

INDEXICALITY AND DEIXIS*

1. INTRODUCTION

Words like *you*, *here*, and *tomorrow* are different from other expressions in two ways. First, and by definition, they have different kinds of meanings, which are context-dependent in ways that the meanings of names and descriptions are not. Second, their meanings play a different kind of role in the interpretations of the utterances that contain them. For example, the meaning of *you* can be paraphrased by a description like “the addressee of the utterance.” But an utterance of (1) doesn’t say the same thing as an utterance of (2):

- (1) Oh, it’s you.
 (2) ?Oh, it’s the addressee of this utterance.

One can be surprised to learn that one’s addressee is who he is, but not that one’s addressee is one’s addressee.

The immediate problem raised by an utterance like (1) is to describe its interpretation and to show how it arises from the interaction of the meaning of *you* and the context. A lot has been said about this, particularly by philosophers, since the analysis of expressions like *you* seems to bear on important philosophical questions. As a result, it can sometimes be a tricky matter to evaluate these accounts. Reading what writers have to say about *I*, for example, it isn’t always easy to say where the doctrine of a word leaves off and theses about belief or personal identity take over. At the same time, most of these accounts rest on a common body of empirical assumptions, and this is how I will be considering them here. Taken from a narrowly linguistic point of view, these assumptions are incomplete, and fail to account for many ordinary uses of these words. In the first part of this paper, I will discuss some of these limitations, and I will go on to offer a more general account, based on a wider range of data, of which the standard story turns out to be only a special case.

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But the problems raised by examples like (1) and (2) aren't exhausted when we have accounted for the interpretive differences between the utterances, say by associating the word *you* with a special kind of semantic rule. We also want to understand how the interpretive properties of these words are tied to the particular kinds of meanings they have: why should the meaning of *you* play a different role in interpretation from the meaning of the description *the addressee*? The standard assumption is that the interpretive peculiarities of these words follow directly from their status as an indexical expressions. But the connection is unexplained, and in fact the category of indexicals itself is more problematic than many people suppose. Indexicals are generally defined as expressions whose interpretation requires the identification of some element of the utterance context, as stipulated by their lexical meanings.¹ As David Kaplan puts it: "What is common to [indexicals] is that the referent is dependent on the context of use and that the meaning of the word provides a rule which determines the referent in terms of certain aspects of the context" (1989, p 490).² On this view, then, both indexicality and the interpretive process associated with it are features of particular lexical items. (For example, Recanati (1988) proposes that the entries for indexical expressions should include a feature REF, which "indicates that the satisfaction-condition of the utterance where it occurs is singular.")

But a language like English has only a relatively small number of "dedicated" indexical terms – words like *I*, *tomorrow*, and the like.³ Most of the time, indexical reference is achieved using expressions that have

¹ Linguists sometimes use the word *deictic* in more-or-less the same way that philosophers use *indexical*. But for many people *deixis* has more of the flavor of an action nominal, and I will be taking advantage of this distinction later on when I use the term *deixis* in another, more specialized sense.

² Indexicals are sometimes defined simply as expressions that change their reference from one context to the next – indeed, this definition is implicit in the label "shifter" (cf. French *embrayeur*), which is widely used in many traditions. But an expression can be context-dependent without having its interpretation change from one utterance to the next, provided the context doesn't change with respect to the relevant feature. An extreme example, brought to my attention by Bill Poser, is the Japanese word *chin*, a now disused form of the first-person pronoun that could be used only by the Emperor. If you were set on defining indexicals as expressions that change their reference according to the context, you might have to wait eighty years or more to find out whether *chin* was an indexical or not (of course you would probably observe before then that nobody else referred to the Emperor as *chin*, but on this definition that fact would have no bearing on the status of the word).

³ The paradigmatic case of a dedicated indexical is the first-person singular pronoun, which in most languages can be controlled only by the utterance context. Of course even dedicated indexicals may have nonindexical uses. For example the words *tomorrow* and *me* are used nonindexically in phrases like "a brighter tomorrow" or in the title of a course offered at a Bay Area extension school, 'The Struggle to be Me', which allows a reading under which

nonindexical uses as well. Pronouns are the paradigm case. The word *he* can be used demonstratively, anaphorically, or as a bound variable, and while some writers have suggested that these uses should be treated as instances of homonymy, most recent research has assumed that it is possible to unify these uses.⁴ And the homonymy thesis is even less attractive when we note that the same pattern of use is associated with a large number of open-class items, such as *enemy*, *ahead*, and *local*, which behave as if they contained implicit pronoun-like variables (see, e.g., Mitchell (1986) and Partee (1989)). Thus in (3) the word *local* can have any of three interpretations, depending on whether it is controlled by the subject, the quantifier, or the context of utterance:

- (3) The *Times* had every reporter cover a local athlete.

Inasmuch as standard treatments offer no explanation of why a word like *you* should be associated with a special interpretive property, they make no prediction as to whether this property should also be found with the indexical uses of items like *local* – the matter is empirically wide open. Is this a property associated with certain words, or with indexical use in general? Or – what I’ll be arguing here – does it follow from some independent property that cross-cuts this distinction? Whatever the answer, the result will be a more complicated picture of indexicality itself, and of the notion of the “context” that it presupposes. But before we can turn to these questions, we will want to have a clearer picture of how interpretation works with some prototypical expressions.

1.1. *The Standard Picture*

I’ll describe the standard empirical assumptions about indexical reference as they have been cast in the “direct-reference” theories developed by Kaplan, Perry, and others.⁵ This approach has the advantage of being widely known, and of having been explored in a fairly thorough way. But most of assumptions I am interested in are presupposed *mutatis mutandis*

the curriculum doesn’t change according to the instructor. But these latter uses can safely be regarded as metaphorical.

⁴ More accurately, philosophers have tended to waffle on the matter. For example, Kaplan (1989, p. 489) says of the two uses of *he*: “These words have uses different from those in which I am interested (or perhaps, depending on how you individuate words, we should say that they have homonyms in which I am not interested).” Elsewhere in the same article, however, he makes passing reference to “the fact that demonstrative and anaphoric pronouns are homonyms . . .” (p. 589).

⁵ See, for example, Kaplan (1989), Perry (1977, 1979, 1987), Perry and Barwise (1983), Recanati (1988, forthcoming), and Wettstein (1981).

in other theoretical frameworks, and I should make it clear that while I am sympathetic to the spirit of direct-reference accounts, I am not interested in defending the purely philosophical aspects of that story – claims about the nature of propositions, for example, or about the objects of the attitudes.⁶

Direct-reference theories really involve several claims about indexical reference, though these are not generally made distinct. The first we have already noted in connection with examples (1) and (2): the linguistic meaning of an indexical doesn't figure as part of what is said by the utterance containing it. That is, the truth-conditions of an utterance containing *you* are not preserved if we substitute a phrase like "the addressee of the utterance," and so forth. I will put this claim here by saying that indexicals are held to be indicative, rather than descriptive.⁷ The general idea is that on any occasion of use, the linguistic meaning of an indexical expression takes us to a certain element of the context, and then drops out of the picture. (I like the way Cornulier (1978) puts this: "One can't say that *I* means 'speaker of . . . ' in the way that man means 'ape that . . . ' ; rather the definition of *I* admits of an indication like 'has as its reference a (the) speaker of . . . '"). In what follows, I will use the term *index* to refer to the contextual element picked out by the linguistic meaning of an indexical expression like *you*, as well as for the thing picked out by a demonstration associated with the use of a word like *that*. This is not the way the word has been used in recent work in semantics, but the usage is unlikely to engender confusion, and in fact I will argue later that it is consistent with the notion of an index as it was originally introduced by Peirce.⁸

The second claim of direct-reference theories is that indexical utterances

⁶ By the same token, I don't think any of the genuinely philosophical claims of the direct-reference story be compromised by the amended linguistic account I will be developing here. A theory of personal identity that depends crucially on a certain analysis of the English pronoun *I* was probably not much of a thesis of personal identity in the first place.

⁷ Of course the meanings of indexicals figure as part of what Perry (1987) has described as the "cognitive significance" of indexical utterances, which determines the information they convey and how we react to them. On the direct-reference view, my utterance of *You are about to be splashed* and your utterance of *I am about to be splashed*, as produced in the same context, have the same content. (Or depending on how "content" is construed, they are characterizations of the same content.) But obviously there is a difference between grasping the content under one or another mode of presentation of the subject.

⁸ Some philosophers might also have qualms about the use of the word "meaning" to describe the content of the linguistic rule associated with an indexical, since it does not qualify as a meaning in the Fregean sense; i.e., a function to an extension. Various alternative names have been proposed: "pragmatic function," "character," "role," a "referential qualifier," and so forth. But I will follow standard linguistic practice in using "meaning" to

express singular, rather than general, propositions, which contain individuals as constituents. Or as I will sometimes put it here: indexicals contribute individuals, rather than properties, to the interpretation. To be sure, many people are uncomfortable with the idea that a proposition can “contain” an individual, and is not easy to frame this claim in such a way as to avoid extraneous metaphysical commitments. At a first pass, we might say that a singular proposition is one whose identity conditions vary as the identity conditions on the individuals that correspond to its constituents. To say that an utterance of *Oh, it's you* expresses a singular proposition, then, is to say that it would express a different proposition if this token of *you* picked out a different person.⁹ But even this formulation can raise questions once we leave the world of particulars, where what counts as an “individual” can vary according to how the model is set up. (This will be a problem, for example, when we come to talk about indexicals that refer to groups or kinds.) In the end, though, the important thing is to be able to anchor the claim in empirical distinctions: it amounts to saying that indexicals don't have the same range of interpretations that are available for descriptions. So it is well known that the description in a sentence like (4) can have two interpretations. On one, the referential reading, it contributes an individual (e.g., George Bush); on the other, the attributive reading, it contributes the property of being the President:

(4) The President of the United States could have been short.

Whereas the subject of (5) is assumed to allow only one type of reading, where it contributes an individual:

(5) I could have been a contender.

There are various ways of representing this distinction, of course, but so long as they preserve a discrepancy between the kinds of interpretations available for indexicals and descriptions, they all involve the same basic claim.

Strictly speaking, the thesis that indexicals are indicative is independent of the claim that indexical utterances express singular propositions. The fact that an occurrence of an expression doesn't contribute the property provided by its linguistic meaning doesn't mean that doesn't some other property, after all. But the second claim is generally held to follow from

describe the significance that an expression bears in virtue of the linguistic rules that govern its use.

