

# The inference making machine meets the epistemic engine

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## *Abstract*

This paper discusses a lecture by Harvey Sacks on ‘The Inference-Making Machine’, originally delivered in 1964 and included in the posthumously published collection of his transcribed lectures, and then critically juxtaposes Sacks’ analysis with recent work in sociology and linguistics on the topic of ‘epistemics’ in conversation. Sacks’ lecture discusses an extract from a phone call in which the caller relates a story about a domestic difficulty, and the recipient (an employee of a suicide prevention center, who was unacquainted with the caller) admonishes the caller for not telling the whole story and formulates the missing detail. Sacks makes a series of observations about the practical reasoning the social service agent uses to infer the missing detail. His analysis contrasts with that of some recent studies that assign higher ‘epistemic status’ to speakers who present first-hand as opposed to second-hand accounts of the events in assertions, assessments and stories. The present paper uses the comparison with Sacks’ analysis to extend a recent dispute about ‘epistemic’ analyses of conversation, and also examines an instance from a recent publication on police interrogations of suspects also to question the way professional sociolinguistic analysts attribute ‘epistemic status’ to participants in conversational exchanges.<sup>1</sup>

## INTRODUCTION

In a compilation of lectures, originally delivered in 1964–65 and later given the title ‘the inference-making machine’ in the posthumously published collection of his lectures, Harvey Sacks (1992: 113) begins by proposing an ‘esthetic for social life’ that would also provide insight into ‘what kind of business sociology is’. He then proposes a way of working that begins with transcripts of ‘actual actions’ in their ‘sequence’, and then finds and names some objects in order to set up an effort to ‘construct a machinery’ though which

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<sup>1</sup> An earlier version of this paper was presented at the 2017 meeting of the International Institute for Ethnomethodology and Conversation Analysis, Otterbein College, Westerville, Ohio, 10–13 July 2017. I’m grateful Dusan Bjelic, Jonas Ivarsson, Oskar Lindwall, Ken Liberman, Doug Macbeth, Wendy Sherman-Heckler, and Jean Wong for their comments on the presentation and paper, and to Alex Dennis and anonymous reviewers for *Ethnographic Studies*.

‘the rules for using those objects will produce those objects’ (ibid). In this essay, I would like to propose that now, more than a half-century later, Sacks’ way of working has been replaced by a *method* by some of his successors in the field he invented. It turns out that his critical revelation about the business of sociology aptly describes the business of some prominent analysts of language-use today, particularly those with affiliations to sociology, psychology, and linguistics who have written about ‘epistemics’ in conversation (Drew, 2018a,b; Heritage, 2012a,b; 2018; Raymond, 2018; Maynard and Clayman, 2018). After briefly reviewing how Sacks explicates what he calls ‘the inference-making machine’ exhibited in a transcribed phone call, I will juxtapose that ‘machine’ with another mechanical metaphor, the ‘epistemic engine’ (Heritage, 2012b). Sacks’ example, as well as examples from a recent study of police interrogations (David et al., 2017), will be used to elucidate ambiguities in the attribution of ‘epistemic status’, a concept that is central to the ‘epistemic engine’.

## THE INFERENCE-MAKING MACHINE

Sacks (1992: 113) presents an extract from a transcript of a phone call to a suicide prevention center. The call is received by A, who appears to be a social worker or counselor of some kind, and according to Sacks the caller (B) had previously identified himself as having marital problems. The extract begins shortly after the opening of the call, after the caller had begun to describe an incident that precipitated the call. The identities of caller and recipient and the placement of the fragment are evident from Sacks’ brief gloss on the situation and from a vernacular understanding of the prompt in line (1) to resume a story, and the caller’s prefatory marking of a resumption in line (2):

- 1 A: Yeah, then what happened?
- 2 B: Okay, in the meantime she [wife of B] says, ‘Don’t ask the child nothing’. Well, she stepped between me and the child, and I got up to walk out the door. When she stepped between me and the child, I went to move her out of the way. And then about that time her sister had called the police. I don’t know how she ... what she ...
- 3 A: Didn’t you smack her one?
- 4 B: No.
- 5 A: You’re not telling me the story, Mr. B.
- 6 B: Well, you see when you say smack you mean hit.
- 7 A: Yeah, you shoved her. Is that it?
- 8 B: Yeah, I shoved her.

Sacks does not provide a detailed analysis of this transcript, though he certainly could have done so. What fascinates him is the way the recipient of the call (A) is able to take a line from B’s developing story as a basis for inferring what happened, and A goes so

far as to admonish B for not telling the (whole) story, and himself formulates what is missing. Even though A has no prior acquaintance with B, and thus far has only received a bare identification from him as a husband with marital problems, A is able to present an ‘inference’ phrased in definite terms, and not formatted as a guess, because ‘he takes it that—perhaps without regard to what B tells him—his guess is correct’. Indeed, A not only asserts that B’s story is incomplete, he supplies an account of what is missing. Sacks observes that B does not object, “‘Look, I’m telling the story. How the hell would *you* know?’” (Sacks, 1992: 114), and that, far from making such an objection, he treats A’s guess as nothing extraordinary, and acknowledges that it is correct.

