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**TAKE IT FROM ME**

**The Epistemological Status of Testimony**

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We acquire many of our beliefs from others, often on the basis of their say-so alone. When a stranger introduces himself, we seldom demand to see his bona fides. We take it that he knows his own name and is honest in reporting it. When a lecturer declares that Beethoven never heard his ninth symphony, or that the Greeks discovered irrational numbers, or that gold dissolves in aqua regia, his students dutifully record these nuggets in their notebooks and parrot them back on exams. Rarely are they pesky enough to ask for evidence. Our cognitive range would be sorely restricted if we couldn't glean information from one another. Still, questions about warrant remain. What supplies the epistemological justification or entitlement for taking people at their word?

One familiar answer is inductive: A testifier assertively utters sentence  $\ulcorner p \urcorner$ . If I have adequate inductive evidence that she is trustworthy vis à vis sentences like  $\ulcorner p \urcorner$  and I believe that  $p$  on the basis of her utterance, I am warranted in doing so. Another is a priori: A testifier assertively utters the sentence  $\ulcorner p \urcorner$ . We know a priori that people normally tell the truth. So, absent any local reasons for doubting this particular speaker, if I believe that  $p$  on the basis of her utterance, I am warranted in doing so. Neither of these is satisfactory. The inductive answer delivers too little; the a priori answer delivers too much. To understand the message a speaker's testimony conveys and the level of epistemic warrant it transmits requires sensitivity to contextual factors that affect both the content and strength of the claim. Or so I will argue. If (roughly) Gricean maxims characterize informative exchanges, shared assumptions about institutions and practices buttress and frame our inductive evidence and thereby enable testimony to convey information and transmit

warrant. Although I explore the role of the maxims and illustrate their utility, I do not purport to offer a knock-down defense of them. That would require another paper. Here the maxims function as working hypotheses. If my argument succeeds, it shows that they work rather well. Such success, I have argued elsewhere, affords a hypothesis some measure of epistemic warrant.<sup>1</sup> I will not, however, argue that point here. Readers who demand a stronger level of warrant, should construe my discussion hypothetically: if something like the Gricean maxims are epistemically sound, then testimony has the capacity to transmit warrant for the reasons I give. Although I adduce Gricean considerations to undercut Coady's a priori account,<sup>2</sup> my criticism of Coady is not an end in itself. I use it to motivate an investigation into the ways pragmatic factors circumscribe both the content of a speaker's testimony and the level of warrant it bears. In different contexts, the assertive utterance of the same sentence can convey different information, and transmit different levels of warrant. To assign the right content and level of warrant to a speaker's testimony, we need to interpret it in light of presuppositions about relevant matters of fact and institutional frameworks, as well as the goals of the interchange and the level of warrant required to promote those goals in that context.

Let me begin by marking out the domain I want to investigate. It consists of utterances and inscriptions that purport to convey information and transmit warrant for the information they convey. Like other epistemologists, I call such utterances and inscriptions testimony. This usage diverges from the ordinary use of the term. Some legal testimony consists of statements of known fact, uttered 'for the record'. No information is, or is thought to be conveyed. Statements of routine matters of fact, like 'Soup is in aisle three', seem too

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<sup>1</sup>See Catherine Z. Elgin, *Considered Judgment*, Princeton: Princeton University Press, 1997, pp. 101-146.

<sup>2</sup>C. A. J. Coady, *Testimony* (Oxford: Clarendon Press, 1993), pp. 152-176.

pedestrian to qualify as testimony as the term is ordinarily used. Still, if such statements purport to convey information and transmit warrant, they count as testimony as epistemologists use the term.

Attempts to convey information and transmit warrant do not always succeed. Sometimes people impart falsehoods. Sometimes they lack warrant for their claims. Sometimes the audience already knows the information being imparted or fails to understand or to believe it. And so on. Because such shortfalls occur within the domain I want to investigate, I characterize testimony in terms of a function it *purportsto* perform. Felicitous testimony conveys information and transmits warrant. Infelicitous testimonypurports to do the same but for one reason or another does not succeed.<sup>3</sup>

Not all discourse that engenders warranted belief qualifies as testimony. Argument, for example, does not. Although both testimony and argument consist of declarative sentences and have the capacity to induce belief, they differ significantly in epistemological character. An argument consists of reasons adduced to support a conclusion. It wears its justification on its sleeve. If the reasons are good enough, the conclusion is credible. Argument, moreover, is agent-neutral. It makes no difference who produced an argument or why. Even if its author is typically dishonest or intellectually slipshod, so long as the argument in question is cogent, the conclusion it supports is credible. The character and competence of the arguer are irrelevant, for the argument stands (or falls) on its own. Testimony rests on authority. The testifier provides no reasons to back his claim. Instead, he says in effect, 'Take it from me. I am in a position to know.' That being so, it matters crucially who is testifying and why. Testimony is credible only if the testifier is sincere in his assertion and competent with respect to it. Obviously, a lot more needs to be said about these

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<sup>3</sup>The characterization of speech acts as felicitous or infelicitous comes from Austin. See J. L. Austin, 'Performative Utterances,' *Philosophical Papers*, Oxford: Oxford University Press, 1961, pp.220-240.

requirements. But one point is worth noting at the outset. My own argument can justify my accepting a conclusion I was initially inclined to doubt. But my own testimony can do no such thing. It is pointless for me to stand before the mirror, look myself straight in the eye, and utter sincerely, 'Take it from me. Gold dissolves in aqua regia.' Either I already had sufficient reason to believe it, or I lack the competence to speak with authority. Arguments can generate warrant. Testimony is just a conduit. There are mixed cases as well -- discussions that supply some reasons but rely in part on epistemic authority. Let us say then that an assertion is testimony to the extent that, were it felicitous, it would impart information and transmit warrant.

