

## 90. Deixis and demonstratives

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### Abstract

*This paper provides an overview of the form, meaning, and use of deictic expressions from a cross-linguistic point of view. The first part of the paper is concerned with the psychological foundations for a linguistic theory of deixis. It is argued that the use of deictic expressions presupposes a theory-of-mind that enables the communicative partners to adopt the perspective of another person. The second part of the paper provides an overview of deictic expressions in the world's languages. Two basic types of deixis are distinguished: participant deixis, which concerns the speech participants, and object deixis, which concerns elements of the situational and discourse context. The paper argues that person deictics are similar to anaphors and participant deictics, notably demonstratives, are used to establish joint attention, which is one of the most fundamental functions of human communication, providing a prerequisite for social interaction, cognition, and discourse.*

### 1. Introduction.

The term deixis refers to a class of linguistic expressions that are used to indicate elements of the situational and/or discourse context, including the speech participants and the time and location of the current speech event (cf. Bühler 1934; Frei 1944; Lyons 1977, 1979; Fillmore 1982, 1997; Levinson 1983, 2004). English has a wide variety of expressions that are commonly analyzed as deictics: personal pronouns such as *I* and *you*, spatial adverbs such as *here* and *there*, demonstratives such as *this* and *that*, temporal adverbs such as *now*, *then*, *today*, *ago*, and *recently*, motion verbs such as *come* and *go*, and tense morphemes such as the future auxiliary *will* and the past tense suffix *-ed* (cf. Lyons 1977; Fillmore 1997). In addition, grammatical constructions such as the imperative and the vocative are often characterized as deictics (cf. Levinson 1983).

Deictic expressions raise important issues for semantic theory (cf. article 4 (Abbott) *Reference*). In (formal) semantics, deictic expressions (also called *indexicals*; cf. Peirce 1955) are defined as linguistic signs with “direct reference” (Kaplan 1989: 483). In contrast to content words, deictic expressions do not evoke a concept of some entity (Frege’s *sense*) but establish a direct referential link between world and language (cf. article 61 (Schlenker) *Indexicality and de se*). Since the interpretation of deixis is immediately determined by aspects of the speech situation, deictic expressions require a particular treatment in semantic theory (cf. Kaplan 1989; see also papers in Davis 1991, vol. III and Kasher 1998, vol. III).

In the literature, deictic expressions are commonly distinguished from deictic uses (cf. Nunberg 1998; Levinson 2004). Deictic expressions are linguistic elements “with built-in

contextual parameters” that must be specified by aspects of the situational or discourse context (Levinson 2004: 14). Other linguistic elements can be used deictically if they are combined with a genuine deictic or some other referential means. For example, a noun such as *tree* may refer to a concrete entity in the situational context if it is accompanied by a demonstrative that relates the concept of tree to a concrete entity in the surrounding situation (cf. *that tree*). Alternatively, content words can be grounded in the speech situation by nonlinguistic means such as gesture, eye-gaze, or the presentation of an object. In general, as Levinson (2004) has pointed out, just about any nominal expression can be used deictically if it is accompanied by a communicative device that indicates a direct referential link between language and context.

This paper surveys the form, meaning, and use of deictic expressions from a psycholinguistic and cross-linguistic point of view. Two basic categories of deixis are distinguished: participant deixis and object deixis. Participant deixis concerns the role of the speech participants and their social relationship to each other, whereas object deixis concerns linguistic expressions referring to aspects of the situational or discourse context. The two types of deixis serve radically different functions and are expressed by different types of words; but they also have important properties in common which underlie their uniform classification as deictics.

