a way that no other belief source is crucial for the formation of perceptual beliefs.⁹ Granted, perception does not produce belief without appropriate background conditions, nor does its being a basic source of belief imply that antecedent beliefs are irrelevant to the epistemic status of perceptual beliefs. If I firmly believe I am hallucinating the moon, then even if I actually see it I may withhold judgment on whether it is out. Although a basic source does not derive its generative power from another source, it is not completely independent of other sources or their outputs.¹⁰

Since testimonially based beliefs need not be inferential, and so need not be grounded on a belief that the attester is sincere (or even on a belief that someone is speaking to one), one may be puzzled by the point that testimony is not a basic source of belief. The puzzlement may arise from failing to appreciate that perception can be a basic requirement for the formation of belief grounded in testimony even if perceptual *belief* is not a requirement. To be sure, in order to acquire, on the basis of testimony, a belief that the speaker lost his temper, I may have to be *disposed* to believe that someone said he did. But that seems to be only because I must perceive this being said, not because I must form the belief (or otherwise believe) that it was said, just as perception of a sentence in a convincing editorial can produce belief of what it says without one's forming the belief that the sentence says that. It is my perception of what is said, typically my hearing or reading it, that is required for formation of a testimonially based belief of the proposition attested to. Understanding and believing testimony that *p* when we hear that testimony may require that in

some sense we *presuppose* the attester said that *p* — so that if (e.g.) we *disbelieve* the attester said that *p*, we will not believe *p* from the testimony. Moreover, there is no need to deny that the brain — or perhaps the mind at a subconscious level — does some kind of information processing, perhaps complex processing, not entailing belief formation. But I doubt that believing *p* on the basis of testimony requires believing that the attester said that *p*, any more than understanding a sentence which says that *p* requires believing that the sentence says that *p*.¹¹ Surely the testimonial acquisition of beliefs does not require the mind to keep double semantic books.

The main positive point here is that testimony can be a source of *basic beliefs*, in the minimal sense of beliefs not based on other beliefs (as opposed to the problematic sense of beliefs with a certain privileged epistemic status). This kind of belief can also be basic knowledge if it meets the conditions for non-inferential knowledge (and so is not based on premises).¹² It can certainly be basic *for* a person in the everyday sense of being central in the person's life. A major epistemological point that the case of testimony shows is that a basic belief — roughly, one basic in the order of one's beliefs — need not come from a basic source of belief — roughly, one basic in the order of cognitive sources. A testimonially based belief need not derive from other beliefs even though its formation depends on a non-testimonial source of beliefs — perception.

III. THE EPISTEMOLOGY OF TESTIMONY

In the light of what has emerged about how testimony produces belief, we are in a good position to ask how testimony yields knowledge and justification and whether it ever yields basic knowledge or basic justification in the way perception and reflection, for instance, apparently do. The

case of knowledge is in some respects easier to deal with than that of justification. Consider knowledge first.

If I do not know that the speaker lost his temper, you cannot come to know it on the basis of my attesting to it.¹³ This is obvious if I am mistaken and he did *not* lose his temper. But suppose I make a lucky guess. Then I give you correct conjectured information, but you are also lucky to be correct and also do not know that he lost his temper. It is a fluke that I get it right; it is even more of a fluke that you get it right, since in your case there are, in addition to the chance of my making a mistake, the other liabilities you escape: of my having distorted the truth, of your having misheard me, of your adding a false detail to my testimony, and so forth. Imagine, on the other hand, that I do not guess at, but incautiously accept, the proposition that the speaker lost his temper, from someone I know often lies about others. Again, I lack knowledge that he lost his temper, even if this time the proposition is true; and again, others cannot know it on the basis of my testimony, which is now ill-grounded in another way. What I do not have, I cannot give.

Justification is different: even if I am not justified in believing that the speaker lost his temper, I can be credible in such a way that you *can* become justified in believing this on the basis of my attesting to it. Consider the two facets of testimonial credibility, the sincerity dimension, concerning the attester's honesty, and the competence dimension, concerning attester's having experience or knowledge sufficient to make it at least likely that if the attester forms a belief that *p*, then *p* is true. Plainly, you can justifiably regard me as credible on the topic of whether the speaker lost his temper if you have good reason to believe that I am honest, possess normal acuity and memory, and was reasonably attentive at the time.

This case shows, then, that whereas my testimony cannot give you testimonially grounded knowledge that *p* without my knowing that *p*, it can give you testimonially grounded justification for believing *p* without my having that justification — or any kind of justification — for believing *p*. This point subtly differs from a claim that may seem equivalent: that *I* cannot (testimonially) give you knowledge that *p* without knowing that *p*, yet *I can* (testimonially) give you justification for believing *p* without having any justification for believing *p*. This claim is at best misleading. In the case of my credible but false testimony that gives you justification for what I attest to, the main point is not that *I* give you justification for believing what I say — that the speaker lost his temper — without having that justification. Rather, the way I attest to the proposition, together with your background justification regarding me and the circumstances, gives you this justification, independently of whether I have it. This is not my giving you justification in the way one gives knowledge. Testimonially based knowledge is received by transmission and so depends on the attester's knowing that *p*. It is natural to say that in the first case you would gain knowledge *through* my testimony, whereas in the second you would gain justification *from* my testimony, but not through it.

