

## **Deixis**

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Deixis is a type of reference constituted by the meaning of a linguistic sign being relativized to the extra-linguistic context in which the sign is used. The semiotic nature of this kind of reference, its exact communicative prerequisites and functions, its acquisition by children, and its processing have long puzzled linguists, philosophers, psychologists, and anthropologists. This article presents an introduction to some of the research that has focused on deictic signs and meanings and their phenomenology.

### **1. Introduction**

It is one of the fundamental design features of human language that the interpretation of linguistic utterances may strongly depend both on the linguistic and the non-linguistic context. This context dependence of linguistic reference is known as *indexicality* (cf. Silverstein 1976). It has been argued by philosophers that in fact without some such underlying indexicality in all *referring* expressions, no successful reference to the world would be possible (Putnam 1975). Take, for example, the utterance *She brought this flower for me yesterday*. The noun *flower* has a meaning that can be defined independently of context (e.g. >the reproductive organs of a plant and their colored (non-green) envelope=&=), and it can be used to refer to real or imaginary flowers that fulfill this definition. Yet, in order to successfully refer to a plant as a *flower*, more than mere knowledge of the meaning of *flower* is required: speaker and addressee have to agree on the plant

being identifiable by that term (botanists for example use the term differently - they do not require the envelope to be colored).

However, there are expressions that point to the context in their very meaning, such that they cannot be used to refer to anything before the relevant information from the context is retrieved. In the above example, the pronoun *she* takes up a referent of feminine gender that must have been introduced in the preceding stretch of discourse (if the speaker announced in the preceding utterance that he is planning to marry his girlfriend Helen, then it will be inferred that it was Helen who brought him the flowers). This illustrates *anaphoric* reference. *Deictic* reference occurs whenever a linguistic sign receives part of its meaning from the *extra-linguistic* context. For example, the pronoun *me* refers to the speaker - it has a different meaning depending on who utters it. The demonstrative *this* selects a referent in the speaker's proximity - *this flower*, as opposed to *that one over there* (at least in its most simple spatial use). The verb *bring* designates transport to a deictically defined location (*here*); this could be the location at which the conversation takes place, or the speaker's home (there are in fact many possibilities). The past tense of *brought* indicates that the flower arrived at this location prior to the time of utterance, and the adverb *yesterday* restricts this time interval to the day before the day of utterance. So in order to know what exactly is meant by *She brought this flower for me yesterday*, and whether this statement is true, one first needs to know who uttered it, on what day, and where.

It can be argued that reference to most objects (including people), places, and times in the real world (to be precise, to all those that neither have a proper name nor a

unique status, such as celestial bodies) ultimately requires some form of deictic anchoring. To understand this claim, one may select an object at random from the environment and try to make a statement about it that avoids any form of deixis. If the claim is correct, it follows that language could not be used to talk about the real world (other than in generic statements) without deictic reference.

## **2. Deictic expression vs. deictic use**

The class of linguistic expressions that can be *used* deictically is much larger than the class of linguistic signs with an inherently deictic meaning. Relational expressions seem to have a particular propensity of being used deictically or anaphorically. Relational terms in the domain of spatial orientation are often used deictically, even when their >arguments= are expressed non-deictically, because they imply a particular observer perspective. Thus, *The rock is left of the tree* means that the rock is to the left of the tree as projected from an observer, as the tree has no inherent left, and *The rock is in front of the tree* means it is between the observer and the tree, as the tree has no inherent front; the perspective will usually be understood as that of the speaker, the addressee, or both. However, the same terms refer non-deictically when used with respect to people (which do have an inherent left side) or e.g. buildings (which do have an inherent front), respectively (Fillmore 1997).

## **3. Deixis and indexicality**

Definite descriptions are indexical. Thus, *the chair* refers to a chair that the speaker assumes to be uniquely identifiable to the addressee, e.g. >the aforementioned chair=. Therefore, definite descriptions can be used deictically, provided the

uniqueness condition is fulfilled in the context: *Move the chair over!* will be felicitous in a situation in which there is only one free chair in the room and the addressee is aware of that. Anaphoric expressions generally admit deictic use, while anaphoric use of inherently deictic terms is usually more restricted. True time-deictic expressions apparently cannot be used anaphorically at all, and neither can genuine first or second person pronouns. The English demonstratives *this* and *that* can both be used anaphorically, though under slightly different conditions (see Fillmore 1997), and so can the proximal and distal place adverbs *here* and *there*. In contrast, in Yukatek Maya, only the distal demonstrative forms and adverbs can be used anaphorically (Hanks 1990). The combined impact of the rather weak deictic anchoring of demonstratives in some languages and the pervasiveness of their non-spatial uses has led some researchers to propose non-spatial analyses of the underlying meanings. Similarly, Wilkins & Hill (1995) show that *go* and its equivalents in other languages only acquire a deictic reading pragmatically, through the contrast with a truly deictic *come*.