## 2. Foundations of deixis.

There is a long tradition in western philosophy to define human cognition by formal operations over abstract symbols (cf. Montague 1974; see also article 10 (Newen & Schröder) *Logic and semantics* and article 11 (Kempson) *Formal semantics and representationalism*). However, recent work in cognitive psychology, philosophy, and linguistics has argued that this approach is not appropriate to characterize human cognition. Specifically, it has been claimed that cognitive processes are “embodied”, i.e., grounded in our bodily experience with the environment (see Wilson 2002 for a review; see also Steels 1999; Clark 1997; Barsalou 1999). In this view, the sensory and motor activities of the body are important determinants of human cognition, which in turn influences the structure and use of language (Lakoff & Johnson 1980, 1999).

There is perhaps no other linguistic phenomenon that is so fundamentally rooted in our bodily experience than deixis. In fact, one of the reasons why indexicals have been discussed extensively in both linguistics and philosophy is that they pose a serious challenge to semantic theories in which linguistic meaning is decontextualized and disembodied. Philosophers such as Russell and Reichenbach tried to reduce all indexical expressions to a single deictic term that can be translated into some context-free expression in an artificial language; but this account does not provide an adequate description of the use and meaning of deictic expressions. In natural language, deixis is fundamentally grounded in our bodily experience and situated interactions between the interlocutors. Thus, any account of natural deixis has to start from a pragmatic theory of language use and human cognition (cf. article 5 (Green) *Meaning in language use*).

### 2.1. Theory-of-mind.

Language use is a triadic behaviour involving the speaker, the hearer, and the entities talked about (cf. Bühler 1934). The triadic nature of language presupposes that the

interlocutors understand each other as “mental or intentional agents” (cf. Tomasello 1999). In order to communicate, speaker and hearer must realize that the communicative partner has mental representations and that she views the situation from a different perspective. In other words, language use presupposes a *theory-of-mind* that enables the language users to adopt the perspective of another person (cf. Tomasello 1999; Clark 1996). Interestingly, while other species may communicate in one way or another, it seems that human communication is the only form of communication that involves an understanding of the mind (cf. Butterworth 1998; Povinelli & Vonk 2003; Franco 2005; Tomasello 2006). As Tomasello (1999) and others have pointed out, the ability to adopt another person’s perspective is a unique trait of human cognition that is reflected in the structure and use of language.

## 2.2. The deictic centre.

A linguistic phenomenon that crucially relies on this ability is deixis. As Bühler (1934) and other theorists have pointed out, the use of deixis involves a particular viewpoint called the *deictic centre* or the *origo* (cf. Bühler 1934; Lyons 1977). The deictic centre is the centre of a coordinate system that underlies the conceptualization of the speech situation. In the unmarked case, the deictic centre is defined by the speaker’s location at the time of the utterance. Deictic expressions are used to indicate a location or point in time relative to the deictic centre. For instance, the spatial adverbs *here* and *there* can be used to express a contrast between two different locations based on their relationship to the origo: *here* marks the area that is conceptualized as the deictic centre, and *there* indicates a location that is not included in this area. In the literature, *here* and *there* are commonly characterized as proximal and distal deictics, but the attributes ‘proximal’ and ‘distal’ must not be taken in the absolute sense of these terms because the deictic centre and the speech situation are conceptual units that cannot be equated with the physical location in which the speech event occurs. Consider for instance the use of the spatial deictic *here* in examples (1a-e).

- (1) a. *Here* where I am  
 b. *Here* in this room  
 c. *Here* in Jena  
 d. *Here* in Germany  
 e. *Here* on this planet

What these examples illustrate is that the area included in the deictic centre (denoted by *here*) varies with the construal of the speech situation. In (1a), *here* refers to a location that is further specified by the pronoun *I*, indicating that the deictic centre is basically identical with the speaker’s body; but in all other examples the deictic centre includes a much larger area organized around the speaker’s location at the time of the utterance: In (1b) the deictic centre is the room in which the speech event is taking place, in (1c) it is the city of Jena, in (1d) it is a country, and in (1e) the deictic centre consists of the whole planet. In other words, the referent of *here* varies with the conceptualization of the speech situation. The distal term *there* is used in contrast to *here*; it can refer to any location in the speech situation as long as it is not included in the area conceptualized as the deictic centre. In general, *here* and *there*, and other proximal and distal deictics, do not express

absolute measures of distance, but differentiate between two different locations relative to the deictic centre within the current construal of the speech situation.

