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Different Kinds of Conversational Perspective-Taking

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Consider this interchange between an interviewer(*I*) and respondent (*R*) in a major national survey (reported in Suchman & Jordan, 1991):[1]

I: Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what.
R: As a person.
I: As a Republican::
R: No.
I: Democrat::
R: No.
I: Independent or what.
R: Uhm:: I think of myself as a (pause) Christian.
I: OK. (Writing) But politically, would you have any particular::(inaudible)
R: I am one of Jehovah's Witnesses so, you know, when it comes to::
I: I see.
R: So I'm, I am acclimated toward government, but it is that of Jehovah God's kingdom.
I: Yes.

This interviewer and respondent are seriously obstructing each other, even though their conversation is orderly on its surface. The respondent—perhaps deliberately—takes the interviewer's question to be about self-concept rather than political affiliation. The interviewer, following her employers' instructions, keeps asking the same question after the respondent has already given evidence of being unwilling or unable to answer it on the survey's terms. The respondent and interviewer have different conceptions of what phrases like "or what" mean, different conversational agendas, and (most likely) different world views. In some

[1] In this excerpt, double colons indicate that speakers have lengthened words.

sense, they have such different perspectives on what is going on that they don't even seem to be engaged in the same activity.

An extreme example like this one shows just how important the coordination of perspectives is to successful communication. It also highlights the fact that many different kinds of perspective are simultaneously present in conversation. Conversational participants have their own world views, conversational agendas, and conceptions of how particular phrases are intended. They also have physical vantage points from which they speak. Differences in any of these perspectives can lead them to have trouble or to use extra effort in understanding each other.

Some researchers have explicitly or implicitly taken perspective-taking to be a (if not *the*) fundamental task of communication (see, e.g., Fisher & Ury, 1981; Flavell, Botkin, Fry, Wright, & Jarvis, 1968; Gottman, Notarius, Gonso, & Markman, 1976; Graumann, 1989; Graumann & Sommer, 1988; Krauss & Fussell, 1991; Piaget, 1959; Reithaug, 1984; Stein, Bernas, Calicchia, & Wright, 1996). In successful communication, according to this view, at least one party takes the other's perspective. Communication is unsuccessful when neither party manages to mentally "step into the other's shoes," to be non-egocentric. Both speakers and addressees can take each other's perspectives. When Madeline speaks to Dorothy, she can design her utterances to be understandable from Dorothy's point of view. When Dorothy understands what Madeline has said, Dorothy sees things from the perspective Madeline has taken, at least for the moment.

My aim here is to examine some of the different kinds of perspectives that can simultaneously be present in conversations. As I will propose, in taking the different kinds of perspectives conversational participants have different kinds of evidence available to them, some tangible and some tenuous. When the perspective-taking evidence is more tenuous, characterizing speakers' perspective options and certain other aspects of conversational coordination is more difficult. Perspective-taking in conversation turns out to be far more complicated than it at first appears.

DIFFERENT KINDS OF PERSPECTIVE

Theorists from different areas of psychology have had different notions of what a perspective is (for discussions, see Graumann, 1989; Krauss & Fussell, 1988). As Krauss and Fussell (1996) have pointed out, one can conceive of a person's perspective as encompassing just about any aspect of a person, from relatively stable features like beliefs and attitudes to changing features like physical vantage points and current states of comprehension. Here I will focus on four of the different ways that "perspective" has been used: (a) as a speaker's time, place and identity; (b) as a speaker's conceptualizations; (c) as a speaker's

conversational agenda; and (d) as a speaker's knowledge. In describing all these phenomena as perspectives, I don't mean to suggest that this is the only way they can be conceived; they may well be separate phenomena, as many researchers in language and communication have assumed. Rather, I propose that because they have all been labeled *perspectives*, it is worth examining whether they are coordinated in conversation in the same ways.

Perspective as Speaker's Time, Place, and Identity

One major sort of perspective is the kind found in *deictic* or *indexical* expressions (Fillmore, 1977, 1982; Levelt, 1989), whose referents depend on their occasions of use. When speakers use deictic terms they express something about their identity, their location, and their time—their perspective on the world, at least for the moment. Terms like *I* and *you* usually show that the origin of the utterance is the current speaker. Deictic expressions of time like *now*, *then*, *today*, *yesterday*, *next year*, etc. usually indicate the moment or general time period that the speaker must be in. Similarly, deictic expressions of place usually indicate a speaker's physical location and vantage point. A speaker who uses *here*, *there*, *this*, *that*, *come*, or *go* is expressing his or her situatedness in a particular location.

Deictic expressions do not only specify the speaker's own time, place and identity. Speakers can use them to specify the identity and situation of other people too, as when they use *I* while quoting or reporting someone else's speech. And there are other ways they can use deictic expressions to take another person's point of view (see Brown & Levinson, 1987). For example, speakers who want to express solidarity sometimes switch "person-center," speaking as if they were the addressee—"Yes dear, it hurts terribly, I know," (Brown & Levinson, 1987). Speakers can shift to another time by using different verb tenses, as when they switch to the "vivid present" when telling stories—"And Mia says to Bill . . ." (see Wolfson, 1982). Speakers can shift place with demonstratives (using *here* rather than *there*, *this* rather than *that*) or with verbs of movement (*come* rather than *go*, *bring* rather than *take*).

One of the most well-studied kinds of deictic expression is the kind found in descriptions of locations or spatial relations, which almost always reflect particular vantage points on a scene. Different researchers have come up with different terminologies to categorize these perspectives, and they sometimes use the same terms to mean different things (see Levinson, 1996, for a discussion). To give an idea of the complications involved, some researchers (e.g., Levelt, 1989; Miller & Johnson-Laird, 1976) contrast the speaker's perspective (deictic) with all other perspectives (intrinsic, thus grouping the addressee's point of view with the point of view of any inanimate objects in the scene (intrinsic). Another set of researchers (e.g., Herskovits, 1986; Retz-Schmidt, 1988) contrast

the perspective of all speakers in the conversation (deictic) with all other possible perspectives (intrinsic), thus classifying the point of view of the addressee with the speaker's (deictic).

To avoid this kind of confusion, I will use the terms I proposed in Schober (1995, in press). Imagine that Monica and Tom are conversing face to face in a room. A chair is between them, facing to Monica's left. Monica has many choices of frames of reference as she describes the location of a potted plant in the room. She could describe the plant's location from her own *speaker-centered* perspective as "on the right" (or as "on my right," if she wants to indicate the frame of reference explicitly). She could describe the same location from Tom's perspective, using an *addressee-centered* description like "on the left" (or "on your left"). She could describe the plant's location using an *object-centered* description that uses the chair's frame of reference—"behind the chair." Or she could describe the plant's location with an *environment-centered* description that reflects an external or "absolute" reference frame—"in the back of the room" or "at the north end."

