Communication

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S produces the sounds “It’s snowing” in the presence of A, and A instantaneously comes to know that it’s snowing. S has communicated to, or told, A that it’s snowing, and, as a result of S’s speech act, A came to know that it was snowing. Philosophical interest in communication turns on four inter-related questions. The first is about the logical structure of communication, or, more specifically, about whether communication is a relation that holds among three things just in case the first communicated the second to the third. The second is about the explication, or analysis, of communication. The third is about the role of communication in the explication of linguistic meaning. And the fourth is about how knowledge is acquired by communication. The questions are inter-related in that answers to any one question may constrain answers to one or more of the others.

1. The Logical Structure of Communication

The issue about the logical structure of communication can be explained in the following way. The verb ‘to love’ stands for a two-place relation, a relation that holds between two
things just in case the first loves the second (temporal considerations are ignored for simplicity of exposition). This is indicated by the fact that if we take a sentence like
(a) Al loves Betty

and replace its singular referring expressions with variables, we obtain (what logicians call) the open sentence
(b) x loves y

This indicates that the verb ‘to love’ stands for a two-place relation, a relation that holds between two things just in case the first loves the second. Similarly, we can say that giving is a three-place relation that holds among three things just in case the first gives the second to the third, because from a sentence such as
(c) Al gave that book to Betty

we obtain the three-place open sentence
(d) x gave y to z

The issue concerning communication is whether we can likewise start with a sentence like
(e) Sally communicated that it was snowing to Abe

and obtain the open sentence
(f) x communicated y to z

If we can, then a further issue is about the sort of things that can occupy the y position. That is, what sort of things are the things we communicate, if communicating is represented by (f)? There is a philosophical issue about the logical structure of communication because there is disagreement about how to answer both questions.

The *prima facie* case for taking communication to be a three-place relation is simple: it’s the obvious way to account for the fact that (e) entails
(g) There is something that Sally communicated to Abe—to wit, that it was snowing

A possible reason to resist this first thought emerges when we ask what manner of thing is this thing, *that it was snowing*, which would be the entity Sally communicated to Abe if communication is a relation expressed by (f). For it’s apt to appear that things communicated are what philosophers nowadays call *propositions*—mind- and language-independent entities that have *truth conditions* but are not in space and have no physical
properties whatever. The trouble is that many think there are good reasons not to believe that such things exist (see e.g. Quine 1970).

It must, however, quickly be said that the immediate source of concern here is not with communication per se but with *that-clauses* in sentences like (e) and ‘Sally believes that it’s snowing’—that is, with expressions of the form ‘that S’, where ‘S’ holds the place of a sentence in the indicative mood. More generally, the concern is with what (for historical reasons we needn’t go into) philosophers call the *problem of intentionality*: Do *that*-clauses refer, or purport to refer, to entities that are believed and communicated, or do they have some other semantic function? While this is a problem that can be stated without specific reference to communication, a complete account of communication presupposes its resolution. Until we understand the semantics of *that*-clauses, we won’t know what communication is. But there is no universally accepted solution to the problem of intentionality, and for every position in logical space there are philosophers who occupy it. For about one-third of the preceding century, the American philosopher Willard von Orman Quine had so effectively stigmatized propositions that most philosophers were too frightened to believe in them; but philosophy has recovered from Quine’s influence, and most philosophers today feel that the case for propositions is stronger than any against them. At the same time, there is disagreement among propositionalists about the kind of propositions we believe and communicate. Here one finds two dominant views. The *Russellian view* (after the British philosopher and logician Bertrand Russell) holds that propositions are made up of the objects and properties our beliefs are about, while the *Fregean view* (after the German philosopher and logician Gottlob Frege) holds that propositions are made up of (what are nowadays called) *concepts*, or *modes of presentation*, of the objects and properties our beliefs are about. But even among Fregeans there is disagreement about the nature of concepts, and it’s not clear whether the difference between the Russellian and Fregean views is in practice anything more than alternative styles of bookkeeping, sinceRussellians agree that concepts are crucial to the individuation of thoughts and acts of communication. In what follows I’ll assume, what I believe to be correct (Schiffer forthcoming), that communication is a relation holding among a communicator, a communicated
proposition, and a person to whom that proposition is communicated, without prejudice as to whether those propositions are Russellian or Fregean.