Even if we acquire warranted beliefs on the basis of someone's utterance, it need not be the case that the speaker transmits warrant. If we know that Pinocchio's nose grows when and only when he utters a falsehood, we are warranted in believing that the negation of his utterance whenever we observe his nose grow. The warrant thus obtained is not testimonial warrant, since the information the utterance purports to convey is not in fact warranted. Moreover, even if a statement is warranted, its utterance need not qualify as testimony. If I announce my hunch that stock prices are falling and unbeknownst to me my hunch is warranted, I do not testify, for I have and purport to have no warrant to transfer. In my mind, it is just a hunch. Indeed, not all warranted utterances convey warrant. When Mark Anthony says, 'Brutus is an honorable man,' he does not so testify, even though his claim is warranted and he is warranted in making it. For he speaks ironically and his irony undercuts the transmission of warrant. It should be evident that the foregoing discussion is not an argument. It is simply an attempt to demarcate the class of utterances and inscriptions under investigation. Further refinements can no doubt be made, but this rough characterization suffices to mark out the territory I want to explore.

To say that testimony has the capacity to transmit warrant (or justification or epistemic entitlement) may seem unduly rash. It is one thing to

contend that testimony is a source of beliefs or opinions. That can be empirically demonstrated. It is quite another thing to say that beliefs or opinions thus conveyed retain warrant. Neither the ubiquity nor the utility of the practice of accepting testimony provides any obvious evidence of that. Why should we believe someone who baldly asserts something, but gives no reason for it? 'You can take it from me,' the testifier maintains. 'Why should I?' his auditor wonders.

One answer -- some think it is Hume's<sup>4</sup>-- is inductive. If the speaker has proven reliable about such matters in the past, we have reason to trust him now. This gives us grounds for accepting the testimony of speakers whom we know from previous experience to be honest and competent about the matter under discussion. But most testimony comes to us from informants we are in no position to judge. An obliging passerby tells me the time or provides directions to the zoo. Since he is a stranger, I have no information about his reliability. Nor would it help to query his companions, for I don't know them either. Their responses would be just more testimony whose reliability would have to be assessed in turn. The difficulty generalizes. That a physicist or historian or journalist is respected by her peers gives us no reason to trust her testimony unless we have independently established the trustworthiness of those peers. Typically we lack the resources to do that. Having no non-testimonial access to information about electron spin, I have no way to tell whether the physicist has proven generally reliable when she has spoken about it in the past. If the so-called 'Humean' solution is right, I have no reason to believe her now. The prospects of a piecemeal solution to the problem then are bleak. If each person must separately establish the trustworthiness of each informant, and must do so without relying on testimony from informants whose trustworthiness has not itself been established, most testimony will fail to transmit warrant.

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<sup>4</sup>See Coady, p.79 ff.. I believe Hume's position is more nuanced than Coady's discussion suggests. See David Hume, 'Of Miracles,' *An Enquiry Concerning Human Understanding*, (Indianapolis: Hackett, 1993), p. 78-82.

This objection might seem to rely on too narrow a conception of the evidential base.<sup>5</sup> Rather than restricting the evidence to my experience of the individual speaker's trustworthiness, I might appeal to a larger data base. If I have inductive evidence that people are generally trustworthy about such matters as reporting the time or giving directions to local attractions, I have good inductive reason to trust a randomly chosen informant. The difficulty lies with the assumption that I have good inductive evidence of general trustworthiness about such (or, indeed, any) matters. My evidence about what people in general say or do is both sparse and unevenly distributed. It hardly constitutes a representative sample. Nor can I appeal to the experience of others. For until I can vindicate testimony, I have no grounds for trusting their claims. I am then in no position to validly induce that people in general are trustworthy in their testimony, even about the most pedestrian matters. Still, I think that something in this neighborhood is correct. It requires more than inductions about individual or general trustworthiness, though. Toward the end of the paper I shall return to this point.

Recognizing the dismal prospects for inductive vindication, some philosophers have opted for a wholesale solution. Coady argues on Davidsonian grounds that testimony is in general trustworthy, hence that testimony typically yields knowledge.<sup>6</sup> Davidson's position is familiar. Although he frames his discussion in terms of radical interpretation, he contends that "[A]ll understanding of the speech of another involves radical interpretation."<sup>7</sup> A correct interpretation of our own language or of an alien tongue, Davidson maintains, is one that assigns to a speaker's sentences the truth conditions that

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<sup>5</sup>I am grateful to an anonymous referee for this point.