There are other options as well. Each of these perspectives has subtypes. For example, Lang, Carstensen, and Simmons (1991) detail different kinds of object-centered perspectives; Levelt (1989) details different kinds of deictic perspectives. And descriptions can simultaneously reflect multiple perspectives. For example, if Monica's and Tom's vantage points are similar, the same plant could be located "on the left" (or "on our left"), reflecting one or the other or both of their perspectives. Or the plant "in back" could be both in back of the chair (object-centered) and at the back of the room (environment-centered) (see Schober, 1993, 1995). Finally, spatial descriptions like "between" and "near" are *neutral* with respect to perspective (even though they use objects as reference points): They do not reflect any coordinate system at all, because they hold no matter what the vantage points of any people or objects in the scene are, and no matter what coordinates the environment provides. Such descriptions have been called, variously, "local references without a coordinate system" (Levelt, 1989); descriptions "ohne erschliessbare Origobesetzung," that is, without a recoverable frame of reference (Herrmann, Dietrich, Egel, & Hornung, 1988); topological localizations (Egel & Carroll, 1988); descriptions in a "landmark" frame of reference (Craton, Elicker, Plumert, & Pick, 1990; Pick, Yonas, & Rieser, 1979); and neutral descriptions (Schober, 1995).

Perspective as Conceptualization

Another kind of perspective is what I will call conceptualization—the way a speaker characterizes the topic under discussion for the moment, as conventionally indicated by the linguistic form. Every choice of linguistic form reflects one take on the situation, event, object, or location it describes

(see E. V. Clark, 1990, 1995) and limits the set of possible interpretations (H. H. Clark, 1991). Speakers' conceptualizations of the topic under discussion can be seen at several different levels—in the words they use, the propositions they use, and in their more extended discourse forms.

At the word level, different words presuppose different ways of conceiving of their referents (see E. V. Clark's [1987] principle of contrast; H. H. Clark & Schober, 1991; Ravn, 1987). This is true of all sorts of words. The same object can legitimately be referred to as "Boots," "that awful cat," and "my pet." The same set of more abstract entities can legitimately be called "the media," "those bloodsuckers," and "the voice of the people." The same action can reasonably be called "moving," "running," or "whizzing by." A location can be described as "to the left" or "on the left"; "*to* the left" presupposes an implicit path of motion, while "*on* the left" is a static conceptualization (see Talmy, 1975, 1983). (This last example highlights the fact that conceptualization differs from spatial perspective. These two descriptions differ in conceptualization, but they both reflect the same frame of reference.)

Conceptualizations can also be seen in speakers' choices of propositions. Like words, propositions also reflect one possible way of characterizing the event or state of affairs they describe, one way of breaking down the event or situation into component parts. Every time a speaker chooses one particular framing of an event or situation, she has chosen one possible perspective on it. To use H. H. Clark and E. V. Clark's (1977) term, speakers constantly solve the problem of "experiential chunking," that is, the problem of how to break down the events and experiences they want to talk about into units. Linda can describe Fred's act of locomotion with the utterance "Fred walked," but she can talk about exactly the same act very differently by chunking it into a set of component actions: "Fred lifted his left foot while swinging his right arm, brought down his weight on his left foot, and then lifted his right foot." These different descriptions characterize the action differently—they reflect different perspectives.

In a related vein, speakers describing spatial scenes have to choose how to "linearize" their descriptions—how to organize the 2- or 3-dimensional information present in the situation into the linear sequence that speaking requires. For example, speakers describing an apartment can take a mental tour of the apartment starting at the entrance and traveling room to room, or they can give a more hierarchical structural description, describing all the bedrooms before describing all the bathrooms (see Linde & Labov, 1975; Ullmer-Ehrich, 1982). As another example, speakers can localize an object by starting with local details and ending up with the global picture ("the vase on the table in the living room"), or they can start with the global picture and end with local details ("in the living room there's a table that has a vase on it") (Plumert, Carswell, De Vet, & Ihrig, 1995). In both examples, each alternate linearization

reflects a different take on the situation—a different conceptualization or perspective.

These conceptualizations reflect what words and propositions *conventionally* indicate. Of course, neither words nor propositions reflect exactly the same perspectives across all contexts. "That awful cat" can be an epithet, a detached description, or a term of endearment. But such different uses of "that awful cat" are conceptually related in a way that alternative formulations are not. And even though alternate wordings can reflect similar attitudes or underlying intentions (*illocutionary forces*, to use the technical term), as when "my pet" and "that awful cat" are both used as endearments, they still differ conceptually.

Here is another level where one can see conceptualizations operating in propositions. Speakers can word the same message differently so as to highlight different thematic material (Fillmore, 1977; Levelt, 1989), and each wording reflects a different perspective. For example, when Betsy uses an active-voice sentence like "The cat swallowed the insect," she has foregrounded the agent of this action (*cat*), even though she could have foregrounded the patient (*insect*) with a passive-voice sentence like "The insect was swallowed by the cat." In addition to voice, speakers can use aspect, mood, and other linguistic devices to convey different perspectives (see E. V. Clark, 1990). Unlike the kinds of wording- and proposition-level perspectives I just described, these kinds of conceptualization have to do not with how the elements of the proposition are selected, but with how already-selected elements are expressed.

Conceptualizations can span units larger than the individual proposition. For Lakoff and Johnson (1980), for example, utterances reflect underlying conceptualizations (or "metaphors," in their terminology). Jenny's utterances "I am really drawn to Phil" and "There was real electricity between us" both reflect an underlying conceptualization of LOVE AS A PHYSICAL FORCE. This conceptualization differs from an alternative conceptualization of LOVE AS A JOURNEY, which can be seen in utterances like "We have come a long way together" and "We were stuck in a rut."

These various sorts of conceptual perspectives—word-level, proposition-level, metaphor-level—are interrelated. A speaker's word choices reflect conceptualizations, and these constrain the kinds of sentences the speaker utters. Sentence-level choices affect the global shape of the discourse. Similarly, global discourse-level perspective choices affect both the forms of sentence-level propositions and lexical choices.

Although these phenomena have all been called perspectives, I realize that I am traversing terrain that has also been named differently. Some researchers would call the conceptualization that a word implies the word's semantics or its

entailments.[2] Other researchers have used "thematic structure" or even "grammatical structure" to indicate what I am calling the conceptualization implied by a proposition's organization (see Levelt, 1989). Again, my point is not that the only way to conceive of these phenomena is as perspectives. But I believe it is useful to consider them as perspectives so as to compare how the different kinds are coordinated conversationally.

Perspective as Conversational Agenda

Perspective has been used to describe what might be called the agendas, the underlying intentions, or the purposes behind utterances in conversation. The notions of intentionality and purpose are extremely tricky and raise unsolved (perhaps unsolvable) problems of definition (see, e.g., Ajzen, 1988; Craig, 1986, 1990; Davidson, 1980; Fishbein & Ajzen, 1975; Levelt, 1992). But they have nonetheless been invoked as perspectives that speakers take.