Testimony that *p* can convey the attester's knowledge that *p*; it can *produce* in the hearer *a* justification for believing *p*; but it does not in itself convey the attester's justification for believing it. The attester need not even have such justification. This contrast helps to explain the original asymmetry: if I do not know that *p*, my testimony that *p* cannot transmit to you testimonially based knowledge that *p*; but even if I am not justified in believing *p*, my testimony can give you testimonially

based justification for believing it, through providing the main materials for your becoming justified in believing it.¹⁴

The contrast between how testimony produces knowledge, and how it produces justification, in the recipient is reminiscent of a contrast applicable to memory. Just as we cannot know that *p* from memory unless we have *come* to know it in another way, say through perception, we cannot know that *p* on the basis of testimony unless the attester (or someone from whom the attester comes to know it) has come to know it (at least in part) in another way; whereas we can become justified in believing *p* through memory impressions whether or not *p* is true or known,¹⁵ and we can become justified in believing *p* on the basis of testimony whether or not the attester has true belief or knowledge of it or even justification for it. Moreover, with testimonially based knowledge, as with memorial knowledge, there must apparently be at least one epistemically sound chain from the belief constituting that knowledge to a source of the knowledge in some other mode, such as perception; but with testimonially based justification, as with memorial justification, what seems essential is the present epistemic situation of the memorial subject or testimonial recipient, such as the contents of apparently memorial consciousness and the content and justifiedness of background beliefs. Memory and testimony can (in different ways) both generate justification; but they are not generative with respect to knowledge: characteristically, the former is preservative, the latter transmissive.¹⁶

There is another way justification and knowledge apparently differ in their relation to testimony. Suppose I *am* justified in believing *p*, but you have no justification of your own for believing *p* or for taking me to be credible on the topic. To vary the conference example, imagine that

in passing, and without giving evidence, I say that three speakers lost their tempers, and your background information neither disconfirms nor supports this claim or my credibility in the matter. Here justification follows your lights rather than mine: my would-be contribution to justifying you in believing p is undermined by your lack of justification for thinking my testimony is credible or for believing p on some other ground. Receptivity to justification sometimes requires already having some measure of it, say for believing the attester credible or for believing p or for both. (The justification might also be global if one may be justified in believing, in the absence of specific grounds for thinking otherwise, that serious testimony tends to be true.) Knowledge seems somewhat different on this score: to know something through my attesting to it in expression of my own knowledge, you do not have to know that I am credible; it is surely enough that you have some reason to believe I am and no reason to doubt it. I believe it is enough that you presuppose it and have no reason to doubt it. Surely you can know that it is nine o'clock, on the basis of my knowing this and telling it to you, even if you simply find me a normal-seeming person with a normal-looking watch and take me to be credible.¹⁷ And why indeed must you meet any more than a negative condition: not having any reason to doubt my credibility? We are talking about a case where I know that it is nine o'clock, attest to this *from* my knowledge of it, and thereby produce your (true) belief that it is nine. These conditions seem normally sufficient for you to know that it is nine.

This conclusion seems plausible independently of any specific account of knowledge, but it is especially plausible from an externalist, reliabilist perspective.¹⁸ The idea, in part, is that testimony can be (semantically embedded) evidence

that plays an intermediary role in a reliable belief-producing process. It can do this whether or not the recipient forms beliefs supporting the attester's credibility, draws inferences about the competence of the attester or the likelihood of p , or has other positive grounds supporting credibility.

It is, to be sure, difficult to find cases of knowledge that p grounded in such a natural, reliable process but *not* accompanied by these or other grounds yielding justification for p . But consider this. I receive a letter in August in which, in an aside, Gisèle tells me she will attend a meeting in December. I believe her and (setting skepticism aside) can now know she will attend. In October I get another letter from her that does not mention the meeting. In late November I am asked if she will attend, and I say — from memory — that she will. Surely my testimony can enable my hearer to know that she will attend, even if I do not recall how I came to think this, say because I can now remember only her second letter. Still, I *remember* that she will be attending, which presumably implies that I know it. I might also have inductive grounds to think that if I seem to remember something like this, I know it; but I doubt that one *must* have such grounds. Perhaps I could even lack anything properly called a justification for my belief, yet (on the basis of my excellent memory) still know the proposition in question anyway.

A natural objection to this credible-unless-otherwise-indicated view of testimony as a ground for knowledge is that in our example one's evidence is so scanty that one would at best have only some reason to believe Gisèle will attend the meeting, or that it is nine o'clock. But is this true? Admittedly, that one has some reason to believe the proposition may be all one can *show* from one's evidence or from what one feels certain of. Still, surely I in fact do

know that it is nine and that Gisèle will attend the meeting; and if I sincerely tell you she will, you can thereby know that she will. An epistemically sound chain connects your belief with her firsthand testimony. That appears to hold even where you simply have no reason to doubt my credibility. One theory as to why it holds is that (some) testimony can serve as a kind of stand-in for our own perception, and sometimes we may as safely trust the word of others as our own senses. If testimony can never so serve — if it is never a reliable social intermediary between its recipient and the world it represents — then in scientific matters and even in cases where we rely less than that on others, we know far less than we commonly suppose.