<sup>6</sup>Coady, *ibid.*, pp. 152-176.

<sup>7</sup>Donald Davidson, 'Radical Interpretation,' *Inquiries into Truth and Interpretation*, Oxford, 1984, p. 125.

they actually have. Thus a correct interpretation yields T-sentences -- instances of the schema:

$$S \text{ is true in } L \equiv p$$

where  $S$  is a sentence in the speaker's language and  $p$  is a sentence with the same truth conditions that the interpreter understands. A Tarski-style truth theory shows that the capacity to interpret infinitely many sentences is finitely realizable, and supplies consistency constraints on interpretation. Assuming, as Davidson does, that such a definition can be given for natural languages (or for idiolects), there is no formal impediment to this approach. Still, the question of correlation remains: How do we determine which sentences of our language have the same truth conditions as those of the speaker? Here Davidson invokes the principle of charity. [Choose truth conditions that do as well as possible in making speakers hold sentences true when (according to the theory and the theory builder's view of the facts) those sentences are true.<sup>18</sup> He allows for some measure of explicable error or difference of opinion. But on the whole, interpretation involves correlating sentences the speaker holds true with sentences the interpreter holds true, and sentences the speaker holds false with sentences the interpreter holds false.

Charity, Davidson insists, is mandatory if we are to understand others as persons -- that is, as language users who base their utterances and other actions on beliefs, desires, preferences and the like. [Global confusion, like universal mistake, is unthinkable, not because the imagination boggles, but because too much confusion leaves us nothing to be confused about and massive error erodes the background of true beliefs against which alone failure can be construed.<sup>19</sup> If we did not count others largely consistent and largely correct about most matters, Davidson contends, we could not make sense of them at all.

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<sup>18</sup>Donald Davidson, 'Belief and the Basis of Meaning', *ibid.*, p. 152.

<sup>19</sup>Donald Davidson, 'Mental Events', *Essays on Actions and Events*, Oxford, 1980, p. 221.

We could neither interpret their words, construe their behavior as action, nor ascribe beliefs, desires, and other attitudes to them.

If we think of the principle of charity as working on isolated sentences, it seems woefully inadequate. The requirement that I correlate a sentence I hold true with Jeanne's 'La niege est blanche' does not circumscribe my options nearly enough. I hold an enormous number of sentences true. How am I supposed to choose among them? But Davidson's position is holistic. Each sentence means what it does, has the truth conditions it has, because of its place in an extended array of interrelated sentences -- some permanently accepted, some permanently rejected, some whose acceptance varies with circumstance. The principle of charity applies across the board. The truth conditions I assign to Jeanne's sentence should be such that her pattern of acceptances and rejections largely parallels mine. In effect, Davidson believes that we cannot interpret a sentence without (implicitly) interpreting the language (or idiolect) it belongs to. This holistic deployment considerably enhances the plausibility of the principle of charity. Although a unique correlation is unlikely to emerge, the correlations that satisfy the Davidsonian constraints yield intuitively plausible interpretations.

Coady's elaboration of Davidson's argument is simple. He takes it that Davidson has demonstrated (1) that most of a speaker's beliefs are true; that is, (2) that most of the sentences she holds true are true; hence (3) that most of the sentences she utters are true. Since her testimony consists of sentences she utters, it follows, Coady believes, that most of her testimony is true. Since we know (via this Davidsonian argument) that most testimony is true, we are epistemically entitled to accept most testimony. Most testimony then confers warrant. Those who believe testimony that is in fact true know.

I have serious reservations about Davidson's solution to the problem of radical interpretation. But even if we accept it, Coady's use of it to vindicate testimony fails. Even if Davidson's argument establishes that most of the sentences a speaker holds true are true, it does not follow that most of the

sentences a speaker *utters* are true. Nor does it follow that most of the sentences that comprise her testimony are true. For a speaker utters only a small subset of the sentences she holds true, and only a subset of these qualify as testimony. If the speaker's testimony constituted a representative sample of the sentences she holds true, Coady could still make his case. But Gricean considerations indicate that they do not.

According to Grice, verbal communication takes place against a background of mutual expectations. These are spelled out with the help of the cooperative principle and its associated maxims.<sup>10</sup> The principle and maxims are not supposed to apply in every case. They function as defaults. Other things being equal, all parties to an exchange take it that the exchange is being conducted in accordance with the maxims. The defaults can be and often are overridden. So endorsing the maxims does not require believing that every speaker in every context complies with them. But, Grice contends, speakers assume compliance unless they have reason to suspect non-compliance.

A critical feature of the maxims is that they govern not only what we are to say but also what we are *not* to say. Although Grice contends that they apply to all verbal communication whose goal is information transfer, I am not convinced that their scope is that broad. I doubt, for example, that arguments and explanations are always bound by them. But I do not want to argue that point here, for I think the Gricean maxims or variants of them do apply to testimony. And, I suggest, they tell against Coady's position.