⁹ In this formulation the claim should be consistent with the views of neo-Fregeans like Evans (1990) and Searle (1983). Thus Searle (1983, p. 222) says: “In any utterance *I* refers to the person who utters it.”

the first, in virtue of another, ancillary assumption. This is what we can think of as the assumption of index-referent identity: the referents of indexicals are always the very things that are picked out by their linguistic meanings, or by their meanings taken together with the demonstrations that accompany their use. And inasmuch as these contextual features are invariably particulars, this amounts to saying that indexical utterances can only express singular propositions. Unlike the other two claims embodied in direct-reference theories, this one hasn't been examined or defended at any length; people have just taken it for granted. And it seems to make sense, at least with regard to the expressions that people have tended to concentrate on, like *I* and *that*. After all, if the interpretation of an occurrence of *I* isn't "the speaker," what could it be but the speaker?

One important consequence of this assumption is that it has permitted writers to adopt a more strictly semantic approach to the phenomena, by limiting the role that intentions play in determining the reference of expressions. Granted, intentions can't be ignored when it comes to determining who is the "addressee," or what counts as the demonstratum associated with a particular occurrence of *that*. But so long as the referent of an indexical is constrained to satisfy the property supplied by the linguistic meaning of the expression – of being the speaker, addressee, time of utterance, or whatever – it has seemed to many people that the role of intentional factors can be circumscribed in a fairly rigorous way, and that with some expressions, which Kaplan (1989) describes as "pure" indexicals, they can be eliminated from the story.

There are some important basic insights in this story. But also it has some descriptive and theoretical limitations, partly because it has been nourished on too thin a diet of examples, generally involving a few paradigmatic uses of the words *I*, *that*, and (thanks to Frege) *today*. This focus has inadvertently led people to slight two considerations that considerably complicate the picture of how indexicality in general works. In the first place, people have had little to say about the semantic complexity of indexicals. There are few or no indexical expressions that provide nothing more than an indication of the relation that the index bears to the utterance. Indexicals contain additional information about the referent of the expression – its animacy, number, gender and so forth – and it is not clear how this information is supposed to be integrated in the process of interpretation. Second, standard accounts have largely slighted those cases where the referent and index of an expression are distinct, in the processes that have been described as "deferred ostension," "deferred reference," and the like. The phenomena haven't been wholly ignored, but it is generally assumed that they are marginal or derivative, and that we can

frame a plausible account of indexicality that does not take them into consideration. In the following section, I'll try to show that these two limitations are closely connected. Once we widen the descriptive brief of a theory of indexicals to include a larger class of expressions, and look seriously at their semantic composition, the assumption of the identity of index and referent becomes impossible to defend in coherent theoretical terms. And because this assumption plays a central role in connecting the two explicit claims that standard theories make about indexicals, the result is a very different picture of what makes these expressions semantically exceptional.¹⁰ What I want to argue here is that while indexicals are indicative, they are not not limited in the kinds of interpretations they can express. That is, the rules that determine how indexicals are used don't determine what you can say with them, but how you can say it.

2. THE INTERPRETATIONS OF INDEXICALS: THE CASE OF WE

To see how these issues are connected, I want to consider the somewhat-neglected case of the first-person plural. To be sure, that label could be a little misleading, since it might lead a literal-minded interpreter to infer that the form *we* can only be used to refer to a group of speakers or writers.¹¹ It is true that *we* is sometimes used in this way, for example in co-authored articles or choral singing. But the agents of utterances are usually individuals, and in the most common use of the pronoun, the meaning of *we* can be described informally as "the group of people instantiated by the speaker or speakers of the utterance."¹²

¹⁰ There are a other complications for the direct-reference picture in observations about the use of indexicals fictional and imaginary discourse, or in communicative genres like novels, handbills or phone machine messages. All of these raise interesting questions, but I don't believe that they compromise the content of the thesis as such. For a discussion of some of these matters, see Smith (1989).

¹¹ Benveniste (1966) went so far as to avoid using the term "plural" to define *we*, defining it instead as denoting the "junction of *I* and the non-*I* As Cornulier (1978) observes, this diffidence seems misplaced. It is not in doubt that *we* is a plural; what is less certain is that it is the plural of *I*.

¹² "Speaker" and "utterance" are more-or-less arbitrary choices here. The first-person element that figures in the meaning of words like *we* has been described in the literature as the "speaker," "writer," "sender," and "agent"; the relevant linguistic type has been described as the "utterance," "use," "occurrence," "token," or "context." I believe there are important issues at stake in these choices, but they don't bear on my immediate interests.

I am ignoring here the royal (or "majestic") and editorial uses of *we*, where the pronoun refers to a single speaker or writer, and what we can call the "nutritial" (or as Zwicky (1977) calls it, the "phony inclusive") use of *we*, as in "How are we feeling today?," where the pronoun appears to refer to the addressee. These uses are best thought of as involving distinct linguistic conventions (Zwicky describes these as "displaced" uses). So too are the

Now this is a curious meaning for a plural noun phrase to have. We would be surprised, to put it mildly, if we ran across a hitherto undescribed dialect of English that had a plural form *doggen* that meant “a group of animals that includes a dog,” as in “Doggen are most tranquil when they are not also catten.” What distinguishes *we* from descriptions is not just that it picks out an element of the context of utterance, but that its reference is identified in virtue of the relation it bears to that element. In the normal case, that is, *we* involves deferred reference, and in principle a two-stage process of interpretation: we go from an occurrence of the word to an index, and from the index to the interpretation.¹³ Later on, I will be arguing that this is the interpretive property that sets off this entire class of expressions, not excluding *I* and *that*, but for the moment it will be easiest to develop this point in terms of *we*, where it is uncontroversial.

Let’s begin with the meaning of *we*, and then ask how it figures in interpretation. As the paraphrase “the group of people including the speaker” suggests, the meaning of *we* has three components. The first is the “first-person” component, which picks out the speaker or speakers of one of its occurrences. I will call this the *deictic component* of the expression, a function from occurrences or utterances of an expression to elements of the context of utterance. With respect to its deictic component, *we* is semantically identical to *I*. As spoken by a particular person in a particular discourse situation, that is, *we* and *I* generally pick out the same index.¹⁴ Analogously, we would assign the same deictic component to the forms *now*, *nowadays*, *ago*, and so forth, or to French *tu* and *vous*.

The second component of the meaning of *we* consists of the features of plurality and animacy.¹⁵ Features like these I will call the *classificatory component* of the expression. In general, the classificatory component of an expression is associated with its interpretation, rather than with its index. In addition to features like number and animacy, the classificatory component may include inflectional features like grammatical and natural gender and the content of the descriptors in phrases like *that car*, *we*

uses of the second-person plural in other languages as a polite form for addressing a single addressee.

¹³ I say “in principle” because it clear that not all actual interpretation proceeds in this way. Say I know the Giants were playing the Dodgers today, and later I hear an unidentified baseball player on the radio saying “We were handling the Dodger relievers pretty well this afternoon.” Then I can infer that the speaker is a Giant without knowing who he is.

¹⁴ I will have nothing to say here about the difference between exclusive and inclusive *we*, which is formally signalled in many languages.

¹⁵ One cannot ordinarily use the pronoun *we* to refer to oneself and one’s car or to oneself and one’s house (as in *We were undamaged by the quake*), unless the intent is to personify the other object.

linguists, and so forth. With other kinds of expressions, the classificatory component includes such things as the quasi-aspectual features that distinguish *here* from *hereabouts* and *now* from *nowadays* and *today*.

Finally, there is what we can think of as the *relational component* of the indexical, which constrains the correspondence that has to hold between the index and the interpretation. With *we*, the relational component stipulates that the index must be included in, or more generally, must instantiate the interpretation. So if a teacher asks a child what happened to the parental permission form for the class trip, the child cannot respond by saying “We haven’t signed the form yet.” Note that this restriction does not apply to the indexical uses of third-person pronouns, which have no explicit relational component: in the very same context, the teacher could point at the child and say to a colleague “They haven’t signed the permission form.” The explanation for this contrast cannot be purely pragmatic, since the contextual assumptions that license one usage should as easily license the other. With other kinds of expressions, the relational content may be signalled morphologically; for example in the not-particularly-productive forms *yester-* (as in *yesterday*, *-night*, *-year*), and *-ence* and *-ither* (“from” and “to,” when combined with the prefixes *h-*, *th-*, and *wh-*). But of course it is not necessary that each type of content shall have a discrete morphemic realization; semantically, *tomorrow* is no less complex than *yesterday*.¹⁶

2.1. *Indicativeness of We*

Let’s turn now to the role that the meaning plays in the interpretation of *we*. Standard accounts predict that *we* is indicative; that is, that its meaning is not part of the utterance content. And this turns out to be the case, though the content of the claim complicated by the fact that the interpretation of the pronoun is ordinarily a two-stage process in which the hearer has to first resolve the deictic component to determine the index, then resolve the relational component to determine the interpretation. So the process of interpretation involves determining the contextual extensions of two different properties. It is easy to show that the property of being

¹⁶ Thus the meaning of *yesterday* could be given as “The calendar day (classificatory component) that succeeds (relational component) the time of speaking (deictic component).” It differs from *tomorrow* in virtue of its relational component, and from *yesteryear* in virtue of its classificatory component.

the speaker doesn't figure as part of the utterance content. Consider (6) and (7):

- (6) If this utterance had been produced by someone else, the group that includes its speaker would very likely be different.
- (7) If this utterance had been produced by someone else, we would very likely be different.

Utterances of (6) and (7) are not paraphrases. In (6) we have the option of evaluating the description *the speaker* relative to other possible contexts, where it might pick out someone other than the actual speaker. Whereas in (7) we substitute the speaker himself for the deictic component, and when we evaluate the utterance relative to other possible contexts, we look for a group that contains that very person. We might be tempted to say that with regard to its deictic component, *we* is "directly referential." But of course an occurrence of *we* does not *refer* to its index at all. The speaker is not the interpretation of the pronoun; he is simply the argument of a function to the interpretation. To determine whether *we* itself is indicative, then, we have to ask whether the (impure) property of including the speaker constitutes the propositional content that corresponds to an occurrence of the pronoun.

Suppose *we* were in fact a kind of concealed definite description whose content varied according to the identity of the speaker, like the content of a description like *my crowd* or *my team*, only vaguer. In that case, (8) and (9) should have analogous sets of readings:

- (8) My team could have been the winners.
- (9) We could have been the winners.