Sacks goes on to say that the recipient (A) draws an inference that is not a matter of seeing into the mind of the caller (B), or even of imagining what he might have had in mind. Instead, it is a matter of solving a more-or-less anonymous puzzle with an ‘inference-making machine’—what today might be described as an algorithm, though current uses of that term may hold implications that Sacks would want to avoid. This metaphoric machine ‘can deal with and categorize and make statements about an event it has not seen’ (Sacks, 1992: 115). He adds that the events the machine can handle are ‘sequential events’, and he gives a simple example of such a sequence, (a), (b) ... (d), where the ellipsis points to the missing element of the series, an element that can be supplied in a mechanical way (*ibid.*).

In his account of the case at hand, Sacks reconstructs what A knows of the series of events in B’s narrative: ‘(a) is the family quarrel, (b) is the guy moving to the door, ... (d) is the police coming. And (c) is the grounds for the police to have come’ (p. 116, ellipsis in original). We might say that this is a ‘narratological’ sequence: a story whose phases are presented in the order of a temporal succession of events; events that also follow one another *logically* for competent members of the society in which the narrative is told. That the police arrived implies that there were *reasonable grounds* for their coming on the scene. This members’ logic provides Sacks, and presumably the participants as well, with a resource for extrapolating possible scenes from the bare materials of a story made up of a few characters and actions. In a way, Sacks’ account of this story is similar to his explanation of the child’s story, ‘The baby cried, the mommy picked it up’, in that he explores what we (recipients or overhearers who are members—masters of the natural language in Garfinkel and Sacks’ [1970] terms) would make of the story if alternative membership categories were substituted in the place of those in the story (Sacks, 1972). In the present case, the story would differ considerably if ‘my sister’ or ‘a neighbor’ called the police, rather than ‘her sister’ in this case. More obviously than with a series of cardinal numbers or an alphabetical sequence, the logic here is a native logic, from the point of view of which identifiable characters and their typical actions come together to compose a recognizable circumstance: ‘[a] task of socialization is to produce somebody who so behaves that those categories are enough to know something about him’ (Sacks, 1992: 117). Although Sacks does not go into the matter in this particular lecture, this logic also involves elements of trust (Garfinkel, 1963). As Sacks was aware, the inference that there ‘must have been a good reason’ for the police to arrive at a domestic dispute is not universally

shared among members of the US population, and is especially subject to discrepancies along racial lines (see Sacks, 1984: 422). For ‘members’ (as masters of natural language) membership categories are flexibly used and understood, the boundaries of which are reciprocally tied to the local-sequential logic of the narrative.

The puzzle Sacks addresses is how A is able to tell the teller (B) that he isn’t telling the whole story, given that A lacks first-hand knowledge of the events in the story, and presumably also relies upon what B has told him for a partial, second-hand understanding of those events.

We can note as well that it's not simply the case that A and B don't know each other, but we have a set of other persons who are being talked about, and A is listening to this. Whatever A knows about B, he certainly knows less about these others. A knows essentially only the set of terms that B uses to name them; that is, that there is something called a sister, something called a wife, something called a child (p. 116).

The remarkable feat that A manages to achieve, then, is not simply to trump first-hand knowledge with second-hand knowledge. He does not contradict B’s first-hand account with an independent account he had heard from other witnesses, nor does he point out that the teller of the story contradicted an earlier version he had given of the same incident. Instead, A uses B’s first-hand account as his sole source of witnessed materials, and as a basis for his complaint is that B is not telling the whole story—that is, he is leaving something out.

In his discussion of this case, Sacks draws upon diverse sources, such as studies of how children become aware of when they can conceal their thoughts and actions from adults and when they cannot; psychoanalytic accounts of a schizophrenic’s delusion that a ‘machine’ is enabling others to know their private thoughts, and anthropological and legal accounts of the ‘reasonable man’. Typical of the wide-ranging style of his lectures, Sacks combines citations to social and psychological research with references to *The Bible*, Franz Kafka’s novels, and other literary sources. He pulls these sources together as bearing upon ‘the phenomenon of presumptively correct descriptions, and behavior produced to fit those descriptions ... by reference to illegitimate as well as legitimate activities’ (118–119). He mentions that parents routinely reject their children’s stories as implausible or incomplete, even though the parent did not witness the events and/or perform the actions in question. Judges and jurors also employ both formal and informal conceptions of *reasonable* actions and persons when assessing testimony.