Testimony occurs where opinion is not -- or at least purports not to be -- shared. The speaker takes herself to be, or presents herself as, privy to information that her audience lacks. In such circumstances, the Davidsonian principle of charity cannot be used to generate an interpretation. My sincere, competent, bald assertion that gold is a metal does not qualify as testimony in a

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<sup>10</sup>Paul Grice, 'Logic and Conversation,' *Studies in the Way of Words*, Harvard, 1989, pp. 26-29.

context where everyone knows, and everyone knows that everyone knows it. For no information is, or purports to be transferred. Moreover, to assert in such circumstances that gold is a metal is generally inappropriate. Such an assertion violates the maxims of quantity:

(1) Make your contribution as informative as required (for the current purposes of the exchange).

(2) Do not make your contribution more informative than required.<sup>11</sup>

If relevant assumptions are shared by all parties to a discussion, it is not just pointless, but also misleading to articulate them. For to state the obvious is to implicate that it is not obvious. A trivial truth, by being stated, acquires an undue salience, and doubts may be raised about it. The difference between two captions in an art museum makes this clear. The first says, '[*Madonna and Child*, Giotto]'. The second says, '[*Madonna and Child*, attributed to Giotto]'. Plainly, these are not two ways of saying the same thing. The first simply attributes the work to the artist. The second suggests that there is something suspect about the attribution. It intimates that the experts are not universally or wholeheartedly behind it. That paintings are attributed to artists typically goes without saying. It is worth mentioning when the public needs a reminder that attribution is far from an exact science. What goes without saying, Grice believes, is not and ought not be said.

Interpreting testimony then cannot be a matter of mapping a speaker's sincere, sentential utterances onto sentences the auditor already holds true. For to construe her utterance as testimony is to assume that it purports to satisfy the maxims of quantity, that it purports to convey information that the auditor does not (yet) hold true. To be sure, speakers are sometimes mistaken about what information their auditors possess. But such mistakes cannot be the norm, else testimony would not be primarily a vehicle for information transfer. Davidson tends to equate what we agree about with what is true. Although he

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<sup>11</sup>Grice, *ibid.*, p. 26.

recognizes that the equation does not hold for every sentence, he contends that it does hold for the most part. Whether or not he is right, it does not hold for testimony. Being a matter of information transfer, testimony consists largely of sentences on which interlocutors do not yet agree. I cannot transfer to you the information that gold dissolves in aqua regia if you already know it. My testimony may be true, but the measure of its truth cannot be your already agreeing with it.

Widespread agreement may be a necessary condition for the possibility of communication. But what is mutually agreed upon goes without saying. The bedrock of platitudes that must be shared if communication is to be possible is not articulated. Davidson is under no illusions about this. [What is shared does not in general call for comment; it is too dull, trite, or familiar to stand notice.]<sup>12</sup> This does not jeopardize Davidson's use of the principle of charity. He does not insist that we interpret each particular utterance as something we hold true. Rather, he maintains, the interpretation of each utterance must be consonant with a global interpretation that makes the dull, trite, and familiar platitudes (which constitute the vast, unarticulated majority of our beliefs) come out true. Davidson's principle of charity, as I construe it, is not a device for generating interpretations of individual utterances and inscriptions. It is a criterion of adequacy for the interpretation of languages (or idiolects) as wholes.

So far my argument shows that Grice's maxims of quantity discredit the claim that most testimony consists of sentences its audience already holds true. This claim, one might think, is already so implausible that it doesn't need to be discredited. I concur. But if, as Davidson believes, agreement is the mark of truth, it is hard to see how to mount a Davidsonian defense of the veracity of testimony without endorsing this implausible claim.

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<sup>12</sup>Davidson, [The Method of Truth in Metaphysics', *Inquiries into Truth and Interpretation*, p.199.

Evidently, in the realm of testimony, questions of truth and questions of agreement diverge. The issue that concerns us is whether testimony is generally true. For that, according to Coady, is the way to tell whether it is generally warranted. Grice's maxims of quality seem to bear directly on this point. The overarching maxim of quality is:

Try to make your contribution one that is true.

This subsumes two submaxims:

(1) Do not say what you believe to be false.

and

(2) Do not say that for which you lack adequate evidence.<sup>13</sup>

The first is a requirement of sincerity;<sup>14</sup> the second, a requirement of competence. Any testifier who satisfies both testifies responsibly. Coady could almost rest his case on the submaxims of quality alone. The only remaining role for Davidson's principle of charity would be to insure that speakers who try to make their contributions true normally succeed.

Still, a careful look at the main maxim suggests that we can't be quite so cavalier. It is noteworthy that all the other maxims are explicit directives: do this; don't do that. Grice takes it that speakers can and typically do comply with them in their communicative exchanges. In the main maxim of quality, however, the operative word is 'try'. Grice recognizes that compliance with the submaxims does not insure that a contribution will be true. The first submaxim seems relatively unproblematic in that (a) what it requires is reasonably clear; (b) the requirement is one that most speakers can readily satisfy; and (c) its

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<sup>13</sup>Grice, *op. cit.*, p. 27.