2. The Explication of Communication

How can the communication relation be explicated, or analyzed? One question that falls under this rubric concerns what we can know \textit{a priori} about the concept of the communication relation. The strongest view here holds that \textit{a priori} conceptual analysis can arrive at a correct, informative, and non-circular completion of the schema

(h) \quad \text{Necessarily, for any agent } x, \text{ proposition } p, \text{ and agent } y, x \text{ communicates } p \text{ to } y \text{ if, and only if}, \ldots

Those influenced by the late British philosopher \textit{J. L. Austin}, such as the American philosopher John Searle, hold that a completion is possible that appeals to rules that are constitutive of the practice of communicating, in the way that the rules that define chess are constitutive of that practice, but none of these theorists has, to my knowledge, made any serious attempt actually to complete the schema, and in any case there are persuasive reasons to think that the appeal to “constitutive rules” is mistaken (see Austin 1962, Searle 1962, and Schiffer 1972).

The only serious attempt to provide a complete \textit{a priori} analysis of communication has been by the late British philosopher \textit{H. P. Grice} and by others who sought to improve on his attempts (Grice 1989, Schiffer 1972, and Bennett 1976). Three things are distinctive of the Gricean program. First, it attempts to define communicating \( p \) wholly in terms of the communicator’s audience-directed intentions, included in which is her intention to get her audience to believe \( p \). Second, the means by which the audience is intended to arrive at his belief is by taking the communicator’s perceptible act (e.g., her uttering certain sounds) as evidence that she performed that act intending to get her audience to believe \( p \), and then to take her having that intention as evidence that she herself believes, or believes she knows, \( p \), and then taking her believing (she knows) \( p \) as good evidence that \( p \) is true. So, when Abe came to know that it was snowing as a result of Sally’s telling him that it was snowing, his knowing is due to his having adequate evidence—viz., the fact that Sally believed (she knew) that it was snowing—for the fact that it was snowing. Third, linguistic meaning—the meanings of natural language.
expressions—was then to be defined in terms of the now reduced notion of communication (or, more accurately, in terms of a reduced notion of speaker meaning that includes telling as a species of speaker meaning). In the end, one would have a reduction of the semantic to the psychological, which, we’ll presently notice, would set the stage for a reduction of psychological facts to physical or topic-neutral facts—facts, such as the fact that one event was caused by another, which don’t entail but are consistent with there being no non-topic-neutral facts other than physical facts. (Functional facts are topic-neutral facts that pertain to the causal or counterfactual relations relating internal states to one another and to sensory input and behavioral output.)

Conceptual analysis of the kind practiced by Griceans is now generally regarded as so last century. In addition to this general skepticism about definition-seeking conceptual analysis, there are specific problems with the best efforts in the Gricean tradition. It has proved very difficult to state non-semantic conditions that are jointly sufficient for communicating that such-and-such; the complexity of the analyses inevitably proffered in the attempt to get sufficient conditions makes one doubt that ordinary speakers have the super-subtle intentions those accounts ascribe to them; and, related to these problems, it seems that if we subtract from a speaker’s intentions her intention to be telling her audience that such-and-such, we aren’t left with enough non-semantic propositional attitudes (i.e., thought states that have propositional content) in terms of which one could define communication (see Schiffer 1987, pp. 242-9).

Armchair reflection on the concept of communication can yield important necessary truths about communication, but it’s doubtful it can yield a definition, let alone a definition in wholly non-semantic terms.