I mean this category to include not only the intentions underlying single utterances but also conversational agendas that stretch beyond single utterances. These agendas can take different forms. In the example at the start of this chapter, the interviewer's conversational agenda could be called "following the script in a standardized survey interview," while the respondent's agenda could not. To take another case, conversational participants can believe they are both engaged in small talk or in serious talk; when their agendas are mismatched, utterances like "How are you?" can be interpreted quite differently. Here are some other examples: Andrea's purpose can be to communicate in great detail, but Alex may be speaking in vague generalities (see Russell & Schober, 1997; Wilkes-Gibbs, 1986). Julie might mean "let's do lunch" as a serious invitation, but Paul might mistake it for a platitude (see Isaacs & H. H. Clark, 1990). Connie might mean "that adorable cat" quite earnestly, but Evan might mean it sarcastically under the agenda of engaging in insulting banter.

In what sense exactly do these speakers have different perspectives on these utterances? More traditional accounts would consider these speakers to have different plans, different discourse goals, or different indirect illocutionary intentions. As with my other perspective categories, I don't mean to suggest that considering them to be perspectives is the only possible analysis. Rather, I mean to be taking seriously a notion like that found in Keysar (1994): If an addressee (or a reader of a retrospective account of a conversational interchange) mistakenly takes the speaker's ironic banter as earnest, the addressee (or reader)

[2] In a way, saying that words imply different conceptualizations and that the same objects can be referred to differently is a restatement of the distinction between sense and reference. To use the classic example, both "the morning star" and "the evening star" refer to the same entity, but the phrases have different senses—what I would call different conventional conceptualizations.

has missed the speaker's perspective (Keysar, 1994). Under this notion, speakers who understand each other's agendas are aware of each other's perspectives.

Note that speakers can simultaneously have several underlying agendas, as when they intend the same utterance to have different forces for different listeners (H. H. Clark & Carlson, 1982), or when they intend their utterances to have equivocal implications (Bavelas, Black, Chovil, & Mullett, 1990). It is unclear whether one should say such speakers have several simultaneous perspectives or one perspective that is the sum of their different intentions.

Perspective as Knowledge

Perspective has also been conceived of as people's background beliefs and thoughts. Unlike the other three kinds of perspective I have described, which reflect the momentary stances people take, this kind of perspective is seen as a relatively stable feature of a person. A person's perspective on the world consists of the way he or she thinks and perceives—his or her knowledge, beliefs, opinions, attitudes, values, cognitive styles, etc. (see, e.g., Fisher & Ury, 1981; Gottman et al., 1976; Graumann, 1989; Hastorf & Cantril, 1954; Regan & Totten, 1975; Ross, 1977). For lack of one unifying term I will call this kind of perspective *knowledge*. But I mean this perspective to encompass beliefs and opinions and values, and I mean for it to range in scope from single pieces of knowledge to large-scale webs of belief or world views.

People's knowledge and world views motivate their choices of conceptualization (whether at the word or proposition level) and their agendas. Die-hard militarists are more likely than die-hard pacifists to refer to a weapon as a "peacekeeping device" (conceptualization) and to mean it earnestly (agenda). If pacifists use "peacekeeping device" at all, their agenda is more likely to be ironic. And people's choices of conceptualizations and agendas give evidence about their world views. A speaker whose vocabulary reflects highly specialized knowledge about opera is likely to be an opera specialist, or at least an opera buff. A speaker who consistently uses bigoted terms without apology is liable to be considered a bigot.

At first blush it might seem that knowledge is not a language-relevant perspective in the same way that conceptualization and agenda are. Rather, knowledge seems to supply the motive for producing utterances with particular conceptualizations and agendas. But this can't be quite right: At least on some occasions, knowledge must operate at a distinct level. This is because one's assessments of speakers' knowledge can form the basis of how one interprets speakers' agendas and conceptualizations. For example, one's interpretation of "that delightful cat" as ironic can convince one that a speaker shares one's knowledge that the cat has misbehaved, or one can interpret the phrase as ironic because one already knows the speaker knew about the cat's misbehavior.

On this view of perspective, Susan takes Harrison's perspective when Susan considers Harrison's group membership, character, or experiences as she speaks to him or interprets what he says. This is the view held by those who consider that speakers (or writers) are taking their addressees' (or readers') perspectives when they tailor their utterances for their addressees or readers—that is, when they follow a principle of audience design (e.g., Fussell & Krauss, 1989, 1992; Traxler & Gernsbacher, 1993). It is also the view held by those who say that people speaking at the appropriate level of expertise for their conversational partner are taking the partner's perspective (e.g., Isaacs & H. H. Clark, 1987; Shatz & Gelman, 1973).

HOW DO PEOPLE INFER EACH OTHER'S PERSPECTIVES IN CONVERSATION?

If perspective-taking is fundamental to communicating, then a basic question is how people know the perspectives of their conversational partners. People don't have direct access to each other's private thoughts and experiences, and they don't experience the world through other people's eyes. So perspective-taking is a matter of inference. As with all inferences, there is always the risk of being wrong, like Saki's character Francesca, who "prided herself on being able to see things from other people's points of view, which meant, as it usually does, that she could see her own point of view from various aspects." (Saki, 1912/1988, p. 587). And inferences can never access *all* aspects of another person's mental life. People have inexpressible experiences that they can't share and private thoughts that they choose to conceal.

But people do have grounds from which they can infer certain aspects of others' perspectives. At any moment in a conversation people have a great deal of evidence about their partners at their disposal (see Brennan, 1990; H. H. Clark & Marshall, 1981). Some of this evidence is solid, as it relies on what can be observed physically; some is more tenuous, as it relies on additional inferences and beliefs, which may or may not be justified. This evidence includes:

1. Immediate perceptions of the physical setting of the conversation. Perspectives can be inferred from what each conversational partner can perceive and from judgments of which parts of the perceptual environment are shared.

2. The utterances themselves. Perspectives can be inferred from the words and propositions in those utterances, in that they conventionally reflect particular conceptualizations, which in turn can give evidence about agendas and world views.

3. The history of what has been said—and understood—thus far in the conversation. The perspectives in the current utterance can be inferred from the perspectives that speakers have already used in previous utterances. The perspectives that have been "successful"—those underlying the utterances that both parties agree have been understood—are particularly informative. For example, if in earlier successful descriptions the speaker has taken the addressee's spatial perspective, the addressee might infer that the current description is also likely to reflect the addressee's perspective.