<sup>14</sup>Endorsing this requirement does not entail maintaining that there is no way to obtain true beliefs from insincere utterances. It requires recognizing that the interpretive route that leads to the belief is different from the one that takes us from a sincere utterance to a true belief. Indeed, there is more than one such route. Which one to take depends on whether the speaker is patently insincere, or is feigning sincerity, or is speaking sarcastically, or tongue in cheek, etc..

satisfaction does not appear to undermine our epistemic objectives. In fact, it is not so innocuous as it looks. I will suggest below that it needs reformulation.<sup>15</sup> But for now, we can let it stand. If we set the standard of adequate evidence high enough to insure truth, speakers will rarely be in a position to satisfy it, and speakers seeking to impart information almost never will. In that case, the maxim recommends that we all shut up. This is not likely to happen. Nor, I think, would it be advisable. Testimony that lacks the highest epistemic credentials is often well worth having. To satisfy both submaxims is to satisfy the main maxim. To refrain from making statements you believe to be false and refrain from making statements you lack adequate evidence for is to try to make your testimony true. But such restraint does not guarantee success. For realizable standards that reflect our communicative practices leave a gulf between adequacy of evidence and truth.

Among philosophers, the words 'adequate evidence' are apt to activate skeptical concerns. How can you claim that your evidence is adequate when it doesn't rule out malevolent demons, mass hallucinations, undetectable errors, even fake barns? Pretty clearly, however good your evidence, it isn't good enough to insure truth. Are you *quite* sure you are competent to speak with authority? It might seem that Grice gives the responsible speaker a way to evade the skeptical challenge. She can satisfy the maxim by watering down her claims. Granted, she ought not baldly assert, 'Gold dissolves in aqua regia', if she wants to say only what she has adequate evidence for, but she can say something weaker: 'Unless I am being deceived by a malevolent demon, or chemists suffer from mass hallucination, or chemistry is corrupted by currently undetectable errors, or . . ., gold dissolves in aqua regia.' She can, that is, list all the undefeated defeaters, acknowledge that they remain undefeated, and assert that unless one of them obtains her conclusion holds. Unfortunately, listing *all*

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<sup>15</sup>I am grateful to Jerrold Katz for convincing me that a reformulation is needed.

the undefeated defeaters to any substantive claim is probably impossible. Not only would the list be unmanageably long, it would likely contain possibilities no one has ever entertained. In any case, it is something we do not even attempt. To be sure, testimony consists of claims of different strengths. Some testimony contains approximations, vague terminology, conditionals, or disjunctions that mitigate its strength. Some testimony is justifiably weak. But we do not ordinarily assume that we must rule out the remotest possibility of error or enumerate every one that remains before we are entitled to speak.

Nor do we assume our informants have done so. When a chemist testifies that gold dissolves in aqua regia, we take it that she is complying with the maxims, hence that she has what she takes to be adequate evidence for her claim. But we do not take her to have, or to implicate that she has, evidence that defeats Descartes' demon. Nor do we consider her testimony to be epistemically irresponsible on that account. Why not? I suggest that the maxims of quantity provide the answer. What goes without saying does not get said. All parties tacitly recognize that even the best scientific evidence does not defeat skeptical hypotheses. It is unnecessary to mention that one has failed to defeat them then, for no one would think otherwise. To testify that  $p$  then is to implicate that  $p$  is backed by all the evidence it needs-- except, of course, for the evidence that it goes without saying that  $\neg p$  does not have.<sup>16</sup>

Nor is it only skeptical possibilities that get ignored. Empirically possible but remote -- and sometimes not so remote -- possibilities are sometimes bracketed as well. Physicians arrive at some diagnoses -- for example, multiple

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<sup>16</sup>Robert Fogelin and David Lewis contend that there is a sliding scale for the level of justification required for knowledge. My claim is more modest. I am concerned only with the requirements for epistemically responsible testimony. I believe that these are weaker and perhaps more flexible than the requirements for knowledge. So I do not contend that true, epistemically responsible testimony always conveys sufficient justification to yield knowledge. See Robert Fogelin, *Pyrrhonian Skepticism*, Oxford: 1994; and David Lewis, 'Elusive Knowledge,' *Australasian Journal of Philosophy*, 74 (1996), 549-567.

sclerosis and Alzheimer's disease -- by a process of elimination. Having ruled out all competing explanations of the patient's symptoms, the physician concludes that she has multiple sclerosis, it being the only one left. The test results that show that the patient doesn't have any of the other diseases known to give rise to her symptoms constitute adequate evidence that she has multiple sclerosis, provided of course that the list of alternatives is complete. But no one knows that. Still, the physician testifies that she has multiple sclerosis, not that she has multiple sclerosis unless . . . . Since the possibility that some as yet unrecognized disease presents the same profile as multiple sclerosis goes without saying, if he were to mention it, he would give it undue salience and hold out false hopes.