Much more influential than attempts to define communication have been attempts to show that communication facts, like all other intentional facts, stand in a relation to physical facts which renders the intentional facts naturalistically respectable. But there is no universally accepted view about what is required to render the intentional a respectable part of the natural order. Some philosophers insist that intentional properties and relations be identical to physical properties and relations. Such an identity needn’t be discovered by a priori conceptual analysis; it could have as its model the a posteriori
identification of, e.g., heat with molecular motion. Yet this insistence seems chimerical when the intentional relations are relations to propositions. For the idea of a physical relation to propositions is evidently incomprehensible (what on earth could be a physical relation to the proposition that \(1^2 + 1^2 = 2\)?). More promising is the idea that propositional-attitude relations like believing are functional/causal relations. If there are such identifications, it’s doubtful they can be discovered by a priori conceptual analysis, and the reasons for supposing that there are a posteriori, scientifically discoverable identifications of propositional-attitude relations with particular functional/causal relations are considerably less than compelling, typically based either on implausible views about what is required by the “unity of science,” the way in which the various special sciences are related to one another and depend on fundamental physics, or on a naive conception of what is required for propositional-attitude properties to play the causal/explanatory roles they evidently do play.

A weaker position, but one accepted by many, is that while intentional relations can’t be identified with physical or topic-neutral relations, nevertheless all intentional facts supervene on non-intentional facts in that there couldn’t be two possible worlds that were identical as regards their non-intentional facts but not as regards their intentional facts. This position faces the challenge of having to offer some sort of explanation of the supervenience relation that anchors the intentional in the non-intentional, rather than taking that supervenience simply as a brute, inexplicable fact (see Schiffer forthcoming).

Finally, there are those who are content to hold a neo-Cartesian dualism wherein the intentional doesn’t supervene on the non-intentional but does play the causal-explanatory role it appears to play (see Bealer forthcoming). The trouble with this view, however, is that it’s very difficult to see how the intentional could plausibly play its causal role without the sort of reliance on underlying physical facts which the dualism precludes. Those who hold the neo-Cartesian dualism will doubtless appeal to causal relations between intentional states and their underlying physical states, but the difficulty just alluded to is precisely that of making sense of there being psychophysical causal laws or mechanisms capable of sustaining the alleged causal relations.

3. Communication and the Explication of Linguistic Meaning
What is it for marks or sounds to have meaning in a given population? Obviously, it has something to do with how the members of that population use, or are apt to use, those marks or sounds. If what we’re concerned with is meaning in a public language like English or French, then it’s reasonable to think that the use of those marks or sounds in communication looms large in the answer. On this much all agree, and David Lewis (1983) has provided an elegant framework for posing the further questions about the explication of linguistic meaning and the role of communication in it. Think of a language as an abstract object that may or may not be used by anyone; more specifically, think of it as a mapping of sequences of marks or sounds onto those things that are sentence meanings—propositions, perhaps, or, more likely, abstract entities that determine a specific kind of speech act and propositional content. Then the problem is to say what relation must obtain between a population of persons and a language so conceived in order for that language to be a language of that population. It’s likely that this question enjoys no neat answer in terms of a single set of necessary and sufficient conditions, but it’s probably not unreasonable to suppose that sufficient conditions can be stated that in fact explain what it is by virtue of which particular languages are used by particular populations. Such sufficient conditions will include communicative speech acts, but: What other kinds of speech acts? Can a unified account of speaker meaning be provided which subsumes all relevant speech acts? If so, are the Griceans right in claiming that those speech acts can be explicited in wholly psychological terms, thereby yielding a reduction of all public-language semantic facts to psychological facts? How exactly will the relevant kinds of speech acts enter into the account of what makes a language a language of a given population? Will some notion of convention be needed here? If so, what sorts of conventions, and how is the relevant notion of convention itself to be explicited? There is little agreement on how these questions should be answered, and, anyway, philosophers have lately lost interest in the questions. Of much more contemporary interest is the explication of meaning in systems of mental representation, and it’s not plausible that that explication needs recourse to communication (see Field 1978, Schiffer 1987).