#### **4. Transposed deixis and text deixis**

Textual deixis occurs when (part of) an utterance or discourse is itself the referent of a deictic expression, as in *The preceding sentence contains 27 words*. It has been suggested that some form of textual deixis is present in every anaphoric reference, to the extent that anaphors direct the addressee's attention to an earlier mention of the referent. As long as it is clearly discernible as deixis, textual deixis will always have a *metalinguistic* reference. But as soon as any part of the *meaning* of an utterance becomes the target, textual deixis becomes increasingly indistinguishable from anaphoric reference. An intermediary case is constituted by reference to propositions, facts, or events (cf. Lyons 1977).

Transposed deixis is constituted by an *imagined* situation replacing the actual speech context as the >indexical ground= of a deictic form. When the imagined situation is itself described in discourse, this may have a quasi-anaphoric effect. Consider *He arrived in Paris in early May. Now he finally had the time to explore this great city.* The deictic forms in the second sentence refer to the time and place introduced in the first sentence. However, they are relativized to the character perspective and therefore function as true deictics. This perspectivizing effect was actually one of the primary concerns of Bühler (1934), who laid the foundations of modern research on deixis.

## **5. The semiotics of deixis**

Many philosophers of language have pondered the nature of deictic expressions. Perhaps the most widely known account is within the semiotics of C.S. Peirce. Signs are classified in this framework based on the relationship between their form and the object they represent into *icons* (constituted by similarity; e.g. pictures, blueprints, maps), *indexes* (constituted by an >existential= relationship; e.g. a pointing arrow, or smoke as a sign of fire), and *symbols* (constituted by convention; e.g. hammer and sickle as the symbol of communism). Like all linguistic signs, deictics are fundamentally symbolic on this account; that is, their form does not stand in any *natural* relationship with the object they designate. However, deictic expressions are then often considered >indexical symbols= (e.g. Tanz 1980) which somehow combine symbolic meaning and indexical reference. Notice, though, that it cannot be the expression itself, as a *type*, that bears the >existential= relation in Peirce=s sense (which in the case of deictics is always a relation of spatio-temporal contiguity), but only its *use* in a particular context, as a *token* (Silverstein 1976), as

an acoustic or graphic gesture, as it were (often accompanied by a manual gesture, see below). This >token-indexicality= evidently underlies *all* deictic reference, irrespective of whether the form used deictically is itself a deictic or a non-deictic expression. What, then, is the symbolic meaning of deictic signs?

## 6. The semantics of deixis

As illustrated with the example *flower* above, the conventional type meaning of a non-indexical term can be conceived of as a set of criteria that has to be fulfilled by all possible referents of the term. This is called an >intension= in the tradition of Frege and Carnap. Indexical signs do not have such intensions. The perhaps most striking feature of indexical *meanings* is that they cannot be completely reduced to non-indexical meanings (although the indexical components of an utterance may of course be replaced by non-indexical expressions that happen to have the same *referents*). Philosophers (notably Reichenbach) have attempted to paraphrase an utterance like *I am writing this article* as >The person who writes the sentence that contains the reference to the person at the time of writing the sentence is writing an article that contains the sentence=. This would in fact eliminate all deictic reference, but it would also fail to identify any article or person in particular, and would therefore make little sense.

D. Kaplan has suggested that the meaning of indexical expressions is not an intension, but rather a rule that directly determines a referent in the context in which the expression is used (e.g. Kaplan 1990). For example, the rule associated with the pronoun *I* may be stated as >The referent is the person using the pronoun=. It is not the rule that contributes to the propositional content of the

utterance, but merely the referent. The rule belongs to a fundamentally different type of meaning, which Kaplan calls *character*.

It is presumably due to their lack of intensionality that no more than a few distinctions of deictic reference are made in each of a limited number of highly general semantic domains in every language. Deictic expressions single out persons as participant roles with respect to the speech act (speaker, addressee, non-participant, and, in some languages, non-addressed participant); they may encode the relative social distance between these (an example are honorific pronouns such as French *vous* or German *Sie*; cf. Brown & Levinson 1987); they refer to objects in space (demonstratives), to locations (place adverbs and motion verbs; cf. Rauh 1982), and to times (tenses and time adverbials). No language has been attested to have a genuine event deictic, but many languages (including Yukatek) have manner indexicals (translating >like this/that=) that are used in reference to events.

## **7. The pragmatics of deixis**

Indexical elements have, arguably, three functions in linguistic utterances. Firstly, they represent the referent in the utterance, as a variable of sorts. Secondly, they specify what may be called a *search domain* for the referent in the context. And thirdly, they direct the addressee's *attention* to the referent. The latter two functions constitute the >character= of the indexical sign.