If these points about testimony as a source of justification and knowledge are sound, at least two principles applicable to testimony emerge as plausible. Concerning knowledge, we might say that at least normally, a belief that *p* based on testimony thereby constitutes knowledge (*i.e.*, counts as testimonially based knowledge) provided that the attester knows that *p* and the believer has no reason to doubt either *p* or the attester's credibility concerning it. From the point of view of reliabilism, one way to put main idea here is to say that normally, reliable grounding of true beliefs is transmissible across testimony.¹⁹ Regarding justification, we might say that at least normally, a belief based on testimony is thereby justified (*i.e.*, counts as testimonially justified) provided the believer has overall justification for taking the attester to be credible regarding the proposition in question. *Having* this justification implies a capacity for inference, say about the attester's reliability, but not making an actual inference, conscious or unconscious. In any event, the first principle suggests that testimony serves — or can serve — as a ground of knowledge in an external way;

the second principle suggests that it serves as a ground of justification only if the recipient has a measure of justification initially.²⁰ (Further support for this contrast and its implications for language-learning are pursued in Section IV.)

Whatever the exact conditions under which testimony grounds knowledge or justification, we have so far found no reason to doubt that under some conditions testimony can yield both knowledge and justified belief in its believing recipient. It appears, however, that it cannot be a basic source of knowledge, since one cannot know something on the basis of testimony unless the attester knows it. Testimony transmits knowledge but does not, as such, generate it. It may generate knowledge *incidentally*, as where, by saying in a surprised tone that it is four in the morning, I give a fellow insomniac knowledge that I am awake. This knowledge is grounded not on the testimony but on the mere hearing of it, and that kind of knowledge could as easily be conveyed by humming.

Testimony, like inference, can exist in indefinitely long chains. An attester might know that *p* on the basis of a third person's testimony that *p*, who might know it on the basis of a fourth person's testimony rather than from a generative source such as perception. How far back can this go? There is surely some limit or other in each situation, as opposed to an infinite regress, and there would be a limit even apart from the time required for receiving testimony, as we can see from noting a second respect in which testimony is not a basic source of knowledge. Surely if no one knew anything in a non-testimonial mode, no one would know anything on the basis of testimony. This is not to say that everything known (even in part) on the basis of testimony must be known by someone *entirely* on another basis. Consider a map cooperatively drawn by a team: each of the team

knows some part of the charted territory firsthand, but none knows its overall shape except (largely) through the testimony of the others. Thus, although testimonial knowledge seems ultimately to depend on non-testimonial knowledge — say, knowledge grounded in perception or reflection — not everything testimonially known is also non-testimonially known. To enable others to know something by attesting to it, I must know it myself, and my knowledge must ultimately depend at least in part on non-testimonially based knowledge, such as knowledge grounded in seeing that the clock says nine; but working together we can provide testimony that takes knowledge beyond what is discernible from any proper subset of our other sources.²¹

One might try to reinforce the view that testimonially based knowledge depends on other knowledge, as follows. Even if someone attests to *p* in my presence, I would have to *perceive* this and to know some supporting proposition, say, that someone has credibly said that *p*. Once the point is put this way, however, it quite evidently cannot stand unqualified. The required kind of perceiving does not entail forming a belief of this sort, perhaps not even the specific (partly) perceptual belief that someone said that *p*. The case shows, then, only that testimony is *operationally* dependent on perception, not that it is *inferentially* dependent on perceptual belief. It requires perceptual raw materials, but not believing any premises about those materials.²²

If testimonially based knowledge and justification do not depend on premises that support the testimonially grounded belief — say premises confirming the credibility of the attester — this explains how such a belief can be basic. Testimony as a source of knowledge and justification need not be basic relative to other sources of knowledge and justification in order for beliefs grounded in testimony to be basic in the

order of beliefs. That point, however, is different from the point made above — that the attester's knowledge that is the basis of the hearer's knowledge cannot ultimately be grounded wholly in testimony. Moreover, knowledge that is directly and wholly based on testimony for the recipient cannot be ultimately based wholly on testimony for the giver: the first would have no "right" to transfer it to the second, just as I would have no right to give someone what I had merely borrowed from someone else, who had merely borrowed it from a third person, and so on to infinity.

The point that testimonially grounded beliefs can be non-inferential and, in that way not dependent on premises, is important. But the operational dependence of testimony has both epistemological and conceptual significance. For if one did not have perceptual *grounds* for knowledge, or at least for justified belief, that someone has attested to *p*, one could not know *p* on the basis of the testimony. This is an epistemic dependence not paralleled in the case of perception.²³ It shows that even if testimonially based knowledge need not inferentially depend on *having* knowledge grounded in another mode, it does epistemically depend on having grounds, from another mode, *grounds for* knowledge in that other mode. Testimonially based knowledge thus depends on — and in this sense presupposes — the availability, or one might say the potential cooperation, of another source of knowledge, even if such knowledge does not require the actual operation of that source in yielding beliefs of the premises it stands ready to supply.

On this point, the case with justification is similar. I cannot acquire justification for believing something on the basis of testimony unless I have some degree of justification for believing that the attester is credible, as well as for certain other propositions, such as that I heard the testimony correctly.