4. Knowledge by Testimony
Knowledge by testimony is the knowledge gained via communication; it’s knowing something because it was told to you. The liveliest issue at present about communication concerns the nature of this knowledge. It’s a lively issue because a certain view that was more or less taken for granted has recently been challenged. In order to understand what is at issue, we need to see what the assumed view was, what objections have been brought against it, and what new view, or views, of knowledge by testimony has been proposed in its place.

If one knows \( p \), then \( p \) is true and whatever justifies one in believing \( p \) is what elevates one’s true belief to knowledge. Accordingly, disputes about the nature of knowledge by testimony are disputes about the kind of knowledge-providing *justification* for one’s believing \( p \) when one knows \( p \) by virtue of having been told \( p \). The long-standing view only recently challenged is that this justification is just the ordinary sort of empirical justification one has whenever one knows something because one has adequate empirical evidence for it. There is no established view about what exactly such knowledge consists in, but part of the traditional view is the idea that there is a single set of topic-neutral epistemic principles that license one’s taking the truth of any proposition to be evidence for the truth of any other proposition. Examples of knowledge gained in this way would be one’s knowing that Smith murdered Jones on the basis of such-and-such DNA and fingerprint evidence; one’s knowing that one’s cat had been on the kitchen table on the basis of seeing cat hairs on the table; one’s knowing that a smoker had recently been in the room on the basis of seeing a smoldering cigarette in the ashtray; and so on. In the case of communication, the idea, applied to an example, is that when Abe comes to know that it’s snowing because Sally told him that, his knowledge-providing justification is his taking Sally’s utterance of ‘It’s snowing’ to be adequate empirical evidence that it was snowing, and that his so taking it is based not on any special faculty or principles of testimony but on ordinary empirical knowledge together with general inductive and deductive procedures. The Gricean conception of communication, as ordinarily conceived, presupposes this evidential view of knowledge by testimony. On this view, the key ingredient in Abe’s coming to know that it’s snowing is that he takes Sally’s utterance to be evidence that she believes she knows that it’s snowing, and his taking her having that belief to be evidence that it’s snowing. None
of this is to say that Abe is consciously thinking thoughts, or making inferences, about what Sally thinks, any more than you’re consciously thinking the thoughts, or making the inferences, involved in your inductive justification when you see the smoldering cigarette and instantaneously conclude that someone has recently been smoking in the room. On this conception, knowledge by testimony reduces to knowledge gained by other means—by perception, memory, demonstrative and non-demonstrative inference—and no more requires special epistemological mechanisms or principles of its own than does, say, knowledge gained by police detection.

Philosophers who reject the traditional conception of knowledge by testimony do so for two reasons: first, they have positive reasons for thinking that it can’t account for all that we know by testimony, and second, they have at hand an alternative conception of knowledge by testimony. As regards the direct objections to the traditional conception, C. A. J. Coady (1992) argues that if we took away all of an agent’s knowledge based on testimony that itself didn’t depend on other knowledge by testimony, there wouldn’t then be the wherewithal to provide adequate empirical justifications for beliefs based on testimony. Tyler Burge has objected that while in gaining knowledge by testimony we rely on a presumption of reliability, we “need not engage in reasoning about the person’s qualifications to be rational in accepting what he or she says, in the absence of grounds for doubt” (1993, p. 469). This is evidently the sort of consideration also at work behind Robert Audi’s claim that knowledge by testimony is typically not inferential. Certainly when trusted friends speak to us on matters we have no reason to think are beyond their competence, we normally “just believe” what they tell us. (1998, p. 132)