4. Beliefs about the conversational partner's group membership, expertise, etc. Perspectives can be inferred from the groups people believe their conversational partners belong to—their ethnic backgrounds, social classes, genders, sexual orientations, nationalities, schools, churches, professions, neighborhoods, families, marital statuses, and so forth. People who belong to the same groups can assume some shared knowledge, beliefs, and assumptions (what H. H. Clark and Marshall [1981] call *common ground* based on community co-membership) that non-members can't. They can sometimes assume shared goals or values. If Monica knows or assumes that Felix belongs to some of the same groups that she does, she can assume commonality around topics relevant to those groups, although it may be unwise to assume commonality on other topics. If Monica knows that on some dimension Felix belongs to a different group than she does, she can design what she says and can interpret what Felix says accordingly.

5. Beliefs about the conversational partner's unique experience. Perspectives can be inferred from more than just group membership. If Vicki knows particular facts about Nick as a person or knows of particular experiences Nick has had, she can take Nick's perspective, designing what she says for Nick and interpreting what Nick says accordingly.

Judging other people's perspectives from beliefs about their group membership and personal history is a tricky business. Sometimes it is straightforward. Piano tuners can reasonably assume that fellow piano tuners know certain facts about the art of piano tuning. People who love Viennese cuisine can be assumed to know what Wienerschnitzel tastes like. But beliefs about others' group membership and personal history can lead to unwarranted perspective inferences, as when people mistakenly believe they know their conversational partners' world views because of the partners' ethnic background, social class, or gender. Stereotypic beliefs about group membership are only

relevant to some topics of discussion, and speakers can unwisely assume too much about their partners' knowledge.

Also, different kinds of perspective inferences may be warranted for different kinds of groups. Membership in some groups, but not all, is immediately apparent to other people. Some groups reflect pre-existing social categories, and some are ad hoc, forming on the fly during the course of a particular conversation (e.g., people with big feet who have trouble finding shoes that fit). Some groups are joined by choice and some are not. People can be deeply committed to some groups but not to others, and their commitments can waver. This is all complicated by the fact that people belong to many (sometimes incompatible) groups simultaneously (see H. H. Clark, 1996, for further discussion of group membership).

These different kinds of evidence all come into play as people take each other's knowledge, agendas, conceptualizations, and spatial perspectives into account. But they come into play differently because only the physical setting of the conversation and the words people use are immediately observable. The other kinds of evidence are less solid, because they rely on memories and inferences. How are the different kinds of evidence relevant for different kinds of perspective-taking?

Evidence in Spatial Perspective-Taking

In typical face-to-face conversations involving spatial descriptions, participants can immediately observe two concrete kinds of evidence of each other's perspectives: (a) the physical setting of the conversation, and (b) the words their partners use, words like *left* and *front*. The words themselves do not reflect unique perspectives: The term *left* could indicate the speaker's left, the addressee's left, an object's left, or the environment's left. Knowledge of the conventional meaning of *left* is of course necessary for inferring which spatial perspective the speaker has taken. But it is only when such knowledge is combined with knowledge of the physical setting of the conversation that an utterance of "left" can be seen to reflect one (or more than one) particular perspective.

The physical setting—the participants' viewpoints, the disparity in their viewpoints, and the arrangement of objects in the scene—is observable or directly inferable in at least three ways (Schober, 1995). First, it is *public*: Not only does each party know about the other's viewpoint and the arrangement of objects in the scene, but each knows that the other knows about them, and each knows that the other knows that the other knows, etc. This satisfies the technical requirements for truly mutual knowledge (see H. H. Clark & Carlson, 1981; H. H. Clark & Marshall, 1981; Schiffer, 1972). Second, it is *preset*: People's viewpoints and a scene with objects in it necessarily exist before a

spatial description can be uttered or interpreted. And third, it is *fixed* as long as participants or objects in the scene don't move. If they do move, the newly emerging spatial perspective options will be immediately calculable because of the public nature of the relevant knowledge. (As I will argue, the evidence for conceptualizations, agendas, and world views is not public, fixed, or preset in the same way as the evidence for spatial perspectives.)[3]

The other kinds of evidence—conversational history and beliefs about the other person's group membership and experience—are less immediately observable, but they can be useful in spatial perspective-taking. Speakers can infer the spatial perspective of an utterance from the history of which spatial perspectives have already been used successfully in the conversation. In successive descriptions of locations on identical or similar displays for the same partner, speakers are extremely consistent in the proportions of different spatial perspectives they use (Schober, 1993, 1995). For example, a speaker who has taken the addressee's perspective in earlier location descriptions is highly likely to continue in the same vein in the next description, provided the addressee has given evidence of understanding the earlier descriptions.

People may also sometimes infer spatial perspectives from their beliefs about the partner's group membership or unique experience. As Graf (cited in Herrmann & Grabowski, 1994) has shown, students are more likely to take a professor's spatial perspective than a fellow student's, presumably because they want to be polite or deferential, and they are more likely to take a child's perspective than another student's, presumably because they believe the child is more likely to have difficulty understanding speaker-centered descriptions. Speakers who have evidence that their partners have poor spatial abilities take their partners' perspectives more often (Schober, 1997). In any of these cases, addressees who know what the speaker thinks of them may be able to infer which perspective the speaker has used. But, of course, this kind of inference is tenuous in a way that inferences based on more tangible evidence are not.

Evidence in Taking Conceptualizations

Conceptualizations operate differently than spatial perspectives. Conceptualizations are not generally visible from the partner's physical location and orientation, nor from the details of the physical situation the interlocutors find themselves in. Instead, people come to know each other's

[3]This is an oversimplified view of the role of physical evidence. Additional kinds of physical evidence can be important for spatial perspective-taking, as when people point overtly, glance in particular directions, and present each other with other kinds of direct visual evidence of understanding locations (see Brennan, 1990). And sometimes direct physical evidence is much less important, as when people give route directions over the telephone or in other situations where they or the scene they are describing is not mutually visible (see Taylor & Tversky, 1992, 1996).

conceptualizations through the words themselves—both through the words and linguistic constructions that are used and through the words and linguistic constructions that could *potentially* be used. Unlike with spatial perspectives, speakers may not be certain about their partners' conceptualizations of the topic under discussion until some words have been uttered.

For example, consider how a speaker might refer to a particular object in conversation: as a shoe, a penny loafer, a piece of footwear, etc. Before any words have been used to refer to the object in a conversation, both speakers know a range of possible terms that could be used, but neither is likely to know which particular conceptualization his or her partner prefers, unless they have particular shared expertise or experience. But once one speaker has used "penny loafer," his or her conversational partner now has evidence for the speaker's current conceptualization. The same goes for other linguistic constructions. Before either speaker has described an event (for example, Don pushing Alison in a stroller), neither has solid evidence for the other's chosen conceptualization. But once one speaker has described the event (for example, by using the passive form to focus on Alison—"Alison was being pushed in her stroller"), the other now has reliable evidence of how that speaker has chosen to characterize the event.