Sacks borrows the titular theme of ‘the inference making machine’ from a psychoanalytic paper that he discusses in the lecture: ‘On the origin of the influencing machine in schizophrenia’, by Victor Tausk (originally written in 1919; published in English translation in 1933, and re-published as a ‘classic article’ in 1992). Sacks’ machine is quite different from Tausk’s, however. The ‘influencing machine’ is Tausk’s characterization of a type of schizophrenic delusion in which the patient complains that another person or

persons is using a machine to access and influence her inner thoughts.<sup>2</sup> Sacks' machine is a metaphor for the way a competent member is able to pronounce upon the correctness of another member's narrative, and to do so without hesitancy. He emphasizes the rapidity and the lack of deliberation or doubt with which such judgments are expressed, and adds that this does not mean that the inference is simple and obvious. To underline this point, he presents an analogy with the way molecules assemble themselves into intricate structures that challenge scientific analysis.<sup>3</sup> But, while the analysis of molecular structures requires extensive training, research experience, and specialized equipment, 'here we can use that information which we have as members of the same society that these two people are in' (p. 116). Later in the lecture, he elaborates further on the difference between the inference in this case and a commonplace formulation of the relationship between scientific facts and explanations.

The matter I'll be dealing with is one which you might not, given the way one goes about considering scientific materials, formulate in the way I'm going to. When we think about facts, in so far as we are thinking of scientific facts, we tend to pose problems in the following way: If it's the case that something has occurred, then our problem is to explain it. Now, with such things as lies, untruths, confabulations—the possibility of which persons are often attending to—we've got to notice that something like a reverse procedure is very much used. The reverse procedure consists of the following. In deciding among possible competing facts, one may decide that that fact occurred which has an explanation, and that fact that hasn't an explanation did not occur (p. 121).

One point Sacks repeatedly makes in the lecture is that members (of this society, and very likely of others) hold that 'those facts are possible for which there is an explanation. One can't merely say, "Well, I saw it. You explain it." Something proposed to have occurred can be treated as not so, by virtue of the fact that there's not an explanation for it' (p. 124). Sacks points out that this phenomenon has bearing on the use of the principle of 'reasonable doubt' and the figure of the 'reasonable man' in jurisprudence, and he could have added that it problematizes the legal strictures that exclude the testimony of ordinary witnesses who present inferences extrapolated from what they 'directly' witnessed.

This is a very interesting remark, but if we go back to the transcript, we can see that in line (2), Mr. B not only fails to give an explanation, he professes not to know what the

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<sup>2</sup> Tausk's article includes some interesting comments about single-case analysis in psychotherapy. The article focuses mainly on one case, and Tausk mentions that it is a very rare case, and yet he treats it as particularly revealing, not only about schizophrenic delusions, but also about 'normal' children's struggles to distinguish between which of their thoughts and actions are evident to adults, and which of them can be concealed from those adults. A child's discovery of the possibility of lying is described a pivotal moment in both Tausk's article and Sacks' lecture.

<sup>3</sup> I am reminded of an immortal line in a published letter by Gail Jefferson (1989:429), which should be understood as having been written in admiration rather than in criticism. At the close of the letter, Jefferson reminds her readers of "the alien character of conversation analysis. It is a field, after all, founded by a man who took the position that humans are no more anthropomorphizable than, say, algae."

explanation (i.e., the reason or motive) might have been for calling the police. The inference in this case is different from ‘if there is no explanation, then it didn’t happen’. Instead the inference discounts B’s claim that (to paraphrase) ‘it happened, but I have no idea of why it happened’. Sacks speaks of ‘possible competing facts’ (alternative facts?), but in this case, there is a pivotal fact in B’s story that A fixes upon: the sister called the police. The difference is not that there is an alleged fact for which there is no explanation, but that A offers a missing fact to complete B’s story; a fact that he presents as *the* fact that stands as a plausible explanation for why the sister called the police. If providing an explanation means the same as giving a reason, then the unstated link in the story is ‘the police do not arrive for no reason’. The recipient of the call (A) does not take the absence of an explanation as implying that police did not in fact arrive, but instead produces a candidate explanation (that B ‘smacked’ his wife) for the fact of their arrival, phrased in the format of a locally plausible (to members) phase of the narrative sequence.

## THE EPISTEMIC ENGINE

Sacks’ account interestingly relates to ‘a simple and invariant rule of discourse’, formulated by William Labov,<sup>4</sup> which ‘depends upon the concept of “shared knowledge”’ such that in ‘any two-party conversation, there exists an understanding that there are events that A knows about, but B does not, and events that B knows about but A does not; and AB-events that are known to both’ (to avoid confusion, keep in mind that Labov’s ‘A-event’ is presumably known to ‘B’ in the story told by ‘B’ in the story Sacks presents in the transcript). According to Labov’s rule, ‘[i]f A makes a statement about a B-event, it is heard as a request for confirmation’ and ‘[i]f B makes a statement about an A-event (“I’m sleepy”), it is not heard as such a request. But if he utters a statement about a B-event (“You were up late last night”) it is heard as requesting a confirmation, “Is it true that...”’ (Labov, 1972: 124).