On its referential reading (8) is true just in case the team that the speaker actually belongs to could have won. On its attributive reading, it is true just in case the speaker might have belonged to whatever team won. But (9) has only the first reading. The property of being a group including the speaker isn't part of the interpretation, but rather a way of picking it out. That is, *we* is indicative.

Of course the meaning of *we* cannot pick out an interpretation all by itself. In any postlapsarian context, the speaker is sure to be a member of an indefinitely large number of groups of people. So the interpretation of an occurrence of *we* can only be resolved by consulting the speaker's intentions, the conversational purposes, and the linguistic context. In fact *we* may change its reference from one occurrence to the next, even within a single utterance, as in example (10), drawn from a biology text:

- (10) *We* do not know much about this part of the brain, which plays such an important part in *our* lives, but *we* will see in the next chapter. . . .

Here the first token of the first-person plural refers to the scientific community; the second to humanity in general; the third, according to the “tour guide” convention of academic writing, to the writer and the reader. Note that this example is not analogous to the uses of demonstratives that have seemed to require multiple indexing – “You take *this* glass and I will take *this* glass.” The speaker doesn’t change; rather, the range of relevant groups that include the speaker is construed differently for each occurrence of the pronoun.

In one sense, there is nothing new in this observation. People have often noted, for example, that the interpretation of *you* requires picking out the addressee, whose identity may depend on the speaker’s intentions.¹⁷ But there are two important differences between the cases. The index of *you* is chosen from among a usually small number of persons in the context, whereas the reference of *we* can in theory be any group in the universe of discourse. And the deictic component of *you* does provide a property that uniquely identifies the addressee, even if it is one that is constrained by the speaker’s mental state. That is, the addressee is not simply whatever person the speaker has in mind, but rather the conversational participant towards whom the speaker has made as if to display certain complicated communicative intentions. (So we are sometimes justified in ignoring the speaker’s actual intentions in interpreting *you*: “He thought he was addressing Esmé, but he was really addressing Cynthia.”) But when it comes to interpreting *we* there is no way to do an end run around intentions, and for this reason the truth-conditions associated with any utterance containing the pronoun are always underspecified by the semantic rules of the language. This is an inherent characteristic of all indexicals that involve deferred reference. And if we can show that deferred interpretations are potentially available for all indexical expressions, including *I*, as I will be arguing below, then it follows that we can’t circumscribe a class of “pure” indexicals, or rely on linguistic rules to provide the truth-conditions for any indexical utterances. And as we

¹⁷ Intentions play a role in identifying the speaker or agent as well, though their importance is more obvious in nonspoken discourses. When I put on a button that says “I like Ike,” the token of the first-person pronoun probably refers to me; when somebody pins a sign to my back that says “kick me,” it doesn’t really. In fact, natural language has no “pure indexicals,” as Kaplan uses the term.

will see in a moment, this observation has important consequences for the way we represent the interpretation of *we* and other forms.

2.2. *Interpretations of We*

What of the second prediction of standard accounts, that utterances containing *we* must express singular propositions? There are two complications here. First, as Partee (1989) has shown, *we* can sometimes function as a bound variable, as in (11), adapted an example of hers:

- (11) Whenever a pianist comes to visit, *we* play duets.

In (11), *we* may denote either the speaker and some other person who is not explicitly mentioned, or what is more likely, the speaker and an element from the quantifier context. Sentences like this one make it clear that not all utterances containing *we* express singular propositions, unless we allow, improbably, that the two readings involve homonymous forms. But in what follows, I will be concerned with uses of the pronoun whose interpretations are not drawn from the immediate linguistic context – the uses often (but misleadingly) described as “deictic.”¹⁸

The second difficulty in determining how this claim affects *we* is in saying what it means to express a singular proposition of the referent of a plural expression. It’s true that sometimes this is not problematic, as when I say of the group containing my wife and myself, “We can’t come to dinner that night.” Whether we say that *we* here denotes a group, a set, or the members of either, it is pretty clear that the identity conditions on the proposition expressed are just the identity conditions on the two individuals involved. But some other uses of *we* raise questions. The first of these is what I will call the “bare-plural” use, since the possible interpretations of the pronoun are parallel to those of the bare plural construction discussed by Carlson (1980). As spoken by a woman, for example, (12) may be synonymous with (13):

- (12) We are less likely to contract the disease than men are.

- (13) Women are less likely to contract the disease than men are.

The parallel extends to various other properties. As (14) and (15) show, *we* can co-occur with various kind-level predicates and generic quantifiers,

¹⁸ “Deictic” is misleading for two reasons. First, the deictic content of *we* always picks out an element from the context of utterance, even when the other members of the group are supplied by a quantifier. Second, when the reference of *we* is provided by the nonlinguistic context, it is usually not itself an element of the context of utterance.

which do not ordinarily co-occur with quantified NP's like *all linguists*, *some linguists*, and so forth.

(14) We are dying out (nearly extinct, thick on the ground around here).

(15) We are often blond.

Note also that *we* may have the existential or “kind-slice” readings associated with bare plurals. Compare (16), drawn from Carlson, and (17), as spoken by a woman.

(16) In the Soviet Union, women work in shipyards.

(17) In the Soviet Union, we work in shipyards.

The utterances have the same pair of readings, one of which says that there are women shipyard workers in the Soviet Union, the other of which says that women customarily work in shipyards in the Soviet Union.

In (12), to be sure, we may be willing to regard the denotation of *we* as a natural kind. And while there are other bare-plural uses that denote what we would ordinarily regard as nominal categories – lockkeepers or Mercedes owners, say – we can certainly introduce singular entities in the ontology that correspond to them, as well. For example Carlson treats a bare plural like *Mercedes owners* as the name of entity such that in every circumstance, every Mercedes owner is an object-level realization of that entity. In this sense the kind corresponds to the intension of the set of Mercedes owners without being identical to it.¹⁹ And as Carlson shows, it is possible to extend this treatment to cover even the existential readings of the NP in sentence like (16) and (17), which look at first blush as if they require an analysis where they contain existential quantifiers.

So there is no technical reason why we cannot treat all of these NP's as making direct reference to kind-level entities. For our purposes, moreover, it doesn't matter whether this preserves the philosophical spirit of the direct-reference approach. But it is not clear that any of this matters: if there is no discrepancy between the kinds of propositions that can be expressed by utterances containing indexicals and utterances containing descriptions, then the direct-reference claim no longer has any linguistic interest.

The same point can be made about another class of examples. Consider (18), as spoken by Justice O'Connor:

¹⁹ Chierchia (1984) offers for an alternative approach to this construction, though the differences aren't relevant here.

- (18) We might have been liberals.

This utterance has one reading on which it says of the actual members of the Supreme Court that they might have been liberals. But it also has a reading on which it means that there might have been other, more liberal justices serving on the Court – a reading that becomes more prominent if the sentence is prefaced by a clause like *If Democrats had won the last few presidential elections. . .*²⁰ Note that the interpretation of *we* here is not equivalent to a bare plural; as spoken by a Justice, (19) doesn't mean what (20) does:

- (19) Supreme Court justices might have been liberals.

Rather, *we* in (18) seems equivalent to a plural definite description, as in (20):

- (20) The Justices of the Supreme Court might have been liberals.

Like (18), (20) has a reading where it says that it is possible that the Court might have contained other, liberal people. But here, too, there are various possible lines of analysis. We could say that the description in (20) is simply the plural equivalent of an attributively used singular description like *The President*, in which case the utterance expresses a general proposition flat out. But we could also say that the expressions *the justices of the Supreme Court* in (20) and *we* in (18) denote a group entity, with the differences in interpretation arising out of the different conditions under which the predicate could apply to that group; i.e., through the conversion of its actual members or the substitution of new ones. But we don't have to go into the intricacies of plurals here. For our purposes, what is important is that indexicals and descriptions once again have the same range of interpretations: there is nothing a description can express that an indexical can't.

One other point, which will be methodologically important: there may be a temptation to argue that the general reading of utterances like (18) is derived (somehow) via a pragmatic inference from a literal meaning – or more specifically, a “literal utterance meaning” – in which *we* refers directly to the justices. But if that is true, we would expect that the same reading would be available for (21), where the justices are referred to by name, or for (22), where they are referred to with referentially used descriptions:

²⁰ There was an even clearer example of this type in a recent cartoon by William Hamilton, which showed a group of conservative middle-aged businessmen sitting around a boardroom table as one of them says: “In a couple of years we'll probably all be women.”

- (21) O'Connor, Rehnquist, Thomas etc. might have been liberals.
- (22) The first woman appointed to the Court, the Chief Justice, the most recent Supreme Court appointee, etc. might have been liberals.

But these examples have only *de re* readings. Yet if a pragmatic mechanism generates the general reading of (18), with *we*, it should be available to provide the same readings here.²¹ So the availability of this reading for (18) must follow from the semantic properties that are lexically associated with the pronoun.

2.3. Accounting for General Interpretations: The Road Back

With bare plural descriptions like *women* in (13) or definite descriptions like *the justices of the Supreme Court* in (20), the interpretation is derived in one way or another from an operation on the property provided by the meanings of the common nouns. Whereas in the corresponding examples involving *we* there is no linguistic source for the property or kind. The only property associated with the pronoun is the property of including the speaker. But we have already seen that indexicals like *we* are indicative, and in any event the property of including the speaker is not relevant to defining the kind denoted by *we* in utterances like *We are less likely to contract the disease than men are* or the quantifier or group that it denotes in *We might have been liberals*. So it is somewhat misleading to say that *we* “contributes” a property here (though I will continue to use this terminology in a loose way).