Those who reject the traditional view hold that knowledge by testimony, in the typical case, is immediate and non-inferential. Sometimes this is developed via an analogy with the way in which perceptual knowledge is thought to be immediate and non-inferential (see Coady 1992). According to Burge (1993), we have an a priori entitlement to believe what we’re told immediately without argument or evidence, unless there are stronger reasons not to do so.
The direct objections aren’t persuasive. Coady presupposes that if knowledge by testimony were inferential (in the sense in which taking one thing to be evidence for another is inferential), then the inferences involved would rely on general beliefs about the reliability of testimony. This is unwarranted. On the most plausible inferential account, the crucial thing on which interlocutors rely is their commonsense knowledge of what would explain a given person’s having a certain belief. Abe, for example, comes to believe that it’s snowing because he comes to believe that Sally believes she knows that it’s snowing, and, using his general knowledge about the sorts of ways one is likely to acquire such a belief, Abe believes that it’s very unlikely that Sally would have her belief if it weren’t snowing. The status of the relied-upon folk psychological theory may be taken to be on all fours with the status of the commonsense physical theory we rely on in forming our beliefs about the movements of physical objects.

As for the Burge-Audi objection, if believing what someone says off the bat, or not needing to engage in reasoning about a person’s qualifications, were a reason for taking knowledge by testimony to be non-evidential, we could easily be shown not to have most of the evidential knowledge we have. What “reasoning” is one actively and consciously engaged in when one immediately concludes from the sight of a wet sidewalk that it recently rained, or when one immediately believes that one’s Vermeer has been stolen upon seeing that one’s alarm system has been disabled and that one’s back door is wide open? Whether knowledge is based on inference from evidence isn’t about the actual movement of thought, the considerations one actually ponders; it’s about the structure of beliefs that sustain one’s conclusion. What justifies our beliefs about the rain and the Vermeer, and what justifies our taking those examples to be examples of evidential knowledge, is that they involve inferences to the correct explanation. One takes the wet streets to be evidence that it rained because one believes that the streets are wet because it rained; one takes recent rain to be the correct explanation of why the streets are wet. Likewise, when one sees the disabled alarm system and open door, one immediately and unhesitatingly makes an inference to the explanation whose ingredients include the intentional disabling of the alarm by a thief whose motivation was to get the only thing of value in the house and who successfully made his escape, Vermeer in hand, via the back door.
Likewise, when Abe unhesitatingly accepts Sally’s statement that it’s snowing, he instantaneously makes an inference to an explanation of her utterance which entails that she believed she knew it was snowing and that part of the explanation of this is that it was snowing. Proponents of the non-evidential view will concede that Abe wouldn’t believe that it was snowing if he also thought either that Sally didn’t believe that or that her belief wasn’t partly explained by the fact that it was snowing, but they will then claim that it’s not necessary that Abe actually believe that Sally had her belief or that she had it because it was snowing. This is a mistake; Abe needn’t consciously ponder any thoughts, but he must have the beliefs in question, just as you must actually have the belief that the streets are wet because it rained when you see the streets and instantaneously form the belief that it rained, even though, so to say, that belief need never have consciously crossed your mind. Nor does it matter that Abe should form his belief while knowing next to nothing about Sally. For suppose you now learn, in whatever way you care to imagine, that I believe I know that my middle name is ‘Richard’. Even if you only know me as the author of this article, you would almost certainly yourself believe that my middle name is ‘Richard’. Why so? Because, as you know, it’s extremely unlikely that a philosophy professor who’s coherent and sane enough to write this article would be mistaken about his middle name. On the other hand, your knowing that I believe that the law of excluded middle isn’t determinately true or that so-and-so will win the next U.S. presidential election probably wouldn’t significantly affect your beliefs about those propositions.