In conversations, the deictic centre is constantly changing between the communicative partners. Every time a new speaker adopts the turn, the speech event is conceptualized from a different point of view, which means that expressions such as *here* and *there* and *I* and *you* refer to different entities when used by different speakers. Adult speakers are so used to this procedure that they do not realize the constantly changing perspective that is involved in the use of deictic expressions; but children have great difficulties with the alternating point of view. Although English-speaking children begin to use deictic expressions very early, they often misinterpret their meaning and use (cf. Clark 1978; Tanz 1980; Wales 1986). For instance, it is well-known that some children begin to use the personal pronouns *I* and *you* as fixed expressions for the child and an adult speaker. Consider for instance the dialog in (2) between a two-year-old English-speaking boy and his mother (cf. Clark 1978: 101).

- (2) Mother: What do you want?  
 Child: Daddy toothbrush.  
 Mother: Oh you want Daddy's toothbrush, do you?  
 Child: Yes . . . *you* want to put the frog in the mug. [you = I]  
 Mother: I think the frog is too big for the mug.  
 Child: Yes *you* can put the duck in the mug [you = I]  
 make bubble . . . make bubble.  
 Mother: Tomorrow. Nearly all the water's run out.  
 Child: *You* want Mummy red toothbrush . . . yes [you = I]  
*you* can have Mummy old red toothbrush.

In this example, both the boy and his mother use the pronoun *you* with reference to the child, suggesting that the boy misinterprets the term as some sort of proper name. The same absolute use of personal pronouns has been observed in many other studies. Consider for instance the following example from a diary study adopted from Clark (1978: 101).

- (3) a. *I* carry. [= you carry; a request to be picked up]  
 b. Yacky tease *you*. [= Yacky is teasing me]  
 c. Papa help *you*. [= Papa help me]  
 d. *You* want cake. [= I want cake]

In these examples, the deictic pronouns *I* and *you* are used as fixed expressions for the child and one of his parents: the first person pronoun *I* refers to the parent, notably the father, and the second person pronoun *you* is used in self reference to the child.

### 2.3. The frame of reference.

The deictic centre constitutes the centre of a relative frame of reference, which must be distinguished from two other reference frames for spatial orientation: the intrinsic frame of reference and the absolute frame of reference (Levinson 1996, 2003; Miller & Johnson-Laird 1976; Pederson et al. 1998). Each frame evokes a coordinate system, but is

differently anchored in the speech situation. The relative frame of reference presupposes a viewpoint provided by the speaker or some other person; the intrinsic frame of reference involves an object-centred coordinate system determined by the inherent orientation of an object or person; and the absolute frame of reference is anchored by landmarks in the environment such as a mountain, a river, or the sun (see below).

While the conceptualizations of the three reference frames are in principle independent of language, they can be triggered by particular types of expressions. The relative frame of reference is commonly evoked by deictics such as *I* and *you* and *here* and *there* (cf. 4a-b); the intrinsic frame of reference is triggered by relational terms such as *in front of* and *behind* (cf. 5a-b); and the absolute frame of reference is established by expressions such as *uphill* and *downhill* or *east* and *west* that indicate a geographical location (cf. 6a-b).

- (4) a. Peter is over *there*.  
b. Can you show me *that*?
- (5) a. The ball is *in front of* the car.  
b. Peter stood on his uncle's *left* side.
- (6) a. The cottage is *uphill*.  
b. They were driving *west*.

Note that although the relative frame of reference provides the conceptual background for the interpretation of spatial deictics, it is in principle independent of the deictic center (cf. Levinson 1996). As can be seen in (7), the relative frame of reference also be construed from the perspective of a third person (expressed in the *for*-phrase).