So we come to the obvious questions: where do the kinds or properties that figure in the interpretation come from, and exactly what role does the meaning of *we* play in determining the utterance content? One approach is to say that the property comes from the index itself. Given Althea's utterance of *We are less likely to contract the disease than men are*, we take one of her salient properties (i.e., of being a woman), and substitute it in the semantic representation associated with the bare plural construc-

²¹ It might be argued that the reason that the general reading arises in *We might have been liberals* but not in the versions with names or descriptions is that in the latter cases the implicature is somehow blocked in virtue of the manner of expression. But the alternatives have none of the linguistic properties that ordinarily figure in implicatures involving the maxim of manner – they aren't isn't wordy, obscure, or whatever. Nor could it be argued that the general reading is made particularly salient in virtue of the first-person mode of presentation in (18) – for one thing, the same reading is available when a third-person *they* is substituted for *we*, accompanied by an appropriate demonstration.

tion. For purposes of argument, let's assume Carlson's analysis of bare plurals as kind-denoting terms. Then Althea's use of *we* in (12) will have exactly the same content as the bare plural *women* in sentence (13) – it denotes the kind of things such that in all circumstances, all and only the objects that realize it have the property of being a woman:

$$(23) \quad \iota x^k [\forall y^0 \square [R(y, x) \leftrightarrow \text{woman}'(y)]]$$

But this approach raises some problems. As we saw earlier, the interpretation of any occurrence of *we* depends crucially on the speaker's intentions and other context-specific factors. But people often use *we* and plural *you* without knowing which property of the index is relevant to determining the kind they are referring to. Sometimes they have in mind only a type of property, as when a police officer says to a driver who speaks little English "You (i.e., you people) must not have stop lights in your country." And sometimes people may not even be clear about what kind of kind they mean an occurrence of *we* to denote, as when your mother said to you, "We don't talk with our mouths full."

In such cases it may be impossible to provide a specific property or set of properties to substitute in the interpretation, not just because there is no way to choose among alternate descriptions, but because no description is likely to do justice to the speaker's imprecise intentions, which are all we have to go on.²² (If you think that you can provide an explicit identification of the kind of people that your mother was referring with her token of *we*, I submit that you did not understand what she was saying.) And certainly the child doesn't have to construct such a property-description to understand his mother's utterance. Relative to the immediate conversational interests, there are just two kinds of people that matter: the kind of people who do the right things, of which the child is a probationary member, and the kind of people who do the wrong things, among whose unhappy number the child will be counting himself if he doesn't shape

²² All of this complicates the picture of how reference is determined when a speaker is operating under false beliefs. For example, suppose we ask whether an American who believes he is Napoleon can use *we* to refer to the class of Frenchmen in a sentence like "We suffered a defeat at Waterloo." The case is more puzzling than the analogous cases in which the speaker says "I suffered a defeat at Waterloo," which is presumably false. For if the speaker has not succeeded in referring to the French with his utterance of *we*, what exactly has he referred to? To Americans? That inference is justified only if we assume that the relation that the speaker intended as relevant in identifying the interpretation – i.e., between persons and nationalities – should be applied here to determine the actual referent. But if we are going to disregard the speaker's beliefs in determining the index, why should his intentions play a decisive role in determining which relation to the index determines the interpretation of the expression? So perhaps the speaker did not succeed in referring to anyone at all. Or perhaps he did in fact refer to Frenchmen.

up. There are other ways of describing this, of course, but any of them is approximate, and the consequences for the addressee are pretty much the same in any case. Against the situational division of the social world, the utterance does not have to tell him a great deal: it is enough to be able to identify the kind of people who don't eat with their mouths full as the kind that mommy realizes. And that is all the utterance says:

(24) \neg Eat-with-their-mouths-full [$\iota x^k[R(Sp, x)]$]

On this understanding, then, most of the work of specifying the interpretation is accomplished in the contextual background, rather than by the utterance, in a process mediated by the speaker's intentions, the linguistic context, considerations of relevance and so on. Taken together, these factors define a domain of possible referents, along several dimensions. As we would expect, they constrain the domain to a particular subregion of the universe of discourse, in the same way that is required, say, to achieve successful reference to a particular table with a definite description like *the table*. But they also determine what kinds of interpretations may be relevant: individuals, kinds, quantifiers, or whatever (though it may also be that in some cases, like the mother's example, even the distinctions among these may not be germane). And finally, they determine what kinds of criteria are relevant to individuating members of the domain (with the mother's utterance, for example, objects in the domain are individuated by whatever criteria distinguish kinds of people who have significantly different mores relative to immediate family interests). It is because the context does so much work that the grossly underspecifying meaning of *we* can turn out to be so useful.

2.4. A Note About Entailments

As is consistent with the assumption that the meaning of *we* is indicative, we interpret the stipulation that the speaker realizes the interpretation of *we* in (24) as not part of the content of an utterance. In this case, however, various inferences from utterances containing *we* will be left semantically unaccounted for. Used to denote a kind, for example, the bare plural carries no implication of existence; presumably the sentence *Lilliputians like Coca-Cola* could be true. But obviously an occurrence of *we* can only contribute a nonempty property, since the property must be instantiated by the speaker. In any context where an assertion of *We like Coca Cola* is warranted, that is, there is an inference to (25):

(25) The group of Coca-Cola lovers is nonempty.

By the same token, we would like to be able to draw inferences like that in (26), which is not available for (27), with a bare plural:

- (26) We are not all monolingual, since I speak two languages.
- (27) Americans are not all monolingual, since I speak two languages.

But it isn't necessary that these inferences should follow semantically from the utterance content, so long as they can be shown to follow from its mode of presentation. In this sense the inference in (26) would be something like the inference from (28), as spoken in a context *c*, to (29):

- (28) I am hungry.
- (29) Someone who speaks in *c* is hungry.

The fact that someone has spoken isn't part of the content of (28). But it is a part of the information conveyed by the act of utterance, given the hearer's knowledge of the linguistic meaning associated with *I*, so the inference to (29) follows from the assumption that (28) has been truthfully asserted. The inferences in (25) and (26) are analogous; the speaker's membership in the denotation of *we* is required by the linguistic conditions on the use of the form. (But these examples are not quite so straightforward as it appears, since we will see that it is not always required that *I* designate the speaker.)

Note that we will also have to call on these presuppositions to explain the syntactic distribution of *we*. For example, *we*, unlike the bare plural, does not occur in *there*-sentences:

- (30) In the Soviet Union, there are women working in shipyards.
- (31) ??In the Soviet Union, there are we (us) working in shipyards.

Thus *we* behaves like a "strong NP" (e.g., NP's whose determiner is *every*, *the*, *both*, *all*, etc.). Suppose we assume an analysis proposed by Alessandro Zucchi (personal communication), where strong NP's are defined as NP's whose use is felicitous only in contexts whose common grounds entail that the denotation of *N'* is nonempty. Then it makes sense

that *we* should pattern with NP's like *the boys*, etc, even though its interpretation is identical to that of bare plural NP's like *women*.²³

2.5. Summary: Indexicals and Indices

Let me summarize the conclusions so far, casting them not as thesis about *we* in particular, but about indexicals in general. First, indexicals are indicative: their linguistic meanings do not figure as part of the content of the utterances that contain them. The meanings of indexicals are composite functions that take us from an element of the context to an element of a contextually restricted domain, then drop away. Second, indexicals can have roughly the same range of interpretations that descriptions can: the utterances that contain them can express singular or general propositions, as the case may be. What makes indexicals exceptional is the manner in which their interpretation arises. A description characterizes its interpretations; an indexical provides an object that corresponds to it.

In this way the thing picked out by the deictic component of an indexical – the speaker, addressee, demonstratum, or whatever – is an “index” in the sense in which Peirce originally used the term.²⁴ It stands in a “relation

²³ In many ways, *we* behaves like a definite determiner. It patterns with *the* in construction with what are usually thought of as restrictive appositives, as in phrases like *all us Democrats* and *both us Democrats*. The syntax of these is puzzling if *we* is regarded as the head; note that nonrestrictive equivalents like *All us, Democrats, . . .* are not possible here. Or consider (i):

- (i) We few Democrats can do nothing.

The subject of (i) is not equivalent to “?we who are few democrats”; rather it is equivalent to a description *the few democrats*, with the added proviso that the speaker is one of the group. It might be argued, then, that the parallel between *we* and bare plurals is not exact; used to refer to a kind, *we* might better be thought of as a definite NP like *the French* or *the police*. On the other hand, this leaves unexplained the fact that there are restrictions on the use of definite plurals that are not observed with *we* when it is used to refer to a kind. Contrast:

- (ii) John dislikes redheads (us redheads, ??the redheads).

- (iii) Linguists (we linguists, ??the linguists) speak many languages.

²⁴ To be sure, when Peirce applied the word *index* to demonstratives he was thinking about the relation between the expression and the demonstratum:

The demonstrative pronouns, ‘this’ and ‘that’ are indices. For they call upon the hearer to use his powers of observation, and so establish a real connection between his mind and the object; and if the demonstrative pronoun does that – without which its meaning is not understood – it goes to establish such a connection, and so is an index. (1955, p. 110)

But the important point about Peirce’s definition of the index is that it is “a Representamen whose Representative character consists in its being an individual second.” If I read this

of contiguity” to its object, as a rolling gait to a sailor, a rap on the door to a caller, a symptom to a disease. This is the characteristic and most remarkable feature of these expressions. They enable us to turn the context itself into an auxiliary means of expression, so that contextual features are made to serve as pointers to the content of the utterance.

3. OTHER EXPRESSIONS: *I* AND *THOU*

Now I want to generalize this analysis to other indexical expressions. First for *I* and singular *you*. In giving the meaning of *I* as “the speaker of the utterance,” people do not ordinarily recognize any distinction between index and interpretation; the assumption is that the linguistic meaning of the word is restricted to what we are calling a deictic component. But *I* is not different in principle from other indexicals, and here too we can identify three components of meaning. *I* has a classificatory component, which requires that its interpretation be an individual or an individual property, which moreover can apply only to an animate. And as with the other participant terms (i.e., first- and second-person pronouns), *I* has a relational component that requires that the interpretation shall be instantiated by the index. What makes *I* deceptive is that these conditions impose a particular conjunction of constraints on its interpretation. For while a speaker can instantiate any number of groups, he cannot ordinarily instantiate an individual person to whom to he is not identical. So when *I* and singular *you* contribute an individual to the interpretation, it is almost always the speaker or hearer. (There are some apparent counterexamples to this claim, such as when someone says “I am parked out back” to mean “My car is parked out back.” But I will argue below that *I* does not in fact refer to a car in these cases.)²⁵ In short, *I* generally seems to conform to the standard direct-reference picture of how indexicals work – small wonder, given the amount of attention that has been given to the word.

But *I* and singular *you* can also contribute properties, in utterances that express general propositions. Consider (32)–(34):

- (32) *Condemned prisoner*: I am traditionally allowed to order whatever I like for my last meal.

right, it characterizes the interpretive role of the things picked out by the deictic component of indexicals: they figure not as individuals, but in virtue of their correspondences to other things.