Labov’s rule and related resources from socio- and psycho-linguistics (e.g. Bollinger, 1957) are among the key sources acknowledged in recent work on ‘epistemics’ in conversation, which has become established as an analytical framework developed by conversation analysts who draw eclectically from social psychology, linguistics and discourse analysis, with accents of cognitive science.<sup>5</sup> Epistemics focuses analytically on verbal conveyances and receipts of knowledge and information in conversation, and was formalized

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<sup>4</sup> Sacks does not cite Labov in the 1964 lecture, and I do not know if he knew Labov at the time (he certainly did know him some years later), but it is likely that he was apprised of sociolinguistic and psycholinguistic sources (such as Bollinger 1957) that presented roughly similar analyses.

<sup>5</sup> The present paper was written in the aftermath of two special issues of *Discourse Studies*. The first of the two included a guest-editors’ introduction (Lynch and Macbeth, 2016) and a series of critical articles on “the epistemics of Epistemics” by Lindwall et al. (2016); Lynch and Wong (2016); Macbeth and Wong (2016); and Macbeth, Wong and Lynch (2016). The issue also included critical commentaries by Button and Sharrock (2016) and Steensig and Heinemann (2016). A special “rebuttal issue” appeared in *Discourse Studies* (Vol. 20, No. 1, 2018). It included articles by Bolden (2018); Clift and Raymond (2018); Drew (2018a, b); Heritage (2018); and Raymond (2018).

by John Heritage and Geoffrey Raymond more than a decade ago (Heritage and Raymond, 2005; Raymond and Heritage, 2006).

Epistemics also was the subject of a special section of an issue of the journal *Research on Language and Social Interaction (ROLSI)* in 2012, which featured an article by Heritage (2012b) entitled ‘the epistemic engine’. Heritage (2012b: 32) summarizes his argument by saying that ‘... when a speaker indicates that there is an imbalance of information between speaker and hearer, this indication is sufficient to motivate and warrant a sequence of interaction that will be closed when the imbalance is acknowledged as equalized for all practical purposes’. He also introduces other mechanical metaphors to elaborate on this point: an ‘epistemic ticker’ through which parties incessantly monitor their interlocutors for indications of differential knowledge relevant to the immediate conversation; an ‘epistemic gradient’ that graphically represents the differential in presumptively relevant knowledge and information; and an ‘epistemic seesaw’ that describes a hydraulic flow of information back and forth between parties to a dyadic exchange until equilibrium is reached.

A central conceptual element in this analytical framework is a distinction between epistemic stance and epistemic status. Epistemic stance includes grammatical forms of interrogative and declarative utterances that, respectively, request information from or convey it to the recipient. These include syntactic formats such tag-questions and negative interrogatives, as well as terms and phrases that express degrees of certainty, mitigate assertiveness, and upgrade or downgrade assessments. These and other discursive and lexical forms are said to ‘index’ differential possession of knowledge and information.

Heritage and Raymond (2005; also see Heritage 2012a) appropriate and expand upon Labov's ‘simple and invariant rule of discourse’ when assigning epistemic status to participants in conversation: speakers who present accounts based on their own lives and experiences, or in reference to their family members, pets, and so forth, are attributed higher epistemic status by their interlocutors and, secondarily, by overhearing (or overreading) analysts deploying tapes, transcripts and collections of transcribed fragments.

Epistemic status is, in principle, independent of epistemic stance, since a party can deploy grammatical expressions in sequential positions that imply a degree of knowledge that differs from what their interlocutor (and also an overhearing analyst) credits them with knowing. Although it is said to have an immediate bearing on sequential organization in conversation, epistemic status includes ‘extra-conversational’ sources of authority over relevant topics and domains. Accordingly, ‘rights’ to speak authoritatively about a matter at hand in a conversation are attributed on the basis of first- or second-hand experience, ‘ownership’ of topics associated with personal experiences, known-in-common family relationships, degrees of acquaintance or friendship with persons of reference, and acknowledged differences in expertise. Epistemic analysis is set up by coding for the epistemic status of the speaker of each turn at talk in a sequence, using the

notation 'K+' to assign relatively higher status to the speaker compared to the recipient, and 'K-' to code for relatively lower status.<sup>6</sup>