- (7) For John, the ball is *in front of* the tree.

Interestingly, if we leave out *for John* the spatial arrangement is interpreted from the speaker's point of view, although the sentence does not include a deictic expression. Thus, while the relative frame of reference does not presuppose the use of deictics, it is construed from the speaker's point of view, i.e., the deictic centre, if there is no other point of reference, suggesting that the deictic centre provides the default viewpoint (or anchor) for this type of frame.

Like the relative frame of reference, the intrinsic frame of reference is derived from our bodily experience. It is based on the vertical and horizontal orientation of the human body, which is commonly expressed by relational terms such as *in front of* and *behind*, *left* and *right*, *up* and *down*, and *above* and *below*. Like deictic expressions, these expressions may involve the speaker's location at the time of the utterance (cf. 8a-c).

- (8) a. The ball *in front of* me  
b. The ball to my *left*  
c. I put the ball *down*.

In examples (8a-c), relational expressions are used to indicate the location of an object based on the speaker's orientation in the speech situation. Note that these examples

include a deictic expression referring to the speaker; but even if the utterance does not include a deictic term, relational expressions are commonly interpreted deictically, as in the following example in which *in front of* characterizes a location from the speaker's point of view, although the speaker is not mentioned in this sentence (Levinson 1996).

- (9) The ball is *in front of* the tree.

However, in contrast to deictics relational expressions are in principle independent of the speaker's point of view and the human body. As can be seen in (10a-c), *in front of*, *left*, and *down* may indicate the location of an entity based on the inherent orientation of an object such as *house*, *car*, or *table*.

- (10) a. A horse stood *in front of* the house.  
 b. Peter's seat is in the back, on the *left* side of the car.  
 c. The bottle fell *down* from the table.

What these examples show is that while relational expressions may involve the speaker's bodily orientation in the speech situation, their interpretation is not inherently tied to the speaker's body or location. That is, while relational expressions can be used deictically, they are distinct from genuine deictics in that they do not presuppose the deictic centre or the speaker's perspective (cf. Levinson 1996).

#### 2.4. Deictic projection.

Since the deictic centre is commonly defined by the speaker's location at the time of the utterance, deictic expressions are usually egocentric. However, the deictic centre can be transferred from the speaker to a person in an imaginary situation. This phenomenon, which Lyons (1977: 579) called "deictic projection" (cf. Jakobson 1957; Fillmore 1997), is characteristic of narratives and descriptions. In narratives the speaker creates a story world in which the protagonists provide the anchor for deictic expressions. This is particularly striking in the case of reported speech, in which deictic expressions are grounded by the person whose speech is reported; but the protagonists can also provide the anchor for deictic expressions in other contexts. For instance, if the story includes an I-narrator deictic expressions are commonly used within the narrator's coordinate system. For instance, the example in (11) is taken from a short story by Edgar Allen Poe, in which deictic expressions such as *I* and *there* do not refer to the author and entities in his surrounding situation, but to the I-narrator and elements in the universe of discourse.

- (11) The old man was dead. *I* removed the bed and examined the corpse. Yes, he was stone, stone dead. *I* placed *my* hand upon the heart and held it *there* many minutes. *There* was no pulsation. He was stone dead. His eye would trouble *me* no more.  
 [Edgar Allen Poe: The tell tale heart]

Interestingly, although deictic expressions presuppose a particular point of view, their occurrence does not entail the existence of a concrete person. As can be seen in the German example in (12) (adopted from Ullmer-Ehrich 1982: 233), spatial descriptions are often construed from the perspective of a fictive observer.