²⁵ I am also ignoring the sorts of cases where an actor use *I* to refer to a character he is playing; e.g., “After the ghost of my father appears to me, I resolve to avenge his death.”

- (33) *President*: The Founders invested me with sole responsibility for appointing Supreme Court justices.
- (34) *Chess teacher giving an introductory lesson to a student who has just played 4. N × P . . .*: According to all the textbooks, you often get in trouble with that move.

The indexicals here have more-or-less the same interpretations as the attributively used descriptions in (35)–(37) (setting aside for the moment our earlier reservations about the possibility of determining exactly which properties are contextually relevant to the interpretation):

- (35) The condemned prisoner is traditionally allowed to order whatever he likes for his last meal.
- (36) The Founders invested the president with sole responsibility for appointing Supreme Court justices.
- (37) According to all the textbooks, the person who plays 4. $N \times P$. . . often get in trouble with that move.

But here, as with analogous examples involving *we*, we note that the general readings are not available when a name or referentially used description is put in the place of the indexical:

- (38) Darnay (the prisoner currently in cell 15) is traditionally allowed to order whatever he likes for his last meal.
- (39) The Founders invested George Bush (the man who ordered the invasion of Panama) with sole responsibility for appointing Supreme Court justices.
- (40) According to all the textbooks, Bill (my neighbor) often gets in trouble with that move.

All of these have only *de re* readings, from which we conclude that the readings in (32)–(34) can arise only when an indexical is used and that they could not be generated by some purely pragmatic process, which we assume would be no less available for the uses of names and descriptions

These raise complicated questions about fictional discourse, counterparts, and the like, which I don't want to take up here.

in (38)–(40).²⁶ As with the analogous examples in which *we* corresponds to a quantifier (recall *We might have been liberals*), the interpretation here is a property instantiated by the index.

However these interpretively general readings are represented, we can assume that they will have the same types of interpretations as attributively used descriptions like *the condemned prisoner*, *the person who plays 4*, *$N \times P$* , *the president*, and so forth. If this is true, however, we might be puzzled as to why the uses of *I* and singular *you* in examples like (32)–(34) are apparently much less frequent in discourse than the corresponding attributive uses of descriptions. One reason is that here, as with *we*, the pragmatic presupposition that the speaker instantiates the relevant property constrains the way the pronouns can be used. Note that the “attributive” readings of the indexicals generally emerge only in the presence of a modal or some other operator that requires us to evaluate the expression with respect to nonactual contexts. Thus there is no indexical utterance parallel to Donnellan’s classic example of an attributive description in (41):

(41) The person who murdered Smith is insane.

On the attributive reading, (41) says that whatever individual murdered Smith is insane. But now suppose Jones murdered Smith, and the detective says to him:

(42) You are insane.

This seems to have only a referential reading. But the reason is obvious. In order for the attributive reading of (42) to emerge, it has to be presupposed not just that there is a unique person who satisfies the description, but that the speaker doesn’t know, or makes as if not to know, who that person is. Hence the test that is often proposed for attributive readings, of being able to append “whoever that may be” or some such to the assertion. But it is a precondition for using singular *you* attributively that we already know that the addressee exemplifies the property in question, and the grammatical singularity of the pronoun requires that the property apply to a unique individual for a given circumstance of evaluation. If

²⁶ In this connection, note also (i), from an old music-hall song about an elf:

(i) I’m quite as big for me, he said, as you are big for you.

Me here clearly contributes a property instantiated by the index; i.e., the property of being an elf. Whether this use is playful or not, note that here, too, the general interpretation does not survive when a name is substituted for the indexical:

(ii) ??I’m quite as big for Tinkerbell, she said, as you are big for Wendy.

that circumstance is the actual world, as in (42), then there can be no doubt as to who is the unique person with the property in question. So unlike descriptions, uses of *I* and singular *you* cannot contribute a property whose unique extension in the actual context is undetermined – but because of the pragmatic presuppositions that attach to them, rather than the semantic rules that determine their interpretations. Despite the preponderance of use, that is, nothing in the grammar of English restricts *I* and singular *you* to be used only to refer to their indices.

3.1. *Demonstratives and Other Indexicals*

Let me turn now from the participant terms to the nonparticipant terms, beginning with demonstratives and the demonstrative uses of third-person pronouns like *he* and (animate) *they*. Like participant terms, demonstratives have a deictic component and a classificatory component, but they have no explicit relational component, as we will see in a moment. With demonstratives, however, the deictic component provides for the identification of an index, not in virtue of a recurrent utterance role or property, but in virtue of the location of the index. With dedicated demonstratives like *this* or *yon*, the deictic component is provided in part by the feature of linguistic meaning that indicates the location of the index relative to the speaker or addressee (e.g. the feature that distinguishes *this* and *that*), which may be supplemented by a demonstration. With demonstratively used pronouns, the deictic component is provided entirely by a demonstration. I should note that third-person pronouns also have indexical uses that are not demonstrative, as when someone walking through the Taj Mahal says, “He certainly spared no expense.” In this case the referent is not demonstrated; it is simply the person who is salient in the context. I will argue later that these “contextual” uses of pronouns are different in important ways from the explicitly demonstrative uses. (Of course demonstrations can also be used to clarify the deictic component of first- and second-person pronouns.)

To say that demonstrations are part of the deictic component of these expressions means that they are associated with the index or demonstratum rather than the referent. This point hasn’t been generally appreciated, since it only emerges when the index and interpretation are distinct, in what Quine (1971) describes as deferred ostension. The role of demonstrations is easiest to see in cases where the position of the index and the reference impose conflicting requirements on the choice of *this* or *that* or the form of a demonstration. Significantly, the index always wins. Thus

suppose I point in sequence at two sample plates in my china shop, the first sitting in front of me, the second on a table across the room. I say:

- (43) *These* are over at the warehouse, but *those* I have in stock here.

If I had “really” been pointing at the referents of the terms, it would have made more sense to have reversed *these* and *those*. In fact it is a striking property of these expressions that demonstrations *cannot* be used to identify their referents, as opposed to their indices, even when you would expect that they would come in handy. Take an example involving plural *you*. Bloom comes up to me at a party. He tells me that he arrived with O’Grady and Fong, who are standing at opposite corners of the room, each of them deep in conversation with his back turned to us. I point with one hand at Bloom and with the other at O’Grady and say:

- (44) I can take *you* to your homes . . .

and then I point at Fong, also out of earshot, and finish my utterance:

. . . but he lives too far away.

But this utterance is decidedly odd, unless you assume that I somehow intend the distant O’Grady to be one of my addressees – that is, that my gesture is intended to identify the indices of the term. When it is used to resolve the interpretation of an indexical, that is, a gesture can only be part of its deictic component.²⁷ (To be sure, gestures can be used to emphasize a referent that is independently identifiable, though in this case they should not properly be regarded as demonstrations. For example, identificational gestures are almost never required with the first-person singular, but of course a speaker may tap his chest as he says, “Hey, don’t try to fool *me!*”)

3.2. *Relational Component of Nonparticipant Terms*

I have already mentioned the second difference between participant terms and demonstratives: the latter impose no requirement that the index in-

²⁷ Another way of making the same point is to consider the use of gestures with *we*. Suppose George Bush is sitting in a room with Dan Quayle and Jim Baker, when an aide appears with two copies of a report, which he hands to the President and the Vice-President. Bush wants the extra copy to go to Baker, not Quayle, and so he points to himself and Baker and says, “No, give them to *us* . . .,” and then, pointing at himself and Quayle, adds, “not to *us*.” This is ill formed, but why? If a gesture could resolve the reference of an occurrence of *we*, it should be useful here. But if a gesture can only be used to identify the index, then

stantiate the interpretation. Thus a child cannot refer to her parents using *we*, but a teacher can refer to the child's parents with *they*. In fact we should properly say that nonparticipant terms simply have no relational component; used indexically, they can contribute any individual or property that corresponds to their indices in some salient way.

Just what constitutes a "salient correspondence" relative to a particular context is a fairly complicated question, which I have discussed at length elsewhere (see Nunberg (1979)). Roughly speaking, a speaker can get away with pointing at an object *a* to identify *b* when it is common knowledge that *b* stands in a certain relation to *a*, and when the knowledge that *b* stands in this relation provides a useful way of distinguishing *b* from the other things that the speaker might have intended to refer to. This can be refined schematically, but we should bear in mind the possibility of successful reference depends on the web of background assumptions that people bring to specific domains. For example, we can usually refer to newspaper publishers by indicating their publications, so we can point at a newspaper and say, "Murdoch bought that for \$10 million." But the fact of having published such-and-such a book is less useful as a way of identifying book publishers, since the properties that individuate publishers bear no close correspondence to the properties that individuate equivalence classes of books, and for this reason we cannot ordinarily point at a book and say "Murdoch bought that for \$10 million" – unless the book is one, like a dictionary, for whose compilation and preparation the publisher takes primary responsibility.

3.3. *The Role of Classificatory Features*

Inasmuch as the indices of nonparticipant terms need not instantiate their interpretations, the two objects will often differ with respect to the properties associated with the classificatory component of the expressions, over and above the differences in number that we have already looked at. So it is in cases of deferred ostension that we can verify that features like grammatical gender, natural gender, and the like are in fact associated with the classificatory component of indexicals, rather than with their deictic component. In a Romance language like Italian, for example, the choice of demonstratives is determined by a rule that stipulates that the gender of the demonstrative is determined by the grammatical gender of the name of the basic-level category to which the referent of the expression

an identifying gesture will always be out of place with *we*, since the index (i.e., the speaker) never needs further identification.

belongs, or in the case of animates, usually by the sex of the referent. Say two Italian furriers are standing in front of a cage containing a leopard (*il gattopardo*, masc.). One of them says to the other:

- (45) *Quelle si stanno per essere vietate.* “Those (fem. pl.) [i.e., those fur garments] are about to be banned (fem. pl.)”

The use of the feminine plural *quelle* here is determined by the gender of the word *la pelliccia* “fur garment”; nothing physically present in the context would warrant the use of a feminine form. In English, features of animacy and natural gender work in the same way. You can point at a girl child to identify her father (“He is in real estate”). You can point at a book to identify its author (“She was my chemistry teacher”), or at an author to identify a book (“That is a wonderful autobiography”). In each case it is the sex or animacy of the referent that determines the gender of the pronoun. The descriptors that accompany demonstrative adjectives work analogously. When you point at a book to identify a writer, for example, you say “that writer,” not “that book.”²⁸ But recall that the features that distinguish *this* and *that* are part of the deictic component of demonstratives, rather than the classificatory component. “This writer” refers to the author of the book I am holding; “that writer” to the author of the book you are holding.