In one sense, conceptualizations are public, preset, and fixed even before a word has been uttered, because people within a linguistic community know which conceptualizations particular words or phrases conventionally indicate.[4] But in another sense, before a conversation has begun conceptualizations may not be public, preset, or fixed, because speakers may not know which conventional conceptualizations their conversational partners are likely to choose. So the potential conceptualizations in a linguistic community are public, but individual choices of conceptualization within a conversation are often unknown before they are uttered—perhaps even by the speaker. (Of course, whatever is uttered only gives evidence for what the speaker is willing to make public; speakers have private conceptions that they never share.)

Both kinds of evidence—pre-existing knowledge of the available conceptualizations and knowledge of which conceptualizations have been used in the current conversation—play a role in speakers' word choices (see H. H. Clark 1991). As Garrod and Anderson (1987) have shown, speakers tend to choose words that conform to the words their partners have chosen. In fact, speakers sometimes persist in using a word that has already been used successfully (say, "penny loafer" to pick out a shoe from among several), even when they no longer need to use such a precise word (say, if circumstances have changed so that now the pennyloafer is the only shoe, so that they could get by with using

[4]Note that this doesn't mean that meanings within a linguistic community are completely determinate; people regularly use words in novel ways (see H. H. Clark, 1991; H. H. Clark & Gerrig, 1983).

the basic-level word *shoe*) (Brennan & H. H. Clark, 1996). In other words, the history of what both parties agree has been said and understood thus far in the conversation—the common ground with the conversational partner—strongly affects current conceptualizations.

But actual and potential choices of linguistic construction are not the only possible ways to infer conceptualizations. People's physical vantage points can provide evidence for their conceptualizations in situations that satisfy these two conditions: Both partners' physical experience of the same object is different enough that it affects how each conceives of the object, and at least one partner is aware of the difference and how it might affect the other's conceptualization. For example, imagine that you see a brand new car with a dented door, but your partner sees only the unblemished side of the car. Your physical vantage point and your knowledge of what your partner can see provide evidence that may be relevant to your description of the car. Referring to the car as "the wreck" is unlikely to prove successful, because your partner's potential conceptualizations rely on different perceptual evidence than you have.

What addressees know of speakers' group memberships and unique experience can also give evidence about the speakers' potential and actual conceptualizations. Speakers of different dialects—say, American and British English—sometimes know enough about each other's dialects to know how their partner's range of options for a particular reference differs from theirs. Note that this cross-dialect case is comparable, but not identical, to the case within a single dialect where speakers, by virtue of knowledge or expertise (say as a plumber), can tailor their speech for their partners who have a different level of expertise.

Evidence in Taking Agendas

The evidence for inferring conversational agendas is often less solid than the evidence available for spatial perspectives or conceptualizations. Although some situations rigidly determine conversational agendas (think of official interactions in courtrooms, Departments of Motor Vehicles, classrooms), the agendas in many casual conversations aren't public, preset, or fixed. People often aren't fully aware of each other's agendas. They don't necessarily have predetermined agendas before the conversation starts; in fact, they may still be unsure of their own agendas during the conversation. And agendas are often unstable; they can change without fanfare or conversational disruption.

So how do people infer each other's agendas? Consider the situation of being asked for the time by a stranger in a bar. Among other things, this request could be a friendly conversation opener, a romantic advance, or a sincere request for the time (and only the time). What information do you have at your disposal?

You have the physical setting and the words themselves, but neither gives much information about the stranger's agenda. You can use your previous experience with people of the stranger's type (those who belong to the groups that you assess the stranger belongs to) to impute an agenda, but you may be wrong. The safe thing to do is to put off determining an agenda until more is said and the stranger's motives become clearer in subsequent conversation.

This is a reasonable strategy, but people don't necessarily follow it. In some experimental conversations, people seem to impute agendas to their conversational partners from the very beginning of the conversation, even if they don't strictly need to yet (Russell & Schober, 1997). In the absence of clear information to the contrary, people can mistakenly assume that others share their own agendas.

Of course, additional knowledge about a conversational partner's previous agendas and proclivities helps increase the likelihood of inferring an agenda appropriately. But, again, such evidence of speakers' likely agendas is far less solid than the immediate physical evidence for spatial perspectives or the immediate verbal evidence for conceptualizations. This tenuousness is troubling because of how important agendas may be to language understanding: Some theorists have argued that people can only produce and comprehend language because they have constraining beliefs about the current agenda or goals of the ongoing "language game" (Wittgenstein, 1958), social "frame" (Bateson, 1952/1972), or "activity type" (Levinson, 1979, 1981) in which they are engaged (see also Grice, 1975).

Evidence in Taking Others' Knowledge Into Account

The words that speakers use provide some evidence of their expertise—consider opera buffs who use technical terms in conversation. But this evidence is not entirely reliable. Opera buff James might seem to know more than he does by using jargon he doesn't really understand, or he might use nontechnical words that don't reflect his full knowledge because he intends to make himself understandable to his less knowledgeable addressees.

This is not to say that conversational partners can't be confident about their partners' knowledge. The relevant pieces of someone's knowledge *can* be public, preset, or fixed within a conversational interaction, but only if interlocutors know the right sort of information about each other. For example, a lawyer who knows that my legal knowledge comes largely from popular media and high school civics courses can infer that my knowledge about legal intricacies is lacking. This can affect the vocabulary he or she uses with me (he or she is likely to assume that my range of potential conceptualizations is restricted) and how he or she interprets my imprecise descriptions of a lawsuit.

So although prior knowledge about a partner can provide evidence of the partner's knowledge, this evidence rests on memories of previous inferences, rather than on immediate tangible evidence.

The evidence for larger scale kinds of knowledge like world views is even more tenuous. Although speakers' utterances may suggest that they have particular world views, it is extremely difficult to pin an entire world view on a speaker on the basis of one utterance or one conversation. Stereotypic knowledge about people's group memberships and knowledge about their personal experiences can also be useful in inferring their world views. But, of course, knowing someone's group memberships and personal experiences is not enough to guarantee accurate knowledge of his or her world view.

Individual pieces of knowledge and larger scale knowledge structures can be mutually known to conversational partners. And both parties can know that one has a particular kind of knowledge or world view and the other doesn't. But this kind of knowledge about another's knowledge rests on a far less solid base than does knowledge about spatial perspectives or conceptualizations.

HOW LESS TANGIBLE EVIDENCE MUDDIES THE WATERS

I have proposed that speakers' utterances reflect several perspectives simultaneously, and that the interpretation of these perspectives depends on different kinds of evidence, some tangible and some tenuous. When perspectives rest on less tangible evidence, they are harder to characterize in other ways too—both for conversational participants and for researchers. In particular, it is harder to characterize what speakers' perspective options are, and it is harder to characterize the collaborative effort involved in an utterance.