- (12) Ja eh wenn man zur Tür reinkommt, gleich rechts davon ist der Schreibtisch an der Wand, im Anschluss daran ist das Bett, und *dann* kommt schon die Ecke zum Fenster, und *da* ist zwischen Fenster und Wand *dieses* Bücherregal, und an der anderen Seite, ja *da* is nich mehr viel Platz, *da* schließt sich *da* die andere Längswand an, *da* hab ich die Schlafcouch stehen, zwischen Schlafcouch und Bücherregal den Esstisch, an die Schlafcouch ran *kommt* der Kleiderschrank, neben m Kleiderschrank steht der Kühlschrank, und *dann* inner Ecke kommt das Waschbecken.

Well, er as you enter the door, immediately to the right of it is the desk against the wall, connected to it is the bed and *then* comes the corner going up to the window, and *there* between the window and the wall is *this* bookshelf, and on the other side, um, *there* isn't much space left, *there* I have the couch bed, between couch bed and bookshelf the dining table, by the sleeping couch *comes* the wardrobe, beside the wardrobe is the refrigerator, and *then* in the corner is the wash basin.

In this example, the speaker takes the hearer on an “imaginary gaze tour” through his student bedroom (Ullmer-Ehrich 1982: 241). In order to orient the hearer on this tour, the speaker uses various deictic expressions that are grounded by a fictive observer who describes the room as if individual pieces of furniture come in turn into view (cf. Linde & Labov 1975; Levelt 1989; Taylor & Tversky 1996).

## 2.5. Deictic categories.

Deictic expressions are commonly divided into semantic categories; three categories are traditionally distinguished: person, place, and time (cf. Bühler 1934). In English, each category is associated with particular deictic expressions: *I* and *you* are person deictics, *here* and *there* and *this* and *that* are place deictic expressions, and *now* and *then*, and *today*, *yesterday* and *tomorrow* are temporal deictics. In addition to person, place and time, some studies assume two further deictic categories: discourse deixis and social deixis (cf. Lyons 1977; Levinson 1983, 2004; Fillmore 1997). Discourse deixis is concerned with expressions making reference to linguistic entities in the ongoing discourse, and social deixis is concerned with the social relationship between the interlocutors. Like person, place and time deixis, discourse deixis and social deixis may be expressed by particular terms. For instance, the English expressions *the latter* and *the aforementioned* are discourse deictics, and the French pronouns *tu* ‘you.familiar’ and *vous* ‘you.unfamiliar’ are instances of social deixis. Tab. 90.1 provides an overview of the deictic categories that are commonly distinguished in descriptive approaches to deixis (e.g., Levinson 1983, 2004; Fillmore 1997).

Tab. 90.1: Deictic categories

Category	Example
Person deixis	<i>I, you</i>
Place deixis	<i>here, there, this, that</i>
Time deixis	<i>now, then, today, yesterday, tomorrow</i>
Discourse deixis	<i>the latter, the aforementioned</i>
Social deixis	<i>tu, vous</i> [French]

While the traditional classification of deictic categories highlights important semantic distinctions, it ignores differences in their pragmatic use. If we consider the various deictic expressions from the perspective of their communicative function, they can be divided into two basic types: Participant deixis and object deixis. Participant deixis concerns deictic phenomena related to the speech participants, whereas object deixis concerns deictic phenomena that involve a referential link to elements of the situational or discourse context. The two types of deixis serve different communicative functions and are encoded by different types of expressions.

### 3. Participant deixis.

Participant deixis subsumes the traditional categories of person and social deixis. In the literature, it is commonly assumed that person deictics function to identify the speech participants, but this assumption is not consistent with their use. Since speaker and hearer are usually aware of their communicative roles, person deictics are only rarely used to “identify” the speech participants in the surrounding situation (e.g., *I want to talk to you* [pointing to a person]); instead, they usually function to indicate the semantic roles of speaker and hearer in the event that is expressed by an utterance (e.g., *Peter noticed that I gave you the book*). Since the speech participants are aware of each other, the use of person deictics is similar to the use of anaphors: Both types of expressions function to denote a ‘familiar’ or ‘activated’ referent, i.e., a referent that is in the interlocutors’ current focus of attention. The communicative function of participant deictics is reflected in the semantic features they encode. Four features are important:

1. Communicative role
2. Number
3. Gender
4. Social rank/relationship

All languages have particular expressions referring to speaker and addressee, but these expressions are not always deictic. In many South-east Asian languages, the speech participants are expressed by common nouns (Cooke 1968). For instance, in Thai (Tibeto-Burman, Thailand) speaker and hearer are referred to by various nominal expressions such as *phom* ‘I’ (lit. hair) and *tua* ‘you’ (lit. body/self), which are also used with their literal meaning (cf. Siewierska 2004: 228). However, the vast majority of the world’s languages have deictic pronouns such as English *I* and *you* to indicate the communicative roles of the speech participants. In many languages, the speech participants are commonly expressed by bound morphemes on the verb (cf. Siewierska 2004: Ch. 2), leaving the use of independent pronouns to situations in which the referent is especially emphasized (cf. example 13).

- (13) *wa-yi-ku:-wa*  
 1SG-2SG-give-REALIS  
 ‘I give (it) to you’

In addition to the communicative role, number is a frequent feature of participant deixis. In a world wide sample of 260 languages, Dunn (2005) found only two languages, Acoma

(Keresan, New Mexico) and Wari' (Chapacura-Wanhan, Brasil), in which first and second person pronouns do not have separate singular and plural forms; that is, the vast majority of the world's languages distinguish between *I* and *we* and *you.SG* and *you.PL* (English is unusual in this regard) (cf. Cysouw 2003; Siewierska 2004).

Note, however, that the plural of first person is conceptually distinct from the plural of other (pro)nominal expressions in that *we* does not denote multiple instances of *I* (cf. Cysouw 2003: Ch. 3). Rather, the plural of a first person pronoun refers to a group of people including the current speaker. Two basic types of first person plural pronouns can be distinguished: Inclusive pronouns, referring to a group of people including both speaker and hearer, and exclusive pronouns, referring to a group of people including only the speaker, i.e., excluding the addressee. For instance, as can be seen in Tab. 90.2, Chamorro (Austronesian, Guam) has three first person pronouns: *hu* meaning 'I', *ta* meaning 'I and you and possibly some others', and *in* meaning 'I and somebody else but not you'. While the inclusive-exclusive distinction is very rare in Europe, it is a very frequent feature of participant deixis in other parts of the world (cf. Cysouw 2003).

Tab. 90.2: First person pronouns in Chamorro (Topping 1973: 106–108)

<i>Meaning</i>	<i>Form</i>
'I'	hu
'we' inclusive	ta
'we' exclusive	in

Another semantic feature that may be expressed by person deictics is gender. However, compared to number, gender is an infrequent feature of person deixis. In a world wide sample of 378 languages, Siewierska (2004) found only 21 languages in which first and/or second person pronouns carry a gender feature. Moreover, in most of these languages gender marking is limited to the singular; in the plural, first and second person pronouns are almost always unmarked. Tab. 90.3 shows the personal pronouns in Ngala (Sepik, New Guinea), which is one of the few languages in Siewierska's sample in which both first and second person pronouns carry a gender feature, but only in the singular, i.e., in the dual and plural first and second person pronouns are unmarked.

Tab. 90.3: Personal pronouns in Ngala (Laycock 1965: 133)

	<i>Singular</i>		<i>Dual</i>	<i>Plural</i>
	<i>Masculine</i>	<i>Feminine</i>		
1. person	wn	ñən	öyn	nan
2. person	mən	yn	bən	gwn

In contrast to first and second person pronouns, third person pronouns are often gender-marked. In Siewierska's sample, gender marking in third person pronouns is about five times as frequent as gender marking in first and second person pronouns, suggesting that gender carries a greater functional load in third person anaphors than in participant deictics. While gender marking can help to differentiate between multiple antecedents of third person pronouns, it is irrelevant for the identification of the speech participants

because speaker and hearer are sufficiently determined by the communicative interaction (cf. Siewierska 2004: 105).