A key claim made by Heritage (2012a) is that epistemic status usually is consistent with epistemic stance: that is, a speaker who uses a strong declarative form (such as A's assertion 'You're not telling me the story, Mr. B', in line 5 of the transcript) usually is attributed superior epistemic status by the recipient (and, secondarily, by the overhearing analyst). However, in cases where the grammatical format is out of line with the speaker's presumptive epistemic status, epistemic status takes priority over epistemic stance. As Raymond puts it in a summary of Heritage's position:

Where there is a mismatch between epistemic status and stance, the speaker's status 'trumps' the default orientation of the grammatical form, so that declaratives produced by K- speakers will be heard to request information, and interrogatives produced by K+ speakers will be heard to either assert information (when speakers use negative syntax) or to pose 'exam' questions<sup>7</sup> (when speakers use positive syntax) (Raymond, 2018: 64).

Critical discussions presented in a 2016 special issue of *Discourse Studies* on the 'epistemics of Epistemics', as well as in several other papers available online,<sup>8</sup> focus on claims made by Heritage, Raymond and others to the effect that epistemic considerations (concerns with knowledge and information) are 'ubiquitous' and 'omnirelevant' in conversation, and that epistemic imbalances are analogous to an engine that acts as the 'driver' of conversational sequences. These criticisms address a number of conceptual issues and support their arguments with re-analyses of transcribed extracts and commentaries presented in key publications on epistemics. One theme that runs through the criticisms has to do with the relationship between the professional conversation analyst (in this case, authors such as Heritage and Raymond who present characterizations of numerous fragments of conversation in their publications), and the parties whose recorded conversations are transcribed and presented as extracts in those publications. Briefly stated, the criticisms raise questions about the relevance of epistemic status for understanding conversational sequences, and about the ability of an overhearing professional analyst to assign epistemic status in turn-by-turn fashion.

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<sup>6</sup> Judging from different publications that deploy the K+/K- code, it is used (sometimes confusedly) for both epistemic status and epistemic stance.

<sup>7</sup> An 'exam' question is one where the speaker and recipient can presume that the speaker knows the answer and is testing whether the recipient also knows it.

<sup>8</sup> See note 4 for citations of publications in *Discourse Studies*. The editor of that journal refused to consider further contributions to the debate following the rebuttal issue, but responses to the rebuttal issue are currently available online. They include Lymer et al. (2017), Macbeth (2017), and Lynch (2018), each of which responds to an online draft of Heritage's rebuttal to the 2016 special issue, which was originally available in 2016, and eventually published in a retitled and revised paper in the 2018 rebuttal issue.



## AN EXERCISE

The transcribed extract that Sacks discusses in his ‘inference making machine’ lecture should seem amenable to epistemic analysis: it is an interrogative sequence involving an ‘imbalance of information between speaker and hearer’, and the parties use various grammatical forms (such as A’s negative interrogative in line 3 and tag-question in line 7) to express one or another epistemic stance. As an exercise, it would be instructive to work through the transcript of Sacks’ instance, and to assign the K+ and K– code to the relevant speaker of each line. For the exercise, and before reading further in this paper, go through the transcript, coding for K+, K–, or neutral epistemic *stance*. Then, go through it again using the same coding scheme for epistemic *status*. (For further information on how to do so, consult the cited publications by Heritage, Raymond, and other acknowledged authorities on epistemics.)

*Assignments of epistemic stance*

In my attempt to perform the exercise, assigning ‘stance’ seems straightforward, at least at the start. My commentaries are formatted with italics.

- 1 A: Yeah, then what happened? (K–) *This question is a straightforward solicitation of a further phase of B’s ongoing narrative; and in that sense it is a ‘request for information’.*
- 2 B: Okay, in the meantime she [wife of B] says, ‘Don’t ask the child nothing’. Well, she stepped between me and the child, and I got up to walk out the door. When she stepped between me and the child, I went to move her out of the way. And then about that time her sister had called the police. I don’t know how she ... what she ... (K+/-) *The utterance begins as the resumption of a narrative about an event that the speaker presumably witnessed, but the final line trails off into an incomplete expression professing uncertainty about how or what ‘she’ (either his sister or wife) was up to. The form (stance?) is declarative—B is telling A about a situation that he (B) was part of, but he trails off with an expression of his confusion about what had happened and how it happened.*
- 3 A: Didn’t you smack her one? (K?) *Heritage (2012a: 16) states that negative interrogative syntax is indeterminate as to whether an utterance with that form will function as a declarative or interrogative. According to Heritage, the speaker’s relative epistemic status is the key to the function the utterance performs. In this case, we can see that A’s question presents a possible reason for the sister to call the police, but it also*