This justification cannot come entirely from testimony. Jane may assure me about Bert, but what if I have no justification for taking Jane to be credible? Other grounds of justification, such as perception or memory, must at least tacitly cooperate. But their cooperation can be justificational without being inferential: they need not produce in me beliefs of premises from which I infer that the attester is credible; they simply give me a justification for framing such premises if I need them.

It may help to describe one of my overall conclusions — that testimony is not a basic source of knowledge or justification — as reflecting a contrast between a central pattern in the psychology of testimony and a major aspect of its epistemology. Often, when we hear people attesting to various things, we just believe these things, non-inferentially and even unreservedly. But this natural psychological process yields knowledge and justification only when certain epistemic conditions are met: there must be grounds, from another source, *for* knowledge and justification, even if there need be no knowledge or justified beliefs of the propositions warranted *by* these grounds. In the case of testimonially based knowledge, there must be knowledge, even if not necessarily justification, on the part of the attester, whereas in the case of testimonially based justification there must be justification, even if not knowledge, on the part of the recipient. The first requirement concerns the attester's epistemic situation with respect to the proposition attested to; the second concerns the recipient's epistemic situation with respect to the attester, or the proposition, or both.²⁴ Together, the requirements indicate how, although, psychologically speaking, testimony is a source of basic beliefs, it is not, epistemically speaking, a basic source of knowledge or justification.

IV. THE CONCEPTUAL AND DEVELOPMENTAL CENTRALITY OF TESTIMONY

The epistemic dependence of testimony on other sources of belief must be squared with the plain fact that tiny children learn — and thereby acquire rudimentary knowledge — from what others tell them even before they are properly said to have grounds for knowledge or justification regarding the attester's credibility. Consider teaching color words. After a time, the child has learned that the sofa, say, is red. But the tiny child has no concept of credibility or other notions important in gaining justification from testimony and, initially, insufficient experience to be justified in believing its teachers are credible. On the view developed here, this point is quite compatible with the child's acquiring knowledge.

The first thing to note in explaining this compatibility is that there are at least two ways to learn from testimony: one can learn (in the sense of coming to know) the content attested to, and one can learn something shown by the testimony itself. The first case is *learning that*, i.e., that something is so; the second is *learning of or about* something (and may extend to learning *how*). A tiny child learning the basic colors is not, primarily, learning *that* (say) the sofa is red, but, above all, becoming aware of redness as the color of the sofa. In introducing 'red', the parent only incidentally attests to the proposition that the sofa is red, and the child can learn the main lesson without conceptualizing the sofa as such at all. The point is to pair 'red' with an instance of what it stands for, in order to teach the child that word (or, say, what color red is). The former case — the propositional testimony — may result in propositional knowledge; we would thus have propositional learning. The parental introduction of vocabulary — ostensive testimony — may result in conceptual learning.

It is important to see that the success conditions for the introductory function of language apparently require that for the most part the attestations are at least approximately true. Normally, a child cannot learn 'red' unless, in teaching the child English, a goodly proportion of the objects to which 'red' is applied are red.²⁵ This does not of course show that most testimony is true, but it does imply that *if* communication is occurring when testimony is given, then one may reasonably assume that both attester and recipient have at some point benefited from a background in which a substantial proportion of attestations of a certain sort were true. This point in turn may provide *some* support for taking testimony to be normally credible, at least where the attester is communicating with the recipient.²⁶

Commonly, belief and knowledge are acquired at the time concepts are initially understood. It is not self-evident, however, that conditions sufficient for conceptual learning imply propositional learning.²⁷ Testimony easily produces both together, but if it cannot produce the former without the latter, it apparently can produce the latter without the former. It is, however, difficult to say when a child begins to form beliefs, as opposed to mimicking its elders by saying things that in adults would express beliefs. Let us suppose both that it is very early in life and that many of the first beliefs — or, more likely, initial clusters of beliefs — formed are based on what adults tell the child is the case. Must this pose a problem for the epistemology of testimony suggested here? Again, it will help to consider knowledge and justification separately.

Very early in their lives we speak of babies and children as knowing things. One might object that such talk is simply projective: *we* would know in their situation if we behaved in the relevant way, so we say the child does. This line is defensible,

but suppose for the sake of argument that by the time children begin to talk they do know certain things. We may surely speak of their learning — that the milk spills when tipped, that the stove is hot, and so on — and learning (in general) implies knowledge. At about the same time, children begin to learn things on the basis of testimony, for instance that steaming water is hot.

If, as seems a reasonable assumption, gaining testimonially based knowledge normally requires only having no reason to doubt the attester's credibility, then the view proposed above encounters no difficulty. If a tiny child perhaps *can* have no reason for doubt, at least the child has none; nor need there need *be* any reason, since much testimony is highly credible. A stronger requirement might seem appropriate: that the child have (possibly in a preconceptual way) some ground for taking the speaker to be credible, for instance experiences repeatedly bearing out what the speaker says. Perhaps one could sketch, for such a correlational ground, conditions elementary enough to fit the rudimentary character of the child's knowledge. I doubt, however, that testimonially based knowledge requires such a ground.