Finally, note that these observations apply as well to the broad classificatory component that we can think of as “typological,” which distinguishes indexicals or demonstratives as temporal, spatial, and so on. You cannot demonstrate times other than the moment of speaking, for example, but you can demonstrate a thing that corresponds to a time – a 1970 Chevrolet, for example – and in that case you must use the demonstrative appropriate to times, not objects:

- (46) I was just a kid then.

By the same token, if you point at a picture to identify a place, you use *there*, not *that*.

²⁸ There are some apparent exceptions to this claim, as when a waiter refers to a customer with an utterance like “That ham sandwich left without paying.” But I will argue in the appendix that the descriptor *ham sandwich* here actually has a transferred meaning in which it applies to the customer.

3.4. *A Note on Kind-Level Individuals*

The absence of explicit relational component in nonparticipant terms makes it possible to exploit not just these extravagantly cross-sortal relations between referents and indices, but also some subtler ones. Consider sentence (47), taken from Carlson (1980):

- (47) The president inhabited the White House continuously for 136 years until Truman moved into Blair House.

Let me paraphrase Carlson's analysis of the subject of (47) by saying that *the president* here designates a discontinuous kind-level individual, all of whose stages are stages of the people who have serially filled the role of president. In this sense the interpretation of *the president* here is different from its interpretation in (48), where it is used attributively:

- (48) The Founders decided to give the president the right to appoint ambassadors.

That is, the Founders did not make their decision with regard to the series of individual stages who actually filled this role, or the kind-level individual who corresponds to them, but with regard to the property of being president.

Now consider (49)–(50), as spoken by the president:

- (49) The Founders decided to give me the right to appoint ambassadors.
- (50) ?I inhabited the White House continuously for 136 years until Truman moved into Blair House.

The first person pronoun in (49) can have a reading that makes the utterance equivalent to (48). But (50) can have only a nonsensical *de re* reading. This restriction makes sense if we assume that the NP *the president* in (47) actually contributes a kind-level individual, rather than a property. For this individual will not be identical to the speaker, and therefore cannot satisfy the requirement of instantiation imposed by the relational component of *I*.

But if this is right, we would predict that reference to kind-level individuals will be available with singular nonparticipant terms, whose relational component imposes no requirement of identity between index and interpretation. And this seems to be borne out. For example, contrast (51), as uttered by the Speaker of the House, with (52), as uttered by someone indicating the Speaker:

(51) ??I am usually of a different party from the president.

(52) He is usually of a different party from the president.

The same point can be made using examples of demonstratives. Suppose that Phoebe gets a larger and more expensive desk with every promotion. I walk into her new office, point at her desk and say (53) or (54):

(53) That used to be made of metal.

(54) That has grown more ornate with every promotion.

The content that corresponds to *that* here is not equivalent to the content of a description like “whatever desk Phoebe is sitting at”; in that case (53) would clearly be false. Rather, it is the (actual) kind-level individual of which the desk I am pointing at is the current stage.²⁹ But note that in other cases the demonstrative *that* can be used to contribute a property. For example, say I produce (55) or (56) in the same context as the preceding examples:

(55) According to the regulations, that must always be made of metal.

(56) That is what I have always wanted in my office.

Here the interpretations are equivalent to attributively used descriptions; e.g., “the (whatever) desk an employee of grade 10 or below uses,” “a (any) Breuer desk.”

3.5. *Times and Places*

What I have said about nominal indexicals applies as well to words like *now* and *here*. If anything, the point should be more obvious with these expressions, since it is well known that their references are generally regions of indefinite extent that include the time or place of speaking. For example, say I go to a talk at the Berkeley Linguistics Department and I run into an acquaintance whom I last saw two years ago when she was teaching at Michigan. I say:

(57) Are you here now?

meaning roughly, “Are you associated with this university in this academic period” (obviously if *here* and *now* denoted only the immediate location

²⁹ With an inanimate referent, of course, there is no possibility of using a participant term, so no contrast is possible.

of the utterance, I would not have to ask for confirmation of its content). Note that in this case the interval surrounding the tense of the verb *be* must also swell to fill the relevant interval; the interpretation is habitual or durative. So with these words as well we must distinguish between the index and the interpretation. As Levinson (1983) describes the meaning of *now*, for example, it denotes “the pragmatically relevant span that includes [the coding time].”³⁰

Note also that the place denoted by a word like *here* need not include the place of speaking, so long as it corresponds to it in some salient way. Say you call Jones at an old phone number you have for him, and the operator tells you, “He no longer works here,” meaning roughly, “He no longer works for the firm that is now located at the place I am speaking from.” The answer is consistent with the possibility that Jones never worked at that particular location; the firm could have moved in the meantime. In this case, then, *here* refers to a place that is distinct from the physical location of the utterance – a “social space,” say, that is identified via its correspondence to the index picked out by a particular use of the expression. Finally, note that *here* can also contribute a property, as when a medical pathologist points at a spot on his own chest and says, “When a person is shot here, we can usually conclude that it was not suicide.”

Adverbial phrases containing *now* and indexical adverbials like *tomorrow* behave similarly. Take (58) and (59), the latter drawn from an article in the University of Arizona newspaper that appeared on the Friday before the beginning of classes (with thanks to Dick Oehrle):

(58) The bookstore crowds usually abate a week from now.

(59) Tomorrow is always the biggest party night of the year.

Tomorrow in (59) is equivalent to a description: “the (any) Saturday before classes begin.”³¹ Note that here as well, this interpretation would not be available for a name or referentially used description:

³⁰ It might be argued that in cases like these *now* and *here* actually denote the time and place of utterance, but that these may be construed as indefinitely large. But when somebody uses *here* to refer to America and *now* to the 20th century, it seems a stretch to identify the referents with the place and time of utterance, and in any event this analysis can't be extended to the cases below where the reference doesn't include the index. On any approach, however, it is clear that there is no principled way of distinguishing between the uses of *here* and *now* that denote the immediate vicinity of the utterance and those that denote intervals of progressively larger dimensions. So an utterance of the sentence *I am here now* is always empirical.

³¹ In cases like these it is not easy to say how interpretation proceeds. In (#58), for example, we might take a property of the time of utterance *t* and then construe the descriptor *a week*

- (60) ??Saturday, September 14, 1991 (??the date of the 12th football meeting between Arizona and USC) is always the biggest party night of the year.

4. DEFERRED USE AND THE SEMANTICS-PRAGMATICS DISTINCTION

As I noted earlier, deferred reference hasn't been wholly ignored in the literature on indexicality, but its importance has usually been missed, out of a tendency to see these uses as "deviant" or "derivative." At one point, for example, Kaplan discusses the case of someone pointing at a flower and saying "He has been following me around all day," and observes in passing that "a background story can be provided that will make pointing at the flower a contextually appropriate, though deviant, way of pointing at a man; for example, if we are talking about great hybridizers" (1989, p. 570). I assume that Kaplan is using "deviant" here in a pretheoretical, intuitive way – the example just sounds funny. But this reaction may naturally lead someone to suppose that it is possible to circumscribe a group of "core" uses of indexicals that excludes deferred uses, and tell a coherent theoretical story about these. So it's important for us to be able to show that a distinction between deferred and nondeferred uses can't be justified on theoretical or intuitive grounds.

One way to do this is by showing that the oddness of certain deferred uses of indexicals has only to do with their particularities, not with any general constraints. For purposes of identifying one thing or property in virtue of its correspondence to some other thing, some relations are better

from (now interpreted at a type level) relative to that property, in which case the descriptive content is part of the classificatory component of the phrase. But we might also first evaluate the entire expression relative to the context to arrive at the time a week from the time of utterance, and then abstract to a property of that time. In that case we will say that the descriptive content of *a week from* is part of the deictic component of the expression. The first analysis seems preferable, first, because it is generally consistent with the way descriptors behave in other expressions (recall "This author (*book) is a friend of mine"), and second, because it seems as if the descriptive content of phrases headed by indexicals can generally interact scopally with other operators, which would not be possible if they were not part of the utterance content. Examples like (#58) and (#59) are tricky, times being what they are, but we can consider an utterance like:

- (i) If they put in express buses, there will often be a dangerous neighborhood two stops from here.

In (i) we evaluate *two stops from* relative to the context created by the conditional, so that the utterance will be true even if in the actual world the nearest dangerous neighborhood is five stops away.

– more salient, more reliable, more generally exploitable – than others. And as we saw earlier, the availability of deferred interpretations with any particular relation usually turns on a web of specific background assumptions (recall the example of “Murdoch bought that for \$10 million” used with a newspaper and a book). So while it is true that Kaplan’s flower example strikes us as strained, the problem here lies simply in the specific oddness of using a flower to identify a hybridizer – you would have to presume a context in which it was common knowledge as to who hybridized what, and which flower was which, and so on. (Then again, maybe horticulturally sophisticated speakers do this kind of thing all the time.) But there is no bizarreness in pointing at a painting to identify its creator – “Now *he* knew how to paint goats!” And at the limit, it would be captious to see any deviance in indicating a representation to identify the thing it represents, as when somebody points at a picture of Rudolph Carnap and says, “He was the greatest philosopher of the twentieth century.” So if we want the grammar of English to rule out examples like the flower case, we are left in an uncomfortable position. Either we rule out all cases of deferred use, throwing out a lot of unexceptionable babies with the bathwater, or we wind up having to introduce grammatical constraints to predict when deferred reference will be permissible – a hopeless task, given the gradience of intuitions about particular usages and the complexity and specificity of the background assumptions that license them. It is much cleaner and simpler to suppose that the grammar of the language places no restrictions on deferred use, leaving it to pragmatics to sort out individual cases. This doesn’t mean that the uses of indexicals to refer to their indices don’t constitute a philosophically interesting class, but only that they don’t correspond to a linguistic type.