Unlike gender marking, the marking of social relationships is very common in participant deictics, notably in expressions for the addressee. Many European languages employ two types of second person pronouns to indicate the social relationship between the speech participants. For instance, in German *du* is used to address family members, friends, and young children, whereas *Sie* refers to strangers and people in professional relationships. A parallel contrast between familiar and respectful forms occurs in other European languages including French and Russian (cf. Tab. 90.4).

Tab. 90.4: Familiar and polite second person pronouns in three European languages

<i>Language</i>	<i>Familiar form</i>	<i>Polite / respectful form</i>
German	du	Sie
French	tu	vous
Russian	ty	vy

In German, French, and Russian, the polite forms are based on plural pronouns, but social deixis can also be expressed by special honorifics derived from common nouns such as ‘master’, ‘servant’, and ‘king’ (Siewierska 2004: Ch. 6). The use of (nominal) honorifics is characteristic of South-east Asian languages such as Thai and Vietnamese, which seem to lack genuine participant deictics (Cysouw 2003: 12–13; Siewierska 2004: 8–15).

## 4. Object deixis.

Object deixis subsumes the deictic categories of place, time, and discourse. Place deictic expressions refer to concrete objects and locations in the situation surrounding the speech participants, but time and discourse deixis are more elusive. Time deictic expressions indicate a point in time relative to the moment of the speech event, and discourse deictic expressions locate linguistic elements in the ongoing discourse. Since time and discourse are abstract entities they are not immediately available for a concrete act of reference such as pointing. However, in language time and discourse are commonly conceptualized in spatial terms making them more objective (see below). This explains why time and discourse deixis are frequently expressed by spatial terms, suggesting that place deixis provides the conceptual and linguistic foundation for more abstract varieties of object deixis (cf. Lyons 1977: 718).

### 4.1. Place deixis.

The core of place deixis constitutes a small class of expressions that are of fundamental significance to the organization of the deictic system: demonstratives such as English *this* and *that* and *here* and *there* (cf. Himmelmann 1997; Diessel 1999; Dixon 2003; see also article 40 (Büring) *Pronouns*). In the literature, demonstratives are commonly described as one type of place deixis, serving grammatical functions as pronouns, determiners, and adverbs; but this analysis does not adequately characterize their function and status in language (cf. Diessel 2006a).

#### 4.1.1. The communicative function of demonstratives.

In their basic use, demonstratives focus the interlocutors' attention on concrete entities in the surrounding situation; that is, demonstratives serve to establish joint attention, which is one of the most fundamental functions of human communication, providing a foundation for the organization of verbal interactions, the structuring of discourse, and the diachronic evolution of grammar (cf. Diessel 2006a).

Joint attention has been studied in interdisciplinary research on pointing, eye gaze, and theory-of-mind (for a review see Dunham & Moore 1995; Krause 1997; Eilan 2005); it involves three basic components: the speaker, the hearer, and the entities talked about (see above). Communication is thus a triadic behaviour in which the communicative partners are jointly focused on the same referent. In face-to-face conversations, the speaker can use eye gaze and pointing in addition to language to establish a joint focus of attention (cf. Bruner 1983; Carpenter et al. 1998; Tomasello 1999; Eilan 2005). While there are many linguistic means to create joint attention, demonstratives provide the primary linguistic device to manipulate the interlocutors' attention in the speech situation (cf. Clark 1996). The particular communicative function of demonstratives is reflected in a number of properties that characterize them as a particular word class (cf. Diessel 2006a).