With justification, it may be harder to deal with the case of tiny children. But notice that we do not use the vocabulary of justification, as compared with that of knowledge, for as conceptually undeveloped creatures. For a child to be justified in believing the sofa is red, the child would have to be capable not only of having a ground for believing this but, correspondingly, of failing to have one and believing this anyway, thereby being *unjustified*. Arguably, by the time we may properly speak of children in this two-sided way (which is perhaps soon after they can speak), they do have a sense of the track record of adults in giving them information

that bears out in their experience. If parents say it is cold outside, it is; and so forth. Children do not, of course, *use* the notion of credibility; but they can understand related concepts, such as those needed for comprehending that Mommy is right about things and baby brother must be corrected. The more natural it is, and the less figurative it seems, to speak of growing children as acquiring justification based on testimony, the easier it is to find some elementary way in which they can satisfy the epistemic and justificational conditions set out above, such as making discriminations that enable them to assess what they are told and gaining some sense of the testimonial track record of those around them.

None of this is to say just when knowledge or justification enters the scene in human development, whether through testimony or through their more basic sources. These are questions largely for psychologists; a philosophical account of the epistemology of testimony need only leave room for plausible answers. The theory outlined here suggests that knowledge arises before justification. Testimonially based knowledge seems to be part of the cognitive foundation from which children acquire the evidence they need to achieve justification for accepting testimony. Perhaps this point is partly explained by the picture of conceptual learning I have sketched in describing ostensive testimony. In rough outline, the idea is this. In the natural developmental order of things, content goes from the outside in, justification from the inside out. Without the conceptualization that arises from the testimonial introduction of content, there would be no internal ground sufficiently rich to nurture justification. Particularly in children, testimonially based knowledge arises inextricably bound up with conceptualization. This external epistemic success by some testimony is a precondition for the internal

evidences that give a child justification for accepting other testimony.

V. THE EPISTEMIC INDISPENSABILITY OF TESTIMONY

The view that testimony is not a basic source of justification or knowledge is easily misunderstood. It does not imply that testimony is any less important in normal human life than a basic source. A source of knowledge and justification can be indispensable in life even if it is not basic. It may be that no normal human being would know anything apart from receiving testimony.²⁸ Suppose there is no innate knowledge and (though I want to leave this open) that one knows nothing before learning a language. Then, unless one could acquire linguistic competence without the help of others, they would be essential in one's coming to know anything at all. Moreover, if one tries to imagine what would be left if all the knowledge and beliefs one acquired on the basis of testimony were eliminated, it seems impossible to accomplish the sorting. Even beginning the task of putting aside what one knows in the indicated way suggests that one would at best be thrust back to a primitive stage of learning.

These and other points brought out above can help in appraising Hume's influential view of testimony as capable of grounding knowledge only on the basis of a kind of legitimation by other sources. The view can be applied to the overall practice of relying on testimony, to testimony by a particular group or individual, and to an individual attestation. In the first, global case a main question is whether we can construct a blanket justification for considering human testimony reliable. In the second, local case (some instances of which are more wide-ranging than others), some testimonially based beliefs may be

presupposed in justifying one or more others. The same holds in the third, focal case, where a single belief is in question. Hume is a good point of departure for reflection on any of these justification problems. My concern here is mainly with the status of individual beliefs, but what follows will bear on wider justification problems as well. For Hume, any "assurance" grounded on testimony "is derived from no other principle than our observation of the veracity of human testimony, and of the usual conformity of facts to the reports of witnesses."²⁹ Leaving aside whether this claim implies that testimonially based beliefs must be inferential, is it true that for every proposition one justifiably believes on the basis of testimony, one must have a justification from other sources?

I have already urged a negative answer to the counterpart question for knowledge, but justification may differ in this respect. Since these non-testimonial sources would include justified memory beliefs, they could contribute propositions originally based on testimony that is independent of the testimony needing support. Much of what is stored in our memories we have come to believe through testimony. On the assumption that what was testimonially learned and is memorially preserved can justify believing a proposition someone attests to, it may be that many people reach a point at which, for everything they justifiably come to believe on the basis of testimony, they do have *some* degree of justification grounded independently of the testimony in question. Many of my beliefs about conditions under which testimony is credible, for instance, are preserved in my memory; thus, even if I have no evidence regarding *p*, I may, in the circumstances of an attestation, be justified in thinking the attester's saying it is some reason to believe it. Some of these memorially justified beliefs, however, depend for their justification on my

previously being justified in believing something on the basis of testimony, as where I accept one person's testimony in checking on another's. There may be, then, a kind of circularity in appealing to memorially justified beliefs originally justified on the basis of testimony, as support for other testimony.

It might be argued that since memory is a basic source of justification and since testimony itself is a source of non-inferential justification, there need be no vicious circularity. I find this claim plausible, though by no means obviously correct.³⁰ Consider a news program announcing an earthquake in Indonesia. On the basis of memory, I have a sense of the track record of the network and of the geological situation in Indonesia, a sense of how often errors of that kind are made, etc. Such a justification is far from conclusive, but it apparently need not be inadequate because of vicious circularity.