Perspective Options

For spatial perspectives, the repertoire of perspective options is well-defined (despite researchers' quarrels about classification schemes and terminology). Speakers' expressions can either be speaker-centered, addressee-centered, object-centered, environment-centered, or neutral. Or they can be ambiguous, as when they reflect multiple perspectives simultaneously (e.g., "on the left," where the description is true from both the speaker's and the addressee's perspectives). In the prototypical face-to-face conversation involving locations, a conversational participant—and an observing researcher—can tell which perspective options are available to a speaker.

The spatial perspective options are so well-defined because of the tangible evidence the scene provides. In the prototypical situation, both participants can see each other and they can see the various objects in the scene. This means that

they necessarily know what the other's vantage point on the scene is, precisely what the disparity between their two vantage points is, if any, and what additional perspective options are afforded by the arrangement of the objects. For example, if the objects in a scene have their own intrinsic fronts and backs or lefts and rights, object-centered descriptions are afforded, but if the objects don't have such features—think of lamps and balls—object-centered descriptions aren't possible. Similarly, if the objects are arranged appropriately, neutral descriptions like "between the lamp and the ball" or "in the middle" are available.

The perspective options for conceptualizations are harder to characterize. Unlike spatial perspectives, which "belong" to particular people or objects, conceptualizations can only sometimes be attributed to one conversational partner and not the other. Consider when a militarist uses "peacekeeping device" to refer to a missile in a conversation with a pacifist. In this case, the conceptualization "peacekeeping device" reflects the militarist's views and can be said to "belong" to the militarist and not to the pacifist; the militarist has produced a speaker-centered utterance. Contrast this with a case where a shoe clerk uses "the loafer" to pick out a shoe for a new customer. Although this case is similar to the militarist–pacifist case, it seems odd to say that the clerk's utterance of "loafer" is speaker-centered. Unlike the pacifist, who thinks of missiles as death machines rather than as peacekeeping devices, the customer probably has no objection to conceiving of the shoe as a loafer and may have had that conception even before the clerk said anything.

What distinguishes the cases where conceptualizations can and can't be attributed to particular people? The crucial factor is evidence. Without evidence of their addressees' conceptualizations, speakers' options include the full range of conceptualizations that the language provides. The shoe clerk who has no evidence of how the customer is likely to conceive of a particular shoe can call it a "shoe," a "pennyloafer," a "brown shoe," a "piece of footwear," etc. When speakers have evidence that their partners hold or are likely to prefer particular conceptualizations (as in the militarist–pacifist case), then their perspective options are clearer—they can choose to take the other person's perspective or to introduce a different perspective.

The evidence that allows perspectives to be attributed to particular speakers (and thus limits speakers' conceptualization options) can be more or less solid:

(1) Tangible physical evidence, which is present even before a word is uttered, can clarify the perspective options in a few ways. One way is that it can provide evidence about what is mutually known and what isn't. Recall the earlier example where only one speaker can see the dent in the car; in such cases, a conceptualization like "the wreck" reflects the perspective of the speaker who can see the dent. Another way is that the nature of the physical scene itself—what potential alternative referents surround the target—can limit the options. Consider the shoe clerk again: If the shoe display contains only brown shoes,

"the brown shoe" is unlikely to be among the conceptualizations that could allow the customer to pick out the target shoe.

(2) Speakers' pre-existing beliefs about each other's world views, agendas, group membership, knowledge, etc. can also provide evidence that clarifies the perspective options, as in the militarist–pacifist example. As long as both know the relevant aspects of each other's world views, their conceptualizations can be attributed to one or the other. Of course, when speakers' beliefs about each other are wrong, the options are only well-defined from one person's point of view. If the militarist speaker mistakenly believes his or her militarist addressee is a pacifist, an attempt to take the partner's perspective by using "death machine" is an addressee-centered utterance only from the speaker's perspective. From the addressee's perspective, the conceptualization will probably be hard to classify.

(3) Conversational evidence—what has been said and understood successfully—can also clarify whose perspective is being used. For example, if the customer has already successfully used "loafer" to refer to the shoe, the clerk's current range of perspective options in referring to the same shoe has shifted. Now one particular perspective is marked as the one the customer proposed, and because the clerk understood the customer, this perspective is also marked as successful. The clerk's perspective options now include taking the perspective that the partner proposed or proposing a different perspective (say, "shoe"). Although it is common for speakers to use the terms that their partners have already proposed (Garrod & Anderson, 1987), sometimes people don't converge on the same terms, each using their own over the course of a conversation (see Brennan & H. H. Clark 1996).

So particular conceptualizations can become associated with particular people; as with spatial perspectives, the conceptualization options can include speaker-centered and addressee-centered conceptualizations (or, if both speaker and addressee subscribe to the same views, conceptualizations that are ambiguous—speaker-or-addressee-centered, that is, joint). To extend the analogy from the spatial case, are there neutral conceptualizations that don't reflect either person's point of view? In some cases, yes: The militarist and the pacifist can try to use less value-laden terms than "peacekeeping device" or "death machine"—for instance, "weapon." But whether more neutral conceptualizations that avoid taking either person's perspective are *always* available in conversation is an open question.

As for agendas and knowledge, which often rely on more tenuous evidence than conceptualizations, the perspective options are often even less well-defined. Only when agendas and knowledge are extremely explicit can utterances be attributed to one or the other person's agenda or world view. Tangible physical evidence and conversational evidence can limit speakers' beliefs about their partners' agendas and knowledge. But this is quite different from what happens in the spatial case, where the physical scene itself provides a clearcut set of

perspective options. With agendas and knowledge, speakers' choices are much less clear. It is harder for them to know if they have stumbled upon mutually acceptable perspectives, or if they have blundered into deep misunderstandings because of mismatches in their agendas or world views.

Collaborative Effort

Another aspect of perspective-taking which is harder to characterize when evidence is less tangible is *collaborative effort*. This notion comes from H. H. Clark & Wilkes-Gibbs' (1986) seminal paper on conversational referring, which proposed that speakers do not merely minimize their own effort by using the shortest, simplest noun phrases that are sufficiently unambiguous for their addressees. Rather, speakers try to minimize collaborative effort—the effort that both parties ultimately will have undertaken by the time both parties have agreed the reference has been understood. This collaborative effort includes the individual mental effort involved in the speaker's production, the individual mental effort involved in the addressee's comprehension, and the collective effort (the number of words and conversational turns) involved for both parties to agree that the reference has been understood.

So, for example, speakers might use longer noun phrases to describe objects than many standard theories predict, because they believe that by putting in extra individual effort early on they will not have to refashion the description later so the addressee can get it. Alternatively, speakers might put in less individual effort at first, trading off such that the addressee or the pair must do more work later on. Speakers might do this for several reasons: First, they might not be able to design the ideal noun phrase in the time allowed. Second, the information they need to convey might be so complex that it can't easily be understood all at once. Third, speakers might not know enough about what their addressees are likely to accept for them to present the reference right the first time. H. H. Clark & Wilkes-Gibbs claim that the push to minimize collaborative effort leads to particular conversational moves, like presenting a noun phrase in installments or allowing addressees to refashion unsuccessful descriptions (H. H. Clark & Wilkes-Gibbs, 1986).