*is offered for B's confirmation, and thus is 'information seeking'.*

- 4 B: No. (K+) *A straightforward negative response denying the accusatory 'proposition' presented negatively-interrogatively in the prior utterance.*
- 5 A: You're not telling me the story, Mr. B. (K+) *A declarative, unmodulated, rejection of the denial; clearly assuming a K+ stance despite being referenced to B's first-hand account.*
- 6 B: Well, you see when you say smack you mean hit. (K+) *The overt form of the utterance refers to what A means, but is declared as an objection to the word 'smack', as implying 'hit', suggesting a downgraded verb referring to a less violent action.*
- 7 A: Yeah, you shoved her. Is that it? (K+,K-) *A tag question, Heritage (2012a:14) tells us, can function as a request for confirmation (K-) or as a way to prompt a response (K+ in some such cases), and that what distinguishes between the two in a particular case 'is the epistemic status of the speaker, relative to the recipient'. In this case, the tag question following the assertion can be read to be both, or either, a prompt and a request for confirmation, and so we would need to discern the speaker's epistemic status before resolving the actual function.*
- 8 B: Yeah, I shoved her. (K+) *This response confirms the terms supplied in A's prior utterance by repeating the exact words, though whether or not it 'informs' A is another matter. It is a confessional account—which 'owns up to' terms of an accusation enunciated by A.*

### *Assignments of epistemic status*

As noted in my assignments of epistemic stance, the resolution of the 'function' of several of the utterances awaits an assignment of epistemic status. Here is my attempt to make such assignments.

- 1 A: Yeah, then what happened? (K-) *Since the reference is to a story that B is entitled to tell by virtue of his first-person access to the event, B has privileged epistemic status.*
- 2 B: Okay, in the meantime she [wife of B] says, 'Don't ask the child nothing'. Well, she stepped between me and the child, and I got up to walk out the door. When she stepped between me and the child, I went to move her out of the way. And then about that time her sister had called the police. I don't know how she ...

what she ... (K+/-) Although the story is told from the first-person standpoint (K+), and (as Sacks emphasized) A has no access to the events other than through B's telling, B should have K+ status. But, given that he has called A for help, and A is some sort of service professional (a presumptive expert, perhaps), and given that B trails off with expressions of confusion and uncertainty, we can assume that he is seeking advice, if not information.

- 3 A: Didn't you smack her one? (K?) Far from resolving the 'function' of the negative interrogative as giving or receiving information, epistemic status remains indeterminate, and perhaps irrelevant to an understanding of the action. The form of the question may request confirmation, but it also supplies a substantive account to clear up the apparent confusion B expressed toward the end of the prior utterance. However, to say that A 'informs' B about the action that he performed in the situation he describes begs the question of what 'informs' might mean.
- 4 B: No. (K+) B 'owns' the story about an event he lived through; A wasn't there, and he only knows about it through B's testimony.
- 5 A: You're not telling me the story, Mr. B. (K+) We might say that this is a bluff, designed to solicit a more honest account, since A has no experiential 'right' to tell A about events in the story B is telling. But the burden of analysis that Sacks takes up suggests otherwise: that A has strong resources for rejecting B's denial—the strong resources being a member's sense of the 'good reasons' for calling the police. One might mention his professional expertise in this context, but the resources for rejecting the denial are quite ordinary membership categories and associated actions.
- 6 B: Well, you see when you say smack you mean hit. (K+) Once again, assigning epistemic status is no less of a problem than assigning epistemic stance. Although B corrects the term 'smack', he complies with A's re-framing of the narrative to include an action that B performed that brought the police into the picture.
- 7 A: Yeah, you shoved her. Is that it? (K+,K-) Again there is no trump card. A defers to B's objection by downgrading the active verb to 'shoved', but he remains in the authoritative position of telling B what he must have done to bring the police into play.

- 8 B: Yeah, I shoved her. (K+) *B informs A that he accepts 'shoved' as an account of his previously unarticulated action—the action that brought the police into the story. But this is not a guessing game in which B holds the answer; it is more of an interrogation in which B is brought around by the interrogator to accept a less unfavorable (albeit still unfavorable) account he did not volunteer on his own.*

At least as I perform the exercise, with the exception of line (1), assigning epistemic status turns out to be problematic for both the recipient and overhearing analyst, as both stance and status are deeply intertwined and at times indissociable. It might be objected that this is an anomalous case—the anomaly being the very thing that Sacks found so interesting about the exchange: a recipient of a story, who knows about it only through the teller's first-hand account, nevertheless is able to find resources for substantially correcting the narrative. However, if we turn to another source, this sort of occurrence seems not so unusual.