The complexity of deictic search-domain distinctions varies considerably across languages (see Anderson & Keenan 1985, Weissenborn & Klein (ed.) 1982). Where the English demonstratives *this* and *that* make just a two-term distinction of

distance relative to the speaker, the Bantu language ChiBemba is said to distinguish proximity to the speaker, proximity to the addressee, proximity to both, distance to both, and relative proximity to the speaker *with respect* to the addressee (other languages have been claimed to make even more fine-grained distinctions, but more recent research has failed to confirm such analyses). Whereas English demonstratives distinguish essentially *relative* distance, such that *this* and *that* may be used *contrastively* within a space close to the speaker, the Yukatek system mentioned earlier operates on an *absolute* proximal-distal distinction. Similarly, whereas English tenses merely distinguish past, present, and future with respect to the utterance time, many other languages distinguish e.g. a past of the same day from a >yesterday= past, a >tomorrow= future from a more distant future, and so on. ChiBemba distinguishes four such >degrees of remoteness= in the past and four in the future (Givón 1972). For an example of a complex pronominal system, see Foley (1997: 112-118) on Tagalog.

The conditions for felicitous deictic reference in space may depend on whether the addressee=s attention is already on the referent or not. Some languages even have a formal contrast that matches this distinction. Thus, in Yukatek, the regular demonstrative forms translating >this= and >that= are expanded by deictic place adverbs (>this here=, >that there=) when the addressee=s attention is not on the referent. It has been argued that what is traditionally considered the >mid-distal= demonstrative of Turkish really has a purely attention-calling function and contrasts with the proximal and distal forms only in this domain, not in terms of distance from speaker (Özyürek & Kita 2000). @Pointing gestures may support



attention direction, and in addition serve to narrow down the search domain. Moreover, in case more than one potential referent of the same kind occurs in the search domain selected by the deictic form, pointing gestures may be used to disambiguate the referent. There are, however, search domains which can be referred to without any additional gesture, since they are uniquely identifiable to the addressee. This is true of *here* when used to refer to the speaker=s location, and also of *there*, when used to designate the addressee=s location e.g. during a phone conversation (Fillmore 1997). The extent to which the use of spatial deictics requires accompanying gestures seems to vary both with the context of use and with the language-particular term. The attention-directing demonstrative of Turkish cannot be used without a gesture at all. In addition to pointing gestures, iconic and conventional gestures may occur with deictic terms, such as extending the hand, open palm facing up, with presentatives (*Voilà!*), or iconically indicating an extension in combination with *this big* or a manner of motion with *like this*. The relationship between such gestures and the linguistic reference act is different from the function of pointing gestures.

Directing the addressee=s attention to an object in space is subject to the perceptual accessibility of the object. Many languages exclude the use of certain demonstratives in reference to objects that are not visible, or provide special forms for this purpose. Yukatek has a presentative form for referents of which their is perceptual (e.g. acoustic), but not visual, evidence (Hanks 1990). In the Wakashan language Kwakwa=la of British Columbia, every noun phrase is marked for whether its referent is visible to the speaker or not (Boas 1947).

## **8. The genesis of deixis**

It has been argued that pointing gestures are a proto-form of reference, and that accordingly deixis should be the earliest form of verbal reference both in the phylogenetic rise of language in human pre-history (Rolfe 1989) and ontogenetically in child language acquisition (Clark 1978). Despite their plausibility, both proposals are met with a major difficulty: the perspectivizing effect of deixis requires highly non-trivial cognitive skills. Thus, there is no conclusive evidence that free-ranging primates use pointing communicatively, and it has been shown that chimpanzees in captivity produce what are commonly considered pointing gestures irrespective of whether they are seen by the addressee or not; in other words, they seem to lack awareness of the interlocutor's mental state of attention (Povinelli et al. 1997). Likewise, it is not the case that the first referring expressions acquired by children are deictics. The first deictic forms acquired by English-learning children are personal pronouns, and the adult-like use of these does not occur before the third year of life. Perspectivizing expressions such as *in front of* are consistently used non-deictically at first, and deictic usage does not come in until the fifth year (cf. Tanz 1980).

## **9. Conclusions**

Deictic reference plays a particularly important role in language: it serves to hook up @ linguistic representations to the world. Deictic expressions directly point the addressee's attention to a referent given in the situation in which the utterance is made, often in combination with gestures. By relativizing the utterance to the particular context in which a particular speaker uses them, they relativize the utterance to this speaker's perspective. The cognitive demands imposed on

language processing by this perspectivizing effect are in sharp contrast with the apparent semiotic primitiveness of deictic reference and with its pervasiveness in verbal communication.

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