When the perspective-taking evidence is straightforward, as with spatial perspectives, complex judgments of individual and collective effort are feasible, and one can imagine how speakers might go about making them. Speakers have to judge: (a) how hard it will be to produce a spatial description from each available perspective; (b) how hard it will be for the addressee to comprehend a spatial description from each available perspective; (c) whose effort—their own or their addressee's—needs more minimizing; and (d) what the conversational consequences of using a particular perspective will be—that is, which perspectives will ultimately lead to efficient comprehension.

In prototypical situations involving spatial descriptions, such computations are feasible because the evidence is so tangible and because the amount of effort involved in an individual act of comprehension or production is determinable. Speakers find it easier to produce egocentric descriptions and harder to produce addressee-centered descriptions, especially when the speaker's and addressee's viewpoints are further offset (Bürkle, Nirmaier, & Herrmann, 1986). The same is true for comprehension: Addressees find addressee-centered descriptions easier to understand and speaker-centered descriptions harder to understand. So speaker- and addressee-centered descriptions lead to an imbalance: They make things easier for one party, but harder for the other.

Other spatial perspective options don't seem to create the same kind of imbalance. Object-centered descriptions seem to be of intermediate difficulty, somewhere between speaker- and addressee-centered (Miller & Johnson-Laird, 1976; Schober, 1996; Schober & Bloom, 1995). Neutral descriptions are easy to produce and comprehend, because they don't require either party to choose between two points of view (Schober, 1995). In fact, in one study (Schober, 1995), both parties in conversations about locations preferred neutral descriptions when their vantage points were offset, and they used more and more neutral descriptions over time; in some cases, 75% of speakers' location descriptions were neutral by the end of the conversation. This finding is consistent with the proposal that neutral descriptions resolve the imbalance and minimize effort for both parties.

So particular spatial perspectives are easier or harder for speakers to produce and for addressees to comprehend, and the amount of effort involved is measurable (see Carlson-Radvansky & Irwin, 1994, for another example of such a measurement: A spatial description like *above* is more quickly understood when it reflects more than one spatial perspective). Speakers can observe addressees' vantage points and compute which perspectives are likely to cause the addressee to put in more effort. These assessments can be refined by knowledge of their particular addressees' spatial abilities and conversational preferences. But my point is that each individual's mental effort and the pair's collective effort can be defined, and so speakers' judgments about least collaborative effort—as well as researchers' claims about least collaborative effort—can rest on solid footing, at least in principle.

Such definitions are much harder to ascertain for conceptualizations, even though it is in the domain of conceptualizations that the principle of least collaborative effort was proposed (H. H. Clark and Wilkes-Gibbs [1986] were examining conceptualizations underlying references to objects). The amount of collective effort that a pair undergoes in order to agree that a reference has been understood can be observed—when the pair takes longer and uses more words

and turns to understand each other, they have put in greater effort. But the *individual* effort involved in the production and comprehension of particular words is only sometimes calculable—only in those situations where evidence is tangible or solid. Speakers and addressees can only be said to be following a principle of least collaborative effort if they have a metric by which to judge how easy or hard particular conceptualizations are to produce and comprehend. Such a metric may be available to speakers and addressees when evidence is tangible and conceptualizations can be attributed to one or the other party. For example, the shoe clerk who uses the customer's term *loafer* may have judged that taking the customer's perspective by using the customer's preferred term would be collaboratively efficient, perhaps more efficient than a term that the clerk might prefer. But when the evidence is less solid, computations of potential collaborative effort are on much shakier ground and may even be impossible.

How is collaborative effort determined for agendas and knowledge? Collaborative effort is relatively straightforward in situations where two people's knowledge (expertise) on a well-defined topic differs and both know it (see Isaacs & Clark, 1987). Even though it would be easiest for a New Yorker to refer to a particular building as the Chrysler Building, the New Yorker in conversation with a non-New Yorker knows that the non-New Yorker probably won't understand the reference. The New Yorker can minimize collaborative effort by avoiding words that reflect knowledge that only a New Yorker could have. But collaborative effort is difficult to determine for less clearcut cases, as when both parties do not know each other's relative expertise.

I have not mentioned conversational agendas and world views in discussing the principle of least collaborative effort. This is because they are not negotiated conversationally in the same way that spatial perspectives and conceptualizations are. I don't mean to imply that agendas and world views are not affected by collaborative processes in conversation, nor that misunderstandings don't sometimes result from lack of knowledge about agendas and world views. But agendas and world views are not "on the table" in the same way that spatial perspectives and conceptualizations are. That is, every spatial perspective or conceptualization is an explicit proposal that the addressee can accept or reject. In contrast, agendas are rarely proposed explicitly, and although they can be implicitly renegotiated in ongoing conversation, they must occasionally be stable if they are to affect what speakers say and addressees understand (Bratman, 1990; Russell & Schober, 1997). World views are even less likely to be negotiable in ongoing conversation. Thus computations of least collaborative effort come into play for spatial perspectives and conceptualizations in ways that they don't for agendas and world views.

COMPLICATIONS

Even when the evidence for inferring perspectives is tangible and solid, perspective-taking is more complicated than I have made it out to be. Here are three kinds of complications.

(1) Roles

Conversational participants play several roles simultaneously. In the most stable role, people maintain their identity as a person—*A* remains *A* throughout the course of a conversation. In a role that shifts often, *A* is sometimes a speaker and sometimes an addressee. In a role that shifts, but less often, *A* is sometimes a person who has something to say—a purveyor of information—and sometimes a person to whom something is being said. Note that *A* can shift between being speaker and addressee several times while maintaining the task role of information purveyor.

The complication this raises for conversational perspective-taking is that people could take another person's perspective for any of these roles. I have been classifying perspectives as speaker- and addressee-centered. But they could just as well be person-*A*-centered and person-*B*-centered, or information-purveyor-centered and information-gatherer-centered.

Most analyses of perspective-taking have not made this distinction, partly because the different roles aren't always easy to disentangle. I was able to disentangle them in one of my spatial perspective-taking studies (Schober, 1995). In the experiment, one person, the director, had a set of locations to describe for the other person, the matcher. After two rounds of conversation, the director and matcher switched task-level roles. Because they also alternated between being speaker and addressee often during the course of the conversations, I could determine for which role they were taking spatial perspectives. In this experiment they consistently took the perspective of the person who needed information, even as informational roles switched.