Might one go further than the modest project just described and fashion a global justification encompassing any of the entire set of beliefs that are testimonially based (or originally believed on the basis of testimony and retained in memory)? Could one even produce this global kind of justification for one's own testimonially based beliefs? Suppose one did not grant that some testimonially grounded beliefs can justify other such beliefs and tried to suspend judgment on all one's testimonially grounded beliefs (assuming such massive suspension of judgment is even possible). Surely this comprehensive justification project would fail.³¹ It is doubtful that we can always avoid relying on testimony, at least indirectly, in appraising testimony. One's sense of an attester's track record, for instance, typically depends on what one believes from testimony, as where one news source serves as a check on another.

There seems to be no general procedure by which one can produce an overarching

justification for the proposition that the whole set of our testimonially based beliefs (or even a major proportion of it) is justified. But there is no need to attempt that global project or even its local counterpart for a given individual, and the epistemology of testimony I have sketched implies, on this matter, at most that testimonially based beliefs that *are* justified be *individually* justifiable for the believer at least partly in terms of the “basic” (or other favored) sources of justification, such as perception and reflection.³² With testimonially based knowledge, not even this seems required. The conditions by which knowledge is testimonially transmitted seem not to depend on justification in the same way: although testimony that *p* by someone who knows that *p* may be defeated by justified beliefs to the contrary, in the absence of such beliefs the recipient normally acquires knowledge even without having justification regarding the credibility of the attester. If this were not so, it would be at best difficult to explain how children learn language in the way they do.

VI. CONCLUSION

Testimony is a pervasive and natural source of beliefs. Surely many of the beliefs it grounds are justified or constitute knowledge. They may even constitute basic knowledge or basic belief, both in the (moderate) sense that they are not grounded in premises and in the sense that they play a pivotal role in the life of the believer. We might thus say that testimonially based beliefs are psychologically, epistemically,

and existentially basic. But they are epistemically basic only in the sense that they do not inferentially depend on knowledge or justified belief of prior premises. They are epistemically dependent, in a way perceptual beliefs are not, on one's having grounds for knowledge or justification, and they are psychologically dependent on one's having at least some non-propositional ground — such as hearing someone speak — in another, non-testimonial experiential mode. But this source-dependence does not make testimony premise-dependent. Testimony is a generative source of beliefs: it produces new ones other than through our simply building inferentially on those we already have. Testimony is not (except incidentally) a generative source of knowledge; it does not produce new knowledge independently of building on knowledge someone already has. And if I have been right, it is quite different as a source of knowledge, which it transmits, than as a source of justification, which it produces only in cooperation with justification the recipient already has. Once these points are appreciated, we can understand its essential role in concept acquisition and language learning. For if conceptual and linguistic knowledge could not be acquired in this elemental testimonial way, we would never have the cognitive materials necessary for justification. This primeval, elemental role, in turn, helps to explain why so much testimony must be regarded as credible. Its initial success in producing knowledge early in our lives may indeed be a condition for our intelligibly questioning that very success when we have learned to be skeptical.³³

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NOTES

1. Among these are C. A. J. Coady, *Testimony* (Oxford: The Clarendon Press, 1992); B. K. Matilal and A. Chakrabarti, eds., *Knowing from Words* (Dordrecht: Kluwer, 1994); Fred Dretske, "A Cognitive Cul-de-Sac," *Mind* 81 (1982); Elizabeth Fricker, "The Epistemology of Testimony," *Proceedings of the Aristotelian Society* Supplementary Vol. 61 (1987) and "Against Gullibility," in Matilal and Chakrabarti; John Hardwig, "Epistemic Dependence," *Journal of Philosophy* LXXXII, 7 (1985); Ernest Sosa, "Testimony and Coherence," in his *Knowledge in Perspective* (Cambridge: Cambridge University Press, 1991); Alvin Plantinga, *Warrant and Proper Function* (Oxford: Oxford University Press, 1993); Mark Owen Webb, "Why I Know about As Much as You," *Journal of Philosophy* XC (1993) (in part a critique of Hardwig); and Jonathan E. Adler, "Testimony, Trust, Knowing," *The Journal of Philosophy* 91 (1994) (in part a critique of Webb).
2. For a wide-ranging, historically informative account of what constitutes testimony and of numerous epistemological problems surrounding it, see Coady, *op. cit.*
3. Perhaps 'testimony' may apply where the speaker does not even seem to care about conveying information but is spontaneously describing witnessed past events in a detailed, connected fashion and accurately portrays them. Perhaps saying something may count as testimony so long as it is, in a certain way, appropriate to conveying information. We do not need a detailed analysis here, and the rough characterization suggested in the text begs no important questions.
4. Cf. Fricker's thesis in "Against Gullibility" that "a hearer should always engage in some assessment of the speaker for trustworthiness. To believe what is asserted without doing so is . . . gullibility" (p. 145); and her reference to "knowledge through testimony as inferential knowledge (in the sense that it must be backed by a substantial justification," (p. 156) (though "monitoring for signs of untrustworthiness in a speaker is usually conducted at a non-conscious level" — p. 150). The view that testimony-based knowledge is inferential is not new — or confined to Western Philosophy: "Turning to the classical Indian side . . . The two well-entrenched philosophical traditions, the Vaisesika and the Buddhist, allow knowledge from words . . . but include it under inference." See B. K. Matilal, "Understanding, Knowing and Justification," in Matilal and Chakrabarti, *op. cit.*, p. 359.
5. For knowledge and justified belief, I think the belief in question must be based, in a partly causal sense, on the relevant testimony. I defend this point for relevantly similar cases in "The Causal Structure of Indirect Justification," *The Journal of Philosophy* 80 (1983).
6. Reid spoke eloquently on this: "The wise author of nature hath implanted in the human mind a propensity to rely upon human testimony before we can give a reason for doing so. This, indeed, puts our judgment almost entirely in the hands of those who are about us in the first period of life." See the *Essay on the Intellectual Powers of Man*, in *Thomas Reid's Inquiry and Essays*, edited by Ronald Beanblossom and Keith Lehrer (Indianapolis: Hackett, 1983), p. 281.
7. I do not claim to have decisively established these (empirical) points about the structure of testimonially grounded belief, but they are psychologically plausible and are certainly consistent with the concept of such belief. Supporting considerations are provided by Webb, *op. cit.*
8. Granted, I must have (and so must memorially retain), a concept of a painting; but this merely conceptual memorial state is not a potential source of belief (which is not to say it can play no causal role in belief-formation).
9. Three points may help here. First, telepathic or other strange receptions of testimony may, at least for our purposes, be construed as perceptual. Second, granting that one cannot form perceptual beliefs without having any additional beliefs needed to possess the concepts required to understand the perceptually believed proposition, this does not imply the *kind* of dependence on