A subtler version of the argument that the deferred readings of indexicals are derivative is given by Recanati (forthcoming, Chap. 10), in an effort to preserve the direct-reference hypothesis in the face of certain of the examples I have given here, as presented in an earlier version of this paper. Recanati is particularly concerned with what he calls “descriptive” interpretations (that is, uses where indexical utterances express general propositions). He acknowledges that these exist, but argues that they are realized at another level from their interpretively singular uses:

Nunberg’s observation concerning the possibility of attributive or descriptive uses of indexicals does not conflict with the central thesis of direct reference theory, namely the thesis of the asymmetry between referential and nonreferential terms with respect to their possible uses. It is true that both indexicals and descriptions can be used either referentially or descriptively. . . . Yet the asymmetry thesis, according to which the referential use of descriptions is optional (pragmatic) while the referential use of indexicals is mandatory (semantically marked) can be maintained if it is understood as characterizing the basic level of interpreta-

tion. At this level, indexicals must be given an objectual, singular interpretation, whereas descriptions can be interpreted either referentially or attributively. That an attributive or descriptive interpretation of indexicals becomes possible at the next level of interpretation does nothing to undermine the asymmetry thesis thus understood.

Now a large part of the disagreement here concerns the question of where to draw the line between semantics and pragmatics. On Recanati's view, there is a coherent level at which indexicals like *I* can be given a "literal" interpretation where they refer directly to their indices, with their descriptive interpretations arising as a kind of implicature.³² So *I* doesn't simply pick out its index, it also refers to it, with all the attendant implications for utterance content.

But there are various difficulties with this position, some of which I have already observed. First, sentences containing descriptive uses of indexicals may be incoherent if the indexicals are interpreted as making singular reference. Take examples (32) and (59), repeated here:

(32) *Condemned prisoner*: I am traditionally allowed to order whatever I like for my last meal.

(59) Tomorrow is always the biggest party night of the year.

In context, the adverbs *usually* and *always* must be understood as involving quantification over instances, but these readings are not possible if the subjects of the sentences are interpreted as referring to individuals or particular times. So it is hard to see what coherent "literal" interpretations we could assign to these utterances. This point is particularly obvious with examples that involve mismatches between the properties of a demonstratum and the properties of the referent that are relevant to determining inflection and the like: pointing at a book and saying *he* or *those*, pointing at a leopard and using a feminine demonstrative, and so on.

I have already mentioned the second reason for rejecting the thesis that the general readings of indexicals arise through a kind of pragmatic transfer: such a process would be expected to be indifferent as to whether the initial reference to the index was accomplished via indexical reference or the use of a proper name or referentially used description. These disparities could only be accounted for by postulating a semantic apparatus of some sort, which is to say that there must be a semantic provision for deferred interpretation.

At the same time, I think Recanati is right to insist that the central

³² I say "a kind of" implicature because according to Recanati's pragmatic theory, which I cannot do justice to here, the "descriptive" readings that indexicals acquire at "level three" are properly part of what is said by the utterances containing them.

claim of direct-reference theories – “the thesis of the *asymmetry* between referential and nonreferential terms” – survives the challenges posed by the observations I have offered here. On the view I am urging, to be sure, this is no longer a thesis about the kinds of interpretations that are available for the two types of expressions. But there is still a semantic distinction to be made between descriptions and indexicals (or at least certain indexicals) with regard to the role that their meanings play in interpretation. Indexicals are indicative: their meanings don’t enter into the content of the utterances that contain them, but rather pick out an element that serves as a pointer to the interpretation, in virtue of its correspondence to a particular, possibly different individual or property.

5. CONCLUSION: INDEXICALITY AND DEIXIS

For the moment, let me use the term “strong indexicals” to describe expressions like *I*, *we*, *tomorrow*, and the like, which are indicative, and which can be used in deferred reference. Now we can return to the question I mentioned at the outset: just which indexical expressions are strongly indexical? We have already seen that strong indexicals cannot be identified just with dedicated indexicals, since pronouns like *he* have strong indexical uses, but have no explicit deictic component, and may also be used as bound variables and anaphors. Unless we are willing to suppose that the indexical and anaphoric uses of third-person pronouns involve homonyms, then, we have to allow that strong indexicality is sometimes a property of the uses of expressions, rather than of the expressions themselves.

On the other hand, not all expressions that can be used indexically have the interpretive properties that make for strong indexicality. Consider the uses of pronouns with no accompanying demonstration to refer to a person who is simply salient in the context or in the consciousness of participants:

- (61) *We are walking through the Taj Mahal*: Gee, he certainly spared no expense.
- (62) *To my wife, who has just returned from a trip to the zoo with our daughter*: You look exhausted; what did she do?

These uses are clearly indexical – there is no linguistic source for the reference of the pronoun – but they are not demonstrative or deictic. Let me say that they are simply “contextual.” The distinction between the two kinds of uses may be clearer still if we consider the contextual uses

of *it*. *It* does not permit deictic or demonstrative use. So you cannot point at one of the glasses of wine sitting before you at the table and say:

(63) Now *it's* what I call a good burgundy.

But *it* can be used to refer to an element of the context that has not previously been identified, as when someone opens a birthday present and says to the giver:

(64) Oh, it's beautiful!

But note that *it* cannot be a strong indexical, as we see when we try to construct examples involving deferred reference. For example, suppose you are flipping through the channels of the TV when the face of (San Francisco Giants star) Will Clark appears on a news show. Contrast my possible remarks in (65):

(65) Don't change the channel. That (?it) is my favorite team

Or suppose we drive past a car that has just hit a tree, in circumstances where the accident manifestly has both our attention. I can say (66) but not (67), where the intended reference is to an accident-type (or accident-kind-slice), though the demonstrative *that* can be used here:

(66) Gosh, it must have happened just a second ago.

(67) ?It has happened a number of times on this stretch of highway.

The same point can be made about nondemonstrative uses of *he* and *she*, though here it is not always easy to say when the context provides an implicit demonstration. But contrast two situations. In the first, we are at a party and see Ralph in friendly conversation with Clovis, apparently unaware that Clovis has been carrying on a clandestine affair with his wife. I point at Ralph and say:

(68) It's like they say: he is always the last one to know.

meaning, "the husband is always the last one to know." Here *he* contributes a property. But now suppose we are driving past Ralph's house late at night and we see Clovis leaving. I can say "He must be away" to refer to Ralph, but I can't say "He is always the last to know," to refer to the role Ralph exemplifies. So deferred reference is possible only when the pronoun is accompanied by a demonstration.

Strong indexicality requires deixis; that is, explicit indication of a feature of the context of utterance. With words like *I* and *tomorrow*, deixis is supplied by the part of the linguistic meaning I've been calling the deictic

component. With pronouns and analogous expressions, deixis must be supplied by a demonstration. In the absence of deixis, deferred interpretation is not possible.

This predicts that strong indexicality will not be a property of the indexical uses of words like *local*, which have no deictic component and cannot be accompanied by a demonstration. For example, contrast (69) and (70) (I use a superscript *i* to indicate an indexical use of an expression that may also have nonindexical uses.)

(69) The best mushrooms are found locallyⁱ (nearbyⁱ, etc.).

(70) The best mushrooms are found around here (in this area).

If *locally* is given an indexical interpretation of in (69), the utterance means that the best mushrooms are found in the region surrounding the place at which the sentence is uttered. An utterance of (70) may have this reading, but it may have another reading, as well. For example, suppose the speaker of (70) is standing by the bank of a stream; then he may mean something like “The best mushrooms are found around the banks of a stream.” That is, you could utter (70) in California to tell somebody how to find mushrooms in Italy. Significantly, this reading is not available for (69). The place of utterance may serve to anchor *locally* and *nearby*, but it is not available to serve as an index in the strong sense; the reference cannot be to some other place that corresponds to the location of the utterance.

The corollary of this observation is that even items that are usually strongly indexical, such as demonstratives, cannot have deferred readings when they are controlled by contexts other than the context of utterance. For example, the word *that* can be used as a discourse anaphor, as in (71), or as a bound variable, as in (72):

(71) Melissa made herself a mask and cape; that will be her costume.

(72) Every girl brought her favorite piece of clothing to school and wore that to the party rather than her uniform. (from Chierchia and McConnell-Ginet (1990))

But in these uses *that* does not permit deferred reference. For example, you can point at a baseball player to identify a sport, or at a cartoonist to identify a comic strip:

(73) That’s what we should play at recess.

(74) That’s the first thing I turn to in the *Chronicle* every morning.

But these relations can't be exploited in sentences like (74) and (75):

- (75) ??Every girl who brought a picture of her favorite athlete wanted to play that [=that athlete's sport] at recess.
- (76) ??Whenever Mary sees a successful cartoonist on TV, she can't understand why that [= the cartoonist's comic strip] sells when her comic strip doesn't.

Analogously, an anaphoric use of *he* cannot pick up a property from the denotation of an antecedent that is a proper name, or from a quantifier context. One can point at a tenor playing a role that is usually sung by a baritone and say "He is a usually a baritone," but (77) and (78) are not possible:

- (77) ??Pavarotti is very good in *Così Fan' Tutte*, even though he [= the role Pavarotti is singing] is usually a baritone.
- (78) ??Every mezzo has difficulty when she [=the role sung by the singer] is usually a coloratura.

So it seems that there are really two kinds of "indexicality." With the first type, an expression picks out a contextual element that serves as a pointer to the interpretation. We've seen that this type is invariably associated with an explicit deictic component, so we can now drop the term "strong indexicality" and refer simply to "deictics." With the second type, the contextuials, the expression may be anchored to an element of the utterance context, but that element is not an index in the strong (Peircean) sense of the term. In fact contextual expressions are often not properly indicative, in that even when their values are determined by the utterance context, their meanings may figure in the utterance content. There are various ways of showing this. For example, inasmuch as the content of a deictic expression isn't part of the utterance content, it can't exhibit scope interactions with other operators. But now contrast (79) and (80), both as spoken by a passenger on a cross-country train:

- (79) The landscape around here is getting prettier.
- (80) The local¹ landscape is getting prettier.

In (79), *around here* can only denote the place surrounding the immediate point of utterance, and the utterance can only mean that that very place is getting prettier (maybe the train has been stalled for a long time). But (80) can mean that the landscape around the point of utterance is prettier than the landscape that surrounded the place where the speaker was a

half-hour ago. That is, the utterance has a reading where the progressive has wide scope over the meaning of *local*, which seems here to be roughly equivalent to a description like “the area surrounding the speaker.” The same point can be made using examples of verb-phrase ellipsis. Take (81) and (82), as fragments of a long-distance telephone conversation:

- (81) A (in Palo Alto): My boss in Connecticut always likes to hear about the weather around here.
 B (in Los Angeles): My boss in New York does, too.
- (82) A: My boss in Connecticut always likes to hear about the localⁱ weather.
 B: My boss in New York does, too.