Standards of assertibility are remarkably elastic. They vary with the availability of evidence, the importance of the issue under discussion, our goals in communicating, and background assumptions about the subject matter and institutional framework of the discussion. Where evidence is readily available, we expect those who assert without qualification to possess, or to be epistemically connected to those who possess, plenty of evidence. Where evidence is inevitably sparse or exceedingly difficult to come by, we are apt to let a little evidence carry a lot of weight. Scientists recently concluded that humans and Neanderthals did not interbreed. Their evidence was the comparison of human DNA with a sample of one Neanderthal's mitochondrial DNA. No one would or should conclude that, say, Canadians and Bolivians did not interbreed on the basis of such sparse evidence. The difference is plain. We do not have access to much Neanderthal DNA, and we are unlikely to get a lot more. If any conclusions are to be drawn, the standard of adequate evidence must be narrowed considerably. Since paleontologists all know that the sample size is exceedingly small, and know the dangers of making claims about a species on the basis of such a sample, in a professional setting the caveats about sample size go without saying. In a context where the caveats are taken for granted, there is nothing misleading or irresponsible about stating without

qualification that the conclusion holds. In a context where the caveats cannot be taken for granted -- a newspaper report, for example -- the qualifications would have to be mentioned. To assert without qualification is not to assert or to implicate that there are no qualifications. The tacit assumptions that govern the exchange may be riddled with provisos, exceptions, mitigating factors, and other restrictions on the scope or strength of the claim. Rather, to assert without qualification is to implicate that there are no qualifications beyond those that everyone privy to the exchange takes for granted anyway. But it may be that a lot of quite strong qualifications go without saying.

Where a statement is relatively insignificant, plausible, and likely to be common currency, we are often willing to take pretty much anyone's word. We trust that our informant, whoever she may be, is complying with the maxims, hence that she will admit her ignorance if she doesn't know. So we believe her when she baldly asserts that the Celtics lost yesterday's game. The mutual expectations that frame our exchange are such that she doesn't need to establish her expertise. Where, however, the matter is more arcane, we might harbor doubts. It is not clear, for example, that we would believe a passerby who asserted that the Persians won the battle of Thermopylae. If our informant does not strike us as someone well schooled in the classics, we might wonder whether he knows what he is talking about. In a context where expertise is expected, and it is not obvious that the speaker possesses the requisite expertise, complying with the cooperative principle requires more than a bald statement of fact. The cooperative speaker must either provide evidence of the truth of his claim, or evidence of his competence with respect to it.

Where the stakes are sufficiently high, standards rise as well. Even when my physician is acknowledged to be the top specialist in his field, if he announces that I need life threatening surgery, it behooves me to get a second opinion. It is not that I doubt his clinical competence or his standards of evidence. But since empirical evidence is always less than conclusive, in cases

like this, it is worth finding out whether expert opinions diverge. Regardless of his expertise, it is not unreasonable to think that my physician's word is not good enough.

Context circumscribes content. We compartmentalize as a matter of course. Elementary logic teaches that the quantifiers are unlimited in scope. But we regularly, tacitly restrict their range. The regretful host who announces, 'There's no more beer' does not mean and is not taken to mean that the world is bereft of beer. The musician who proclaims, 'The piano needs tuning,' is not refuted by the news that the world contains more than one piano. Even though the utterances contain no explicit scope restrictions, all parties to the exchanges assume that contextually appropriate restrictions are in force. Nor is it only the scope of our quantifiers that is subject to such restrictions. Criteria of assertibility are circumscribed as well. No single criterion suits every context, for the considerations that are adequate to underwrite assertions in one context are often inadequate to underwrite assertions in another. In saying this, I am concerned only with the standards required to underwrite *assertion*, not with the standard required to underwrite *knowledge*. A scientist who, in a professional context, is in a position to responsibly assert that Neanderthals and humans did not interbreed, may (and, I take it, probably does) fall far short of having enough evidence to claim to know such a thing. Standards of responsible assertion are, I suggest, often weaker than standards of knowledge.

This brings us back to the submaxims of quality:

(1) Do not say what you believe to be false.

(2) Do not say that for which you lack adequate evidence.

Earlier I waived objections, by construing them as requirements of sincerity and competence. I want to stand by those construals. Still, the first maxim needs to be revised. To see why, consider the following case: Suppose we are in Amherst, discussing the feasibility of attending a concert in Boston. I say, 'Amherst is 90 miles from Boston'. My remark seems to comply with the

cooperative principle, being relevant and informative. But, although I'm confident it's in the right neighborhood, I would be stunned if my claim were strictly true. So, it seems, I said something I believe to be false. Moreover, I am well aware I do not have adequate evidence for my claim. I have no reason to think that Amherst is 90 miles from Boston as opposed to 91 or 89, or even 95 or 85. So, it seems, I have violated the second submaxim as well. Indeed, taken strictly, my claim also violates the second submaxim of quantity. The exact distance between the two cities is surely more information than our conversation requires. All we need is a ballpark figure. This is clear to everyone in the discussion. But, I suggest, I have not spoken irresponsibly. For we do not construe my remark strictly. Rather, we take it to have a tacit, but rather generous margin of error. Under that interpretation, it does not violate the maxim of quantity. For no one in the conversation would consider my remark uncooperative if the distance turns out to be 95 miles.