another belief source exhibited by that of testimony upon perception. Third, supposing perception cannot occur without some manifestations in consciousness (which is itself a source of beliefs) here consciousness is an element in perception in a way perception by an audience is plainly not an element in testimony. Testimony need not be received.

10. Similarly, a basic belief, such as one derived from testimony, can be credible apart from positive (*e.g.*, inferential) dependence without being completely independent of other beliefs, say as potential defeaters. The relevant (and often neglected) distinction between positive and negative epistemic dependence is developed in my "Foundationalism, Epistemic Dependence, and Defeasibility," *Synthese* 55 (1983). That paper applies the distinction to the quite different view of epistemic dependence given by Hilary Kornblith in "Beyond Foundationalism and the Coherence Theory," *The Journal of Philosophy* 80 (1977), 597-611.

11. And, to be sure, no less requires it. To any who want to attribute a belief here, I would suggest that the reasons for doing this can be adequately accommodated by holding that there is a *disposition to believe* it (we could call it an *implicit* or *presuppositional* belief if we bear in mind its special character). My "Dispositional Beliefs and Dispositions to Believe," *Nous* 28, 4 (1994), defends this suggestion.

12. The relevant notion of basic knowledge is not a strong one; it is, *e.g.*, unrestricted as to content and relativized to time, so that what is basic for a person at one time can be grounded in premises at another, and it allows defeat by counterevidence, so that even basic knowledge can be unseated.

13. You might come to know it from something *about* my testimony: perhaps I give it nervously and you know the nervousness reveals my being shaken by the fit of temper, which I have since half forgotten and attest to conjecturally. This would be a case of belief merely *caused* by testimony but not *based* on it. One requirement for a belief's being based on testimony is the believer's holding the proposition because it was attested to, as opposed, *e.g.*, to *how* it was attested to. Cf. Sosa, *op. cit.*, pp. 216-17. This point can be applied to an intermediate case, in which one knows that a speaker systematically distorts a certain topic, *e.g.*, exaggerating the person's accomplishments. Then, like an accompanist reading in one key and playing in another, one can correct the error. This can yield not only knowledge based on something about testimony but knowledge semantically derived from testimony. Other cases in which testimony in some way produces knowledge not strictly based on it in the standard sense can be imagined from these examples, but I must leave them aside here.

14. The qualifier 'testimonially based' is crucial: suppose I attest, in a baritone voice, that I have a baritone voice, but do not know this fact because I falsely believe I have a tenor voice; then you can come to know, *from* my testimony, but not on the basis of it (its content), the proposition to which I attest. The same point holds for justification in place of knowledge. One might also say that you come to know *through* my testimony in a weak sense of 'through' not implying that the content of what I attest is crucial. Further, content, but not *my attesting it*, may be crucial: if I present an argument you know I barely understand, you can come to know its conclusion, not because I attest to it or the premises, but on the basis of your realizing, in the light of background knowledge, that they are true and entail it. This would be *knowledge based on the content of testimony* but not testimonially grounded knowledge.

15. I develop and defend this contrast in "Memorial Justification," *Philosophical Topics* 23 (1996).

16. I leave open whether knowledge transmitted by testimony can be as *well-grounded* as that of the attester (though I am inclined to doubt it can be). By contrast, so far as knowledge goes, "a testimonial chain is no stronger than its weakest link," as Plantinga puts it (*op. cit.*, p. 84). He is speaking of warrant, roughly what makes true belief knowledge; and if the point holds there too, then justification differs from warrant on this score as it does from knowledge.

17. If this is so, it may show something else: on the assumption that you cannot know a proposition on the basis of premises you do not also know, this case would show that your testimonially based knowledge is not inferential, since the would-be credibility premise is not known.