Philosophers who reject the evidential view may do so because they’re mistaken about what’s required to know something on the basis of an inference to the correct explanation. Two points seem relevant in this connection. First, in forming one belief a person may be relying on another belief even though the second is merely tacit, never brought to conscious thought. When you see the wet streets and actively believe that it rained during the night, you probably at no time entertained or actively believed that the streets are wet because it rained last night; yet you believe that all the same and wouldn’t believe that it rained last night if you didn’t. Likewise, Abe, in coming to believe that it snowed, probably doesn’t actively believe that Sally wouldn’t believe that it snowed if it hadn’t snowed, but he does have that belief and wouldn’t believe that it snowed if he
didn’t. Second, a seven-year-old child may know that it rained on the basis of his perception of wet streets, and this because he knows that the streets are wet because it rained. But how does our seven-year-old know that? It’s unlikely that he spent any time actually considering alternative explanations of the streets’ wetness. The fact is, I submit, knowledge-providing justification is pretty easy to come by in cases like this; we’re pretty relaxed in our ascriptions of knowledge in such cases, at least when nothing more is at stake. We count the child as knowing because we think he’s right and because we don’t think there’s an alternative explanation of what made the streets wet that’s a plausible competitor. Come to think of it, what’s true of the child is true of most adults, or else we have very little evidential knowledge. We count someone as knowing, on the basis of his perception of wet streets, that it rained even though if asked to rule out alternative explanations of the streets’ being wet he wouldn’t be able to articulate much of anything.

All that’s required for knowledge by testimony to be evidential is that when we’re justified in believing p because we were told p, then, roughly speaking, we’re also justified in believing that the speaker wouldn’t have told us p unless she believed she knew p and that she wouldn’t have that belief if p weren’t the case. Moreover, as already indicated, to be justified in thinking that someone wouldn’t have told us p if she hadn’t believed (she knew) p needn’t require any special antecedent knowledge of the speaker’s honesty or reliability. I’m giving a talk on an unfamiliar campus and ask an unknown professorial looking man where Blah-Blah Hall is. He points to a visible building; I head off in what I’m confident is the right direction. But how did I know he wasn’t lying, crazy, mistaken, etc.? By inference to the correct explanation; the assumption that he’s expressing his belief, etc., is entailed by my tacit explanation of why he pointed and spoke as he did.

One who holds that Abe has non-evidential knowledge by testimony that it’s snowing might concede that Abe has a justified true belief that Sally believes it’s snowing in part because it is snowing, but yet insist that his justification is not good enough to yield knowledge. This isn’t very plausible. Abe knows that if it’s snowing, then Sally believes it’s snowing in part because it is snowing. So in order for him not to know the consequent of the conditional he knows, it would have to be possible—since
it’s agreed that Abe knows it’s snowing—for one to know \([p \& \text{if } p, q]\) and not know \(q\).

And while there are indeed those who are willing to hold that this is possible (see Dretske 1970, Nozick 1981), it remains extremely counter-intuitive and is widely rejected.

I now know that the cup before me is red. I also know that its being red is the correct explanation of why I’m having the visual experience I’m now having. Yet my knowing that the cup is red may in this case be overdetermined, both direct and based on the evidence of my visual experience. In this case it’s not unreasonable to suppose that, in addition to my evidential knowledge that the cup is red, I also have immediate and non-evidential knowledge that the cup is red. For it’s not unreasonable to suppose that, given the way we’re built as information processors, my having my visual experience would cause me to believe that the cup was red even if I didn’t have the conceptual wherewithal to form a belief about my sensory experience or its causes. This is evidently the moral to be drawn from the perceptual knowledge of certain animals and very young children. But knowledge by testimony seems disanalogous in an important respect.

While very young children seem to believe what they’re told even though they’re conceptually unable to form beliefs about the beliefs of speakers or about the etiology of those beliefs, it’s also the case that it’s very difficult to see how there could be communication in public language by creatures who didn’t have a fairly rich commonsense propositional-attitude theory that allowed them reliably to ascribe beliefs to others and to form reliable hypotheses about the etiology of those beliefs. What we can conclude is that when an adult gains knowledge by testimony, it’s because he knows that the speaker believes (she knows) the communicated proposition and that she has that belief in part because the communicated proposition is true. Whether anything like knowledge by testimony could occur in mature creatures who didn’t tacitly form such beliefs about the beliefs of speakers is perhaps to some extent an open question. If it is possible, then perhaps we should allow that knowledge by testimony is overdetermined; but whether or not it’s overdetermined, the knowledge by testimony actually gained by mature persons is arguably evidential.
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