This suggests that the first submaxim of quality should be revised to read:

(1\*) Do not say what you believe to be misleading, where contextual factors and tacit assumptions come into play in deciding what is and what is not misleading. The second submaxim of quality can stand, so long as we recognize that what is required is that it is not adequate evidence for the truth of the claim, but adequate evidence for the nonmisleadingness of it. I satisfy the maxims in saying, 'Amherst is 90 miles from Boston,' and the scientist satisfies them in saying, 'Humans and Neanderthals did not interbreed,' because mutually recognized tacit assumptions so circumscribe the scope and the strength of the claims that none of the parties to the discussion is misled.

Many of the mutual expectations that govern communication are institutionalized. When a chemist or a dentist or an auto mechanic testifies about something in her area of expertise, she is expected to have not just evidence that she deems adequate, but evidence that the relevant community deems adequate. Then, if her audience consists of members of the same

community or of individuals attuned to that community's standards, they know what level of credence to attach to her claim. The same holds for more casual conversations. Even if Paul is thoroughly convinced that there is a curse on the Celtics that causes them to lose every seventeenth game, he ought not testify on the basis of that conviction alone that the Celtics lost last night. For the adequacy of *his* reason does not go without saying. His audience, quite reasonably, expects him to be able to back his claim by conventionally accepted grounds.

Institutionalized standards can be remarkably elastic. A scientist can responsibly communicate a finding to a collaborator on the basis of much weaker evidence than is required to publish that finding in a reputable journal. For collaborative inquires to advance understanding, we need to be able to convey epistemically tenuous information. We can do so by temporarily consigning to the realm of what goes without saying a host of currently irrelevant caveats. You know and I know and you know that I know that your initial experiment did not control for outgassing or magnetic interference, and that there are a variety of competing hypotheses that could, no doubt, accommodate the data. There's no point in reminding me of all this. So you just tell me your result. Downstream, of course, we will have to control for outgassing and magnetic interference, and ask whether the competing hypotheses give a better account. So the criteria of relevance and evidential adequacy become more stringent as investigation proceeds, and as the audience widens. But, between you and me, in the privacy of our lab, you can safely and responsibly testify that the initial experiment confirms our working hypothesis.

Because they are institutionalized, the criteria for the satisfaction of the maxims need not be separately negotiated at the start of every exchange. Interlocutors typically know what standards are contextually appropriate, hence what level of credence assertions in a given context carry. Of course, we do not have to be bound by prevailing community standards. We are at liberty to adjust

them to suit our current interests. Still, ignoring community standards often impedes communication. If we deviate without warning from accepted standards of evidence or relevance, our audience is apt to be bewildered or misled. If they do not know what tacit assumptions circumscribe an assertion, they do not know what to make of it, or what level of credence accepting it would commit them to. When deviating from the norm, then, it pays to advertise. To understand an assertion, auditors need to know what background assumptions (factual and normative) to assess it against.

In different contexts different standards are appropriate. We violate them at our peril. A chemist given to testifying about her evidence's incapacity to defeat skeptical hypotheses would not thereby advance the course of chemistry. If she interspersed such testimony with accounts of her experimental findings, the significance of those findings would likely be obscured. For the scientifically irrelevant skeptical doubts, by being articulated, would acquire an undue salience, and might mislead the audience about the strength of her purely scientific claims. The curator who insisted on putting 'attributed to' on all the captions would lead museum goers wrongly to infer that the authorship of the entire collection was in doubt.

If everyone involved in a given exchange knows what standards of epistemic appraisal are in effect, what they deliver, and what caveats go without saying, communication proceeds fairly smoothly. This does not always happen. Sometimes testimony produced in accordance with the standards of one community is taken up by another. If the adoptive community has different standards and expectations, the caveats, scope restrictions and the like that go without saying in the original community may fail to be given their due.

Perhaps the most familiar case of this kind is the use of expert scientific testimony in courts of law. When a scientist testifies as an expert witness, he swears that the statements that comprise his testimony are supported by scientifically acceptable evidence. For example, when a geneticist testifies that

the probability of a chance match between the defendant's DNA and the DNA profile of the blood found at the scene of the crime is one in ten million, he is under oath that the findings of genetics support his claim. It might seem that the jury should just accept his assessment and conclude that it is overwhelmingly likely that the blood found at the crime scene was the defendant's. But, as is well known, expert witnesses disagree. The expert for the defense, a presumptively equally qualified scientist, may testify that the odds of a chance match are only one in ten thousand.<sup>17</sup> What is the jury to do?

The cynical among us might conclude that at least one of the experts is either lying or incompetent. But this need not be so. Because the witnesses are under oath, we ought not be too quick to assume that one of them is lying. Because the judge has to rule on the admissibility of evidence, and is debarred by law from allowing incompetents to testify as experts, we ought not be too quick to assume that an expert witness is incompetent.<sup>18</sup> It is entirely possible that both are complying with the maxims of quality. Neither is saying what he believes to be misleading. Each is saying what he has scientifically adequate evidence for. But scientific standards of adequacy are lower than legal standards. Evidence does not have to place a conclusion beyond a reasonable doubt to be scientifically assertible.