Less is known about the roles for which people take each other's conceptualizations. Often the first conceptualization that a speaker proposes persists in subsequent references by both parties, no matter who has the information-purveying role (Garrod & Anderson, 1987). But what really persists is the first conceptualization that both parties have agreed upon, even if that conceptualization was initially proposed by the person who needed information (Brennan & H. H. Clark, 1996; H. H. Clark & Wilkes-Gibbs, 1986; Schober & H. H. Clark, 1989). Even less is known about the roles for which people take each other's agendas or world views. Further disentangling needs to be done to clarify how roles and perspectives interact.

(2) Extra Levels of Perspective-Taking

I have argued that it is only sometimes possible to classify an utterance as speaker- or addressee-centered; it depends on how tangible and solid the evidence for the attribution is. But even in the most tangible cases, there seems to be an additional level at which researchers should consider utterances as speaker- or addressee-centered. Take a straightforward face-to-face encounter where a speaker's expression "on the left" definitely reflects his or her own frame of reference. From everything I have considered so far, the utterance should be classified as speaker-centered. But at another level, this might be wrong.

Imagine that the speaker isn't very good at imagining how things look from other points of view. Imagine further that the addressee is quite good at it, and each knows the other's propensities. After having weighed the options, the speaker might use the speaker-centered "on the left" because he or she judges this term to be most collaboratively efficient: The addressee probably will have less trouble comprehending the speaker-centered description than the speaker would have producing an addressee-centered description. The speaker has considered his or her own needs, the addressee's needs, and the pair's joint needs. Hasn't the speaker taken the addressee into account? Surely this speaker-centered utterance differs from one by a speaker who fails to consider his or her addressee's point of view at all—say, one of Piaget's egocentric children.

This less egocentric use of speaker-centered expressions is exactly what I observed in one of my studies of spatial perspective-taking (Schober, 1993). Speakers used speaker-centered descriptions more often when their addressees gave them license to, that is, when their addressees gave no evidence of any discomfort with understanding speaker-centered utterances. When their addressee couldn't give such evidence (e.g., the addressee was imaginary) or the addressee failed to understand speaker-centered descriptions, speakers used addressee-centered descriptions. Merely categorizing speakers' descriptions as speaker-centered doesn't show just how much they took their addressees into account.

The same goes for conceptualizations. If the militarist uses "peacekeeping device" with full knowledge that the pacifist will understand (though disagree heartily with the conceptualization), the speaker-centered utterance is less egocentric than if the militarist had not considered the pacifist at all. The point is that there is a level of perspective-taking that has to do with the degree to which a speaker has considered the partner's needs, and the categories I have laid out don't include this.

(3) What Does It Mean To *Take* A Perspective?

Taking another perspective isn't the same thing as giving up one's own, nor is it the same thing as agreeing with the accuracy or validity of that perspective.

One can understand what bigoted, ironic, or kind remarks mean without agreeing with the bigoted, ironic, or kind perspective underlying them. The trouble is that giving evidence that one has understood what someone says *does* suggest at least some agreement with his or her perspectives—at least sufficient willingness to consider matters from that point of view for the moment.

For example, if the shoe clerk uses "loafer," and the customer gives evidence of having understood what the shoe clerk said, the customer is showing that he or she has no objection, and the clerk has license to continue conceptualizing the item as a loafer. If Pat uses the speaker-centered "on my left" and Chris gives evidence of having understood what Pat said, Pat has license to continue speaking egocentrically. In a sense, every time speakers describe or refer to something, they are making invitations that their addressees can accept or reject (Graumann, 1989). If the addressees accept the offer, they not only imply that they can figure out what object the speakers intend to pick out, but also that they are willing to agree, for now, with the speakers' perspectives on it. Giving evidence of understanding does imply a kind of tacit approval of a speaker's perspective.

In many cases an addressee will have nothing to lose by accepting a speaker's description. But sometimes an addressee does *not* want to endorse the speaker's view, for example, when the speaker refers to the addressee's beloved pet as "that beast," or when the prosecutor has called the addressee's witness a murderer. More subtle versions of this phenomenon occur when speakers presuppose perspectives that addressees are unwilling to accept, but that aren't the focus of conversation. The addressees are given an unpleasant choice. They can either ignore the presupposition and pretend that it didn't happen, but this choice can license speakers to believe that addressees find the presupposition acceptable. Or they can disrupt the conversational flow and direct attention to the irksome perspective, risking the loss of the speaker's good will.

CONCLUSIONS

In examining spatial perspectives, conceptualizations, agendas, and knowledge, I have only looked at some of the perspectives that exist simultaneously in conversations. These different kinds of perspectives can operate quite independently. For example, the conceptualizations inherent in spatial descriptions (e.g., the difference between "on the left" and "toward the left") can have nothing to do with the spatial perspectives they reflect. When speaker Linda chooses whether to take her own perspective (her left) or her partner Don's (his right), it is unlikely that her choice is affected by whether she conceives of the locations as static (*on* the left or right) or pathlike (*toward* the left or right).

Not only can the different kinds of perspectives operate independently, but different mental processes seem to be involved in their use. For example, mental

rotation processes (or something very much like them) come into play in spatial perspective-taking (see Bürkle et al., 1986; Herrmann & Grabowski, 1994), but mental rotation probably doesn't come into play much in the determination of conversational agendas or world views.

But the different kinds of perspectives *can* be related. Speakers' conceptualization choices can affect the spatial perspectives they use. For example, a speaker who conceptualizes a scene as corresponding to a clock face has different spatial perspectives available as options than does a speaker who conceives of a scene as a grid. With a clock face, a speaker has the option not only of using speaker-centered descriptions like "at 10 o'clock for me" but also of using neutral perspectives with expressions like "clockwise" and "counterclockwise." With a grid, a speaker has fewer neutral perspective options, but he or she has other person-centered options such as corners and quadrants. Speakers' conversational agendas can also affect their conceptualizations. To reuse an earlier example, speakers describe exactly the same layout using different conceptualizations (linearizations) when their purpose is to describe a location rather than give directions (Plumert et al., 1995). For other examples of how speakers' agendas affect the words they choose, see Ravn (1987).

Under what conditions the different perspectives affect one another remains unknown. In fact, many things about perspective-taking remain unknown. *Must* at least one party take the other's perspective? Or can both parties get along having what Piaget (1959) called "collective monologue"? What would this "getting along" mean? If a speaker happens to hit upon his or her addressee's favorite perspective, but never considered the addressee at all, should the speaker's mental processes be characterized as perspective-taking? The list of questions stretches on.

But I am convinced of two things. First, I believe that the evidence that conversational participants have for inferring each other's perspectives is an important part of the answer to many research questions about perspective-taking. Conceptualizations should operate like spatial perspectives, for example, to the extent that the evidence they rest on is the same kind of evidence. Second, perspective-taking can and should be studied empirically. The challenge is to provide convincing empirical demonstrations in situations where the evidence for inferring perspectives—both for conversational participants and for researchers—is less tangible than in concrete spatial cases.

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