In (81), B’s response can mean only that his boss likes to hear about the weather in Palo Alto. In (82), assuming an indexical reading for A’s use of *local*, B’s utterance can mean either that his boss likes to hear about the weather in Palo Alto or that she likes to hear about the weather in Los Angeles (but not, notably, that she likes to hear about the weather in New York, a point which argues against an analysis of *local* as merely vague). That is, *around here* behaves like a singular term or proper name, which doesn’t contain a variable that can be reinterpreted in the target clause. Whereas *local* has to provide some content that can be abstracted over.

I won’t try to provide a semantic apparatus to deal with the uses of *local* in examples like (80) and (82). The moral I want to draw, rather, is that the notions of “context dependence” and “indexicality” are in fact heterogeneous phenomena, which involve two notions of the “context of utterance” itself. At one level, we can treat the context of utterance on the model of the discourse context and quantifier contexts, which provides a set of individuals, coordinates, and so on that can anchor or bind the expressions in an utterance. This is the understanding that has made possible the unified accounts of anaphora and related phenomena within approaches like Discourse Representation Theory. For such purposes, the important question is simply *when* an anaphor or analogous expression can be controlled by the utterance context, and not what kind of interpretation it ultimately receives. For example, such a theory need not distinguish between the contextual (nondemonstrative) and deictic (demon-

strative) uses of *he*; in either case, what is relevant is that the form admits of pragmatic control.³³

At another level, however, the context of utterance plays a unique role in interpretation, and can't be assimilated to the "contexts" created by linguistic means. Crucially, only the elements of the utterance context are accessible to deixis, which picks them up and makes them pointers to interpretations. As I've tried to show here, it is deixis, not indexicality, that introduces the particular semantic properties associated with words like *I* and *that*. In the end, I think this is the insight that is implicit in direct-reference accounts of demonstratives and their kin, though it comes out looking a little different here. In any event, deixis is the obvious place to look for further understanding of these phenomena.³⁴

6. APPENDIX: "I AM PARKED OUT BACK"

I will close by mentioning one set of apparent counterexamples to some of the claims about indexicals that I have made here. We saw earlier that

³³ Even if an expression is restricted to contextual use, it may not be deictic in the sense we are talking about here. That is, not all dedicated indexicals are strongly indexical. For example, the postposition *ago* has only contextual uses. In (i), *ago* cannot be controlled by the quantifier, as *before* can in (ii):

- (i) ??Every writer who visited Paris in the 1930s wished he'd been there ten years ago.
- (ii) Every writer who visited Paris in the 1930s wished he'd been there ten years before.

But *ago* does not license deferred use, as we can see from the contrast between (iii) and (iv):

- (iii) When I was a kid, they began to decorate the trees a week before now.
- (iv) ??When I was a kid, they began to decorate the trees a week ago.

But note that *ago* behaves like *local* with regard to VP ellipsis. Say A and B are talking on the telephone:

- (v) A: I suddenly stopped stuttering two sentences ago.
B: So did (I)

The only plausible reading of B's response is one where he stopped stuttering in the second of his own sentences before his own present utterance. This suggests that the meaning of *ago* has to be represented as part of the content of A's utterance, so as to be available for abstraction; it is roughly equivalent to a description like "before the current [interval-measure]." That is, *ago* is exclusively contextual, but is not indicative.

³⁴ It is not clear whether the operation of deixis is only associated with indexical expressions (i.e., deictics and contextuels). There is a kind of secondary deixis that can apply to certain uses of referential descriptions and proper names, tuning their conventional denotations

the pronoun *I* seems to be highly restricted in its possibilities of reference. When it contributes an individual, that individual can only be the speaker, except under special circumstances (as when an actor refers to the character he is playing). But in sentence (83) *I* seems unaccountably to refer to a car:

(83) I am parked out back.

That is, the sentence appears to involve a case of indexical reference that is parallel to that in (84), where one carhop hands a key to another and says:

(84) This is parked out back.

I assumed this analysis when I discussed this sentence in some earlier papers, and so have several other writers on this topic. On consideration, however, there are a number of suggestive differences between the usages in (83) and (84). For example, suppose the key that the carhop hands over in fact fits two cars. In that case he would say:

(85) These are parked out back.

Here the plural demonstrative is associated with a plural referent, as predicted by the account of classificatory features like number that I sketched out earlier. But if I have two cars parked out back, I cannot refer to them using a plural first-person pronoun, as in (86):³⁵

(86) We are parked out back.

Note also that the subject of *I am parked out back* will not take a relative clause that applies to a car, but will take a relative clause that applies to a person, whereas with *This is parked out back* we see the opposite effect: a relative clause can apply to the car but not the key:

(87) *I, which is (am) a blue Chevrolet, am parked out back.

into demonstrations of a contextually salient role. Suppose I am visiting you at your home in a dangerous neighborhood. There is a knock at the door and you open it without looking first to see who is there. It turns out to be only harmless old Jones, but I want to remind you that you have been rash. So I say "Be careful; Jones over there could have been a burglar," meaning not that Jones himself could have been a burglar, but that there could have been a burglar filling the role he corresponds to. But this analysis requires more elaboration than I can give it here, particularly since this construction turns out to involve a number of semantic and syntactic wrinkles.

³⁵ What is more, if *I* in (83) refers to a car, then we should expect third-person verb agreement, as in **I is parked out back*.

- (88) I, who am an excellent tipper, am parked out back.
- (89) This, which is a blue Chevrolet, is parked out back.
- (90) *This, which I just had duplicated at the locksmith, is parked out back.

Finally, note that the pronoun in (83) can be replaced by a proper name or a referentially used description:

- (91) Geoff (the guy who lives at 3537 21st street) is parked out back.

But we saw earlier that the possibility of deferred reference is not generally preserved when a name or referential description is used in place of the indexical term.

All of these observations suggest that (83) should not be analyzed as a case of deferred ostension, where the pronoun *I* refers to a car. Rather it is the predicate that has a transferred meaning here. In virtue of owning a car that has the property of being parked out back, that is, I myself inherit a derived or secondary property that we can render as being-parked-out-back'. And (83) simply predicates this property of me. Hence the observations about number and relative clauses and the possibility of substituting a name for the indexical.

Thus (83) and (84) involve fundamentally different mechanisms. With *This is parked out back* we have straightforward indexical reference, where the referent of the demonstrative is an object that stands in a certain correspondence to the demonstratum, the key. Whereas what licences property inheritance is a correspondence between properties, not between individuals or between individuals and properties. Schematically, the process works like this. Say *P* is a property that is useful for distinguishing a particular object from other things in a certain domain *A* (e.g. being parked out back, for the domain of cars in the lot). And say *b* is an object that corresponds to the member of *A* that has *P* (e.g. the owner of the car in the lot that is parked out back). And suppose, finally, that the property that *b* inherits in virtue of his correspondence to the member of *A* that has *P* (e.g., of being the owner of a car parked out back) provides a useful way of distinguishing *b* from other things, or is somehow conversationally remarkable. Then an expression that denotes *P* can be used to express the property *P'* that *b* inherits.

Leaving aside the details of this process, it is important to realize that the circumstances of a given context may allow one process but not the other. With indexical reference, we only need to worry about the kind of

correspondence that holds between the index and the interpretation. In a context where there is a useful correspondence between keys and cars, for example, a garage mechanic can demonstrate a key to refer to a car for purposes of saying anything at all about the car:

- (92) This needs a lube job (was supposed to be returned a week ago, diesels when started in cold weather, has proven itself unreliable).

But with property transfer we require not just that there be a correspondence between two things; the fact that a particular property applies to one thing also has to have interesting consequences for the thing that it corresponds to. For this reason, the acceptability of utterances like (93) will vary according to the particular property that is predicated of the subject:

- (93) I need a lube job (?was supposed to be returned a week ago, ?diesel when started in cold weather, ?have proven myself unreliable).

To take an even clearer example, you might point at a picture of John Ashberry to identify his most recent book, using the demonstrative *that*, with no restriction on the things you could say about it:

- (94) That is in all the bookstores (on the top shelf, temporarily out of stock.).

But while John Ashberry might easily say of himself “I am in all the bookstores,” it would be odd for him to say “I am on the top shelf” or “I am temporarily out of stock,” unless it could be supposed that the fact that an author’s book was on the top shelf or was temporarily out of stock carried some noteworthy implications for him.³⁶ With *I* in place of *that*, that is, (94) makes an assertion about Ashberry, not his book.

³⁶An understanding of property transfer has important consequences for syntax, as well, since its effects may create apparent complications for the conditions on syntactic identity that are relevant to the application of processes of anaphora and ellipsis. On standard analyses, for example, the denotation of the reflexive in a sentence like (i) is distinct from that of its antecedent:

- (i) Ashberry does not like hearing himself read aloud.

But Ashberry might also say “I am rarely read aloud” or “I am not read much any more,” in which cases, following the analysis of utterances like “I am parked out back,” we would analyze the predicates as denoting inherited properties that apply to persons. Taking the same approach with (i), we can say that the reflexive and its antecedent have the same denotation, so that the sentence requires no special syntactic or semantic apparatus.

Still, the two processes often yield parallel patterns of use, since the contextual assumptions that license indexical reference will often license property transfer as well. For example, in just those situations in which a waiter can point at a ham sandwich sitting on a service counter and utter (95) to identify the person who ordered it, he can also utter (96), using the predicate *ham sandwich* to express a property that applies to ham-sandwich orderers:

(95) He is sitting at table 7.

(96) The ham sandwich is sitting at table 7.³⁷

Parallels like these have led some people, myself among them, to suppose that a single process of “deferred reference” might explain both types of deference.³⁸ On consideration, though, the two utterances involve distinct linguistic phenomena, which happen to exploit the same regularities in the world.

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³⁷ When we use the phrase *that ham sandwich* to refer to a person, the descriptor *ham sandwich* actually applies (on an inherited reading) to the interpretation, not the index. So this is not a counterexample to the claim I made earlier that the content of these descriptors is part of the classificatory component of these phrases.

³⁸ I argued as much in Nunberg (1979). But other people have perceived difficulties in establishing a unified account of deferred indexical reference and deferred description, among them Sag (1981), Kleiber (1984), Clark and Schreuder (ms) and Fauconnier (1985).

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