#### A NOTE ON POLICE INTERROGATIONS

A recent article on police interrogations by Gary David, Anne Rawls, and James Trainum was mentioned briefly in Paul Drew's (2018a) introduction to the 'rebuttal issue' of *Discourse Studies*. Drew, as well as other contributors to that issue, attempted to demarcate the contrary positions on epistemics by treating them as expressions of a division between, on the one hand, the cumulative progression of research in CA and, on the other, a diehard adherence to Garfinkel's ethnomethodological program. To further marginalize the latter position, Drew noted the following:

By way of a footnote, [Anne] Rawls, to whom Garfinkel entrusted his legacy as his executor and so might be regarded as being fully conversant with the principles and practice of EM [ethnomethodology], has recently co-authored a paper in which this appears: 'the investigator formulates a particular *epistemic stance* (see Heritage, 2012[a]) where a position of 'knowing' is provided as a counter to the suspect's claims' (emphasis in original) (David et al., 2017: 15) (Drew 2018: 10).

When I first read this passage, I was not familiar with the article Drew cites, but after having read it, I found what follows the quotation that Drew pulls out it to be very interesting when read in light of what Sacks says about 'the inference-making machine'. David et al. analyze the following utterance from a police investigator confronting a suspect:

Investigator: I know you didn't plan this because I've talked to several people that know you. All right. I know you didn't plan this. I think somebody put you up to this, that's who

I want. ... Walter is just along for the ride. I know that because I've done my homework (David et al., 2017: 15, ellipsis in original).

David et al. point out that, while it might appear to be the case that the investigator lacks the first-hand knowledge he is soliciting from the suspect, here he is informing the suspect (or purporting to inform the suspect) that he has learned from 'several people that know you' that the situation is other than the suspect had previously claimed.

... subsequent challenges to suspect claims indicate that the police believe themselves to be operating from a more knowledgeable position (or *K+*). In retrospect this means that the initial request for a narrative is not done for information seeking purposes, but rather for confirmation purposes. This radically shifts the nature of the interaction in terms of who is thought to have primary ownership over the narrative details. The suspect has to learn that his/her story is not simply his/her story to tell (David et al., 2017: 15).

David et al. do not venture to give an account of the relative epistemic *status* in this instance, as distinct from *stance*. They point out that the investigator is soliciting a confession (or, at least, a story that can be used as adversary evidence) by making an explicit claim to know that the suspect is taking a fall for others, despite what he has previously avowed. This interrogative strategy leaves epistemic status in a radically indeterminate state; it cannot be assumed that the suspect 'owns' his story, or that the suspect will treat the 'stance' taken by the investigator as a credible knowledge-claim. David et al. give further examples in which the investigator explicitly claims to know (from others) what happened contrary to the suspect's account. For example:

Investigator: What I do care about is, when you come in here and you start telling me the story—now I've already talked to—I've already talked to everybody there. Okay? So you know who was there and I know who was there. Right? (ibid.)

They cite Heritage (2002) on the tag question ('Right?'), but they add that it is not just that the tag-question 'embeds the preferred answer in the asking of the question' (p. 13), it also strongly prompts a confirmation that is contrary to what the suspect previously claimed. Incidentally, David et al. cite Lynch & Bogen (1996: 127) on this point about leveraging testimony (p. 16). They also draw an interesting distinction concerning entitlements: 'While everybody might be entitled to their own opinion, in an interrogation context everybody is not entitled to their own story' (p. 16). Indeed, as the following exchange illustrates, investigators will go so far as to demand that the suspect tell *his* version of the story, and not someone else's, while also demanding details—against the suspect's own protestations that he does not remember them (David et al., 2017: 19):

Investigator: What, what just sort of happened exactly? Can you tell me the story of what just sort of happened?

Suspect: You say they had—

Investigator: No, No, what I say, I want to hear what you say. I don't hear what they say.

This is an opportunity for you to—

Suspect: I, I, honestly I don't remember I did this thing.

Investigator: Okay, listen, you do remember. Like I said don't, don't continue to tell me you don't remember because you do remember, okay.

Suspect: So then you want me to lie?

Investigator: I don't want you to lie.

Suspect: Just want me to agree with you?

Investigator: No, I want you to tell the truth and tell me why it happened.

These materials from police interrogations differ from the instance that Sacks describes, in that the possible 'inferences' in question are deployed in a transparent effort to solicit confessions (transparent to auditors who are familiar with the strategies of police interrogation, though perhaps not to naïve suspects who are not accompanied by counsel). The investigator claims to know more about 'the story' than the suspect has thus far told, and yet he demands a spontaneous telling that can stand as a 'freely told' confession. The investigators in the extracts David et al. describe do not deploy claims about fingerprint or DNA evidence to leverage confessions, but instead invoke the testimony of other witnesses. The investigators are not even claiming to *infer* what happened, but instead they are pressing the suspect to respond to the discrepancy between his account and what others have said.