Because theory is underdetermined by evidence, multiple theories, yielding divergent interpretations, explanations, and probabilities answer to the same evidence. Several of these may be equally attractive on theoretical grounds, displaying an equal balance of simplicity, scope, fruitfulness, and the like. If so, competent scientists may reasonably and responsibly disagree about how best to account for the evidence. Moreover, small differences in boundary

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<sup>17</sup>Philip Kitcher, *The Lives to Come*, Simon and Schuster, 1996, pp. 157-179.

<sup>18</sup>Even if most disagreements among expert witnesses are due to lying or incompetence, the epistemologically interesting point is that not all are. See Scott Brewer, 'Scientific Expert Testimony and Intellectual Due Process,' *Yale Law Journal*, 107 (1998), 1535-1681.

conditions or background assumptions can have large effects. So slight disagreements about the boundary conditions or background assumptions can lead to quite disparate conclusions among scientists working within the same theoretical framework. This explains why expert scientific witnesses can without perjuring themselves give such widely disparate testimony and why juries are often at a loss to know how to deal with such testimony. In a scientific context, a scientist is permitted to speak with authority when he has scientifically adequate evidence. The evidence he has need not be, and typically is not sufficient to silence all detractors. To be sure, the attorneys take pains to bring out the epistemic character of expert testimony. It's an uphill battle, though. Testimony that prides itself on being tentative, fallible, and subject to revision is hard to square not just with the stereotype of science as the bastion of firmly established facts, but also with the need for closure of the criminal courts. It is not surprising that juries often do not know what to make of it.

I seem to have backed myself into a corner. I contended that (1) piecemeal vindication of testimony along so-called Humean' lines is inadequate, for it leaves most testimony -- and most seemingly creditable testimony -- devoid of warrant. (2) The wholesale contention that testimony in general yields fully warranted beliefs fails because it runs afoul of the Gricean maxims. (Although I only discussed Coady's position, other wholesalers, such as Burge, are vulnerable to the same criticism.<sup>19</sup>) (3) Nevertheless, testimony is an epistemically valuable and fecund source of information. This is not an altogether comfortable cluster of claims.

The way to relieve the tension among them is to reject an assumption implicit in both the wholesale and the piecemeal approaches -- the assumption that the warrant for a deliverance derives mainly from its source. This assumes that testimony takes place in an epistemological vacuum. If it did, then just

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<sup>19</sup>See Tyler Burge, 'Content Preservation,' *Philosophical Review*, 102, (1993), pp. 457-488.

about the only reason we would have to believe a claim would be that an informant asserted it. Clearly this is not the case. We bring to our exchanges a constellation of cognitive commitments -- beliefs, standards, methods of assessment, and the like -- and evaluate information received in light of them.<sup>20</sup> Taken alone, a known hypochondriac's testimony that she has difficulty breathing carries littleweight. She's probably imagining it, we're apt to think. Backed by an ominous x-ray, though, the tenability of her claim increases dramatically. Testimony takes place within a context framed by a variety of practices and institutions that affect both its content and the level of warrant it purports to deliver. To interpret and assess it requires sensitivity to such contextual factors. Rather than concluding that testimony is in general warranted or that only the testimony of informants who are known to be reliable is warranted, we assess testimony in light of a variety of factors that bear on its warrant. We consider not just who is talking and what she is saying, but also what is at issue, what is being assumed -- about the facts, the circumstances, the testifier, the audience, and the cognitive context. We also consider whether the shared assumptions are themselves justified. A testifier can transmit no more warrant than she has. But her audience may have epistemic resources that she lacks. If, for example, they have additional relevant information or better methods of assessment, they, as it were, filter her testimony through a finer mesh. They may have more warrant for her claim than she does. This is why the physician can put more credence in a patient's complaint than the patient does, and why expert testimony that is not beyond reasonable doubt can contribute to a verdict that is. And it is why testimony can be a vehicle for the advancement, not just the dissemination of understanding.

Our epistemic goal, I have argued elsewhere, is a system of thought in wide reflective equilibrium.<sup>21</sup> Information received through testimony

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<sup>20</sup>As I read Hume, he recognized this. See Hume, *op. cit.* p. 78.

<sup>21</sup>Catherine Z. Elgin, *Considered Judgment*, *op. cit.*.

contributes significantly to its realization. To make effective use of testimony requires that we be neither too gullible nor too skeptical. We should neither accept nor reject every offering. Rather, we need to consider whether the information attested to meshes with our other cognitive commitments to yield a system that, as a whole, is reasonable in light of what we already had reason to believe. This requires that we attune ourselves not just to the bald statement of fact, but also to the speaker, the context, and the institutions that underwrite it.

Understanding admits of degrees. So our response to testimony need not and often should not be either unqualified acceptance or unqualified rejection. Testimony is typically accompanied by tacit riders, caveats that as everyone in the relevant community knows restrict the scope or strength of the claims. We cannot understand testimony or incorporate its deliverances into our developing systems of thought unless we are sensitive to its tacit riders. We need not, of course, accept them, any more than we need accept the proffered statement of fact. Our community may add or delete riders of its own. But to give testimony its epistemic due, we must recognize how the considerations that go without saying circumscribe and inform the message that testimony transmits.<sup>22</sup>

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