18. For instance, of the kinds we find in Fred Dretske's *Knowledge and the Flow of Information* (Cambridge: MIT, 1981); Alvin I. Goldman's *Epistemology and Cognition* (Cambridge: Harvard University Press, 1986); and William P. Alston's *Epistemic Justification* (Ithaca: Cornell University Press, 1989), *e.g.*, ch. 7.

19. The normality qualification is needed in part because of problems not peculiar to testimony, concerning what constitutes knowledge. For an indication of how difficult these can be in relation to testimony and other potential sources of knowledge, see Fred Dretske, "A Cognitive Cul-de-Sac," *Mind* 91 (1982), 109-11, and Coady's discussion of this paper, *op. cit.*, 224-30. It should also be noted that what I call the *basis* of a belief does not include all the conditions necessary for it; but explicating this distinction is a major task that I cannot attempt here.

20. These principles are formulated cautiously: they allow, *e.g.*, that abnormal circumstances may produce exceptions; that the testimonially based belief be inferential; that the resulting justification not be strong but only "adequate" for reasonable belief; that the subject have justification for or knowledge of *p* from some *other* source as well; that the recipient's justification regarding the attester's credibility be weak (though not defeated); and that the concept of justification be chiefly internal or chiefly external. The epistemic principle can be broadened by specifying that the recipient has no *overall* reason for doubt, but I leave that qualification open.

21. The map case is from Plantinga, *op. cit.* p. 87. This differs from the case in Hardwig, *op. cit.*, in that whereas what any of the cartographers knows (largely) testimonially is equivalent to a *conjunction* of items each known non-testimonially by one or more others, the cooperative scientific case is more complicated. Some coauthors may lack non-testimonial knowledge not only of a major conclusion but of both grounds for it and principles of reasoning by which they can be seen to support it. The special principles applying to these and other cases of mixed grounds are epistemologically important, but cannot be pursued here.

22. Here I differ from Fricker, who holds that the recipient must perceptually believe "that the speaker has made an assertion with a particular content . . . capable of being knowledge." See "The Epistemology of Testimony," cited in note 1, p. 70.

23. I grant that perceptual justification depends in a *negative* way on actual or possible justification from other sources (including other perceptual ones), since it may be defeated through their conflicting deliverances; but here the dependence is positive.

24. The epistemology of testimony suggested here may be more stringent than Reid's. For an interpretation and defense of the apparently Reidian view that testimonially grounded beliefs need not depend even for their justification on other sources of justification, see Webb, *op. cit.*

25. Strictly, they need only look red, as where white objects are flooded by red light. Arguably, one could even teach 'red' by producing only hallucinations of the color.

26. The point can be connected with arguments such as some Donald Davidson gives to show that most of our beliefs must be true, but it does not imply that stronger conclusion. For discussion of this and other Davidsonian hypotheses, see Coady, *op. cit.*, esp. ch. 9. Cf. Fricker: "It is plausible that 'Make no unforced attributions of insincerity', and the parallel principle for false beliefs, are among the NIs [norms of interpretation]. But their being so does not ensure that the best interpreting description of an individual will show her as being mainly sincere, or as having mainly true beliefs . . . it is indeed a contingent empirical fact, not guaranteed by any concept-constituting norms . . . that, in some given linguistic community, nearly all apparently sincere

utterances are so; and that the speakers in the community nearly always have true beliefs . . . [though] there is an essentially vague lower bound on the possible incidence of insincerity” and of false belief. (“Against Gullibility,” pp. 152-3).

27. It is difficult to see how one could, through testimony, produce conceptual learning without producing *some* belief. Could a child become acquainted with what redness is in connection with being told the sofa is red, yet not acquire any belief, *e.g.*, believing (*de re*) the sofa to be red?

28. One reason this point is restricted to normal human beings is that it seems possible for a human being to be created artificially, as a full-blown adult, in which case much knowledge of abstract propositions and perhaps of other sorts, such as knowledge of the perceptible external environment, can occur before any testimony is received.

29. *An Enquiry Concerning Human Understanding*, L. A. Selby-Bigge, ed. (Oxford: Oxford University Press, 1902), sect. 88.

30. For helpful discussion of how testimonial beliefs may be justified and their similarity on this score to memorial beliefs, see Sosa, *op. cit.*, esp. pp. 218-22.

31. We would certainly not be able to appeal to any significant segment of scientific knowledge, for there we are heavily dependent on testimony, written and oral. A plausible case that this dependence is even greater than it seems is made by Hardwig, *op. cit.*

32. For supporting considerations favoring the possibility of the local justification and opposing that of a global one, see the papers cited by Fricker in note 1 and her, “Telling and Trusting: Reductionism and Anti-Reductionism in the Epistemology of Testimony: C. A. J. Coady’s *Testimony: A Philosophical Study*,” *Mind* 104 (1995).

33. For helpful discussions of earlier versions I thank William Alston, Elizabeth Fricker, Hugh McCann, Lex Newman, Frederick Schauer, Walter Sinnott-Armstrong, Ernest Sosa, Mark Webb, and a lively audience at Syracuse University. I also benefited from a detailed report by an anonymous reader for *APQ*.