Such cases bring into relief two related ambiguities concerning the status-stance distinction. First, it seems that ambiguities with the assignment of K+ or K- epistemic status are intertwined with those associated with epistemic stance. Second, who 'is thought to have primary ownership' of the narrative details can be contentious for participants and unsettled for overhearing analysts. At least in the cases we have examined, it would seem that professional analytic assignments of status/stance tend to be done in an *ad hoc* way.

Although David et al. cite Heritage and use the K+/K- notation without objection or qualification, how they do so does not support Drew's assertion, or his rhetorical enlisting of Rawls (as Garfinkel's expositor and literary executor) to promote the epistemic analytical framework. David, Rawls and Trainum (2017) make no use of the key distinction between epistemic status and epistemic stance; all they say, analytically, is that the interrogator presents assertive claims to know of what the suspect has withheld from his story. It is not that David et al. fail to provide a thorough instance of epistemic analysis in which epistemic stance and status are clearly distinguished, but that ambiguities with assigning epistemic status are endemic to the sequence in question.

Interrogation sequences are ripe materials for exploring epistemic analysis, because of the way they unfold as lines of questions and answers, with questions designed to solicit information from witnesses. Unlike an educator's question where the questioner has the presumptively correct answer in hand, in the cases of police interrogation discussed by

David and his colleagues, it is often unclear (and deliberately left unclear) as to who holds the K+ trump card. Interrogators claim strong grounds for knowing what the recipient is withholding, though it seems plausible and even likely that interrogators are bluffing in hopes of soliciting confessions. As with the transcript Sacks discusses, in these cases the assignment of unknowing or knowing status to interrogator and respondent (encoded as K+ and K−) may be relevant but is deeply undecidable, except perhaps in retrospect.

According to Heritage (2012a: 6), '[w]hile it may be thought that the notion of epistemic territory introduces a contingency of daunting difficulty and complexity into the study of interaction, in fact relative access to particular epistemic domains is treated as a more or less settled matter in the large bulk of ordinary interaction'. He makes exception for 'very specialized contexts such as psychoanalysis', where professionals may have license to suspend the rule that 'the thoughts, experiences, hopes, and expectations of individuals are treated as theirs to know and describe' (ibid.). He cites Sacks (1984) in support of this point, but without a specific page reference and with no mention of the many occasions besides psychoanalysis that Sacks (1992) discusses in which such epistemic domains are less than 'settled'. Although it does make sense to distinguish between language games, to consign anomalous cases to exceptional forms of 'institutional talk' ignores the extent to which they are relentlessly vernacular.

Heritage's assertion about 'the large bulk of ordinary interaction' takes the form of an empirical ('distributional') generalization, but gathering from re-analyses of the transcribed materials used to document epistemic analyses in several key publication, it seems that this generalization functions more as an assumption or 'over-hearer's maxim' (Macbeth and Wong, 2016) for making unilateral assignments of epistemic rights in circumstances where knowledge is doubtfully relevant, and where rights to know are subject to contrary resolutions, such as in a case that Lindwall et al. (2016: 511ff.) re-examine in which a speaker's assertions about her past behavior are contested by her interlocutor who speaks on behalf of what she and others had observed.

## CONCLUSION

Both the inference-making machine and the epistemic engine are fanciful metaphors. Sacks, for whom machine metaphors held an attraction throughout his career, never quite gets around to elaborating precisely how the 'machine' functions to generate inferences. Instead, the image of the machine provides leverage for elucidating an impersonal form of 'inference' based on socially available membership categories (typical categories of members used by members in an *ad hoc* way to compose reasonable accounts for other members, where 'membership' is reflexively bound to, and bounded by, those same accounts). The study by David et al. (2017) on police interrogations highlights the rhetorical invocation of 'knowledge' allegedly derived from multiple witnesses to solicit confessional admissions from suspects. In those instances, as with Sacks' example, the epistemic authority and privilege of first-person knowledge is overridden by the mobilization of

impersonal resources (the ‘machinery’) for rhetorically composing and soliciting accounts of ‘what really happened’.

The inference-making machine is rhetorically effective, if not securely bolted to the conversational floor, but the epistemic engine turns out to be an ill-designed concatenation of metaphoric tickers, gradients, and hydraulic operations. The engine stalls in conceptual confusion and belches out smoke. The primary defect is in the alternator: the distinction between epistemic stance and epistemic status that supposedly generates the engine’s action. The confusion arises, in part, from an undifferentiated conception of knowledge that conflates relevant knowledge with belief, opinion, first-hand experience, and the possession of specific items of information. However, it must be acknowledged that this engine metaphor has proved to be *influential* for the members of an inner circle of ‘latter-day’ conversational analysts who contributed to the rebuttal issue. Like Tausk’s ‘influencing machine’, it is believed to operate behind the scenes in a ubiquitous and omnirelevant way to render a member’s knowledge transparent to other members, and above all to members of a privileged circle of analysts.

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