To begin with, one of the most striking features of demonstratives is that they are commonly accompanied by a pointing gesture (cf. Bühler 1934; Enfield 2003; Levinson 2004; Diessel 2006a). Deictic pointing is a communicative device that is used in all cultures to establish joint attention (cf. Kita 2003); it usually involves the index finger, but there are also cultures in which lip pointing is used to direct the other person's attention (cf. Enfield 2002; Wilkins 2003). The frequent cooccurrence of demonstratives and deictic pointing supports the hypothesis that demonstratives function to establish joint attention, which is crucially distinct from the communicative function of person deixis. First and second person pronouns refer to the speech participants, which are automatically activated as part of the speech event, whereas demonstratives create a new focus of attention or else indicate a contrast between two previously established referents (cf. Levinson 2004; Diessel 2006a).

The frequent combination of demonstratives and deictic pointing is especially striking in early child language (cf. Clark 1978). When children begin to produce their first words, at around the age of 15 months, they typically use content words referring to persons, objects, and other entities in their environment (cf. Gentner 1982); but in addition to these words demonstratives are always among the first and most frequent expressions in early child language (cf. Clark 1978; Diessel 2006a). The early appearance of demonstratives is motivated by their communicative function to establish joint attention and their relationship to deictic pointing. The earliest pointing gestures children produce appear a few months prior to the onset of language and can be seen as a sign of the child's emerging ability to engage in triadic interactions, providing a prerequisite for the development of communication and language (cf. Tomasello 1999, 2003, 2006; Franco 2005).

The communicative importance of demonstratives is also reflected in their cross-linguistic distribution. Early work in linguistic typology was based on the assumption that grammatical categories are universal; but more recent work suggests that most linguistic categories have language-specific properties and are often restricted to a subset of the world's languages (cf. Croft 2001). For instance, while definite articles and auxiliaries are commonly found in Indo-European languages, they are often absent from languages in

other genetic groups. However, in contrast to definite articles, auxiliaries, and other function morphemes, demonstratives are truly universal (cf. Himmelmann 1997; Diessel 1999, 2003, 2006a, 2006b; Dixon 2003).

What is more, demonstratives appear to be older than other closed-class items. In the literature, linguistic expressions are commonly divided into two basic types: content words and grammatical markers. Recent work in grammaticalization has shown that grammatical markers are frequently derived from content words. For instance, locational prepositions such as English *in front of* develop from relational nouns (or body part terms), and future tense auxiliaries such as English *going to* are often derived from motion verbs (cf. Hopper & Traugott 2003). The development of grammatical markers from content words is cross-linguistically so frequent that it has become a standard assumption of grammaticalization theory that all grammatical expressions are eventually derived from content words (cf. Hopper & Traugott 2003: 104). According to this view, demonstratives are function words, i.e., grammatical markers, that must have originated from a lexical source, i.e., from nouns or verbs. However, in sharp contrast to other closed-class expressions, there is no evidence that demonstratives are historically derived from lexical terms, suggesting that demonstratives may be older than other closed-class items. If we consider the particular function of demonstratives to establish joint attention, it seems reasonable to assume that demonstratives may have emerged very early in the evolution of human language and independently of other linguistic terms (cf. Diessel 2006a).

#### 4.1.2. The form and meaning of demonstratives.

While demonstratives are universal, they can differ widely in terms of their form, meaning, and use (cf. Diessel 1999; Dixon 2003). The semantic features of demonstratives are divided into two basic types: (1) deictic features, which indicate the location of the referent relative to the deictic centre, and (2) non-deictic features, which characterize the type of referent (cf. Diessel 1999: Ch. 3; see also Fillmore 1982; Rauh 1983; Hanks 1990).

The deictic features of demonstratives are commonly characterized in spatial terms based on their relationship to the deictic centre. As can be seen in (14), if *this* and *that* are used contrastively, *this* denotes a referent that is closer to the deictic centre than the referent of *that*; that is, *this* is proximal and *that* is distal.

(14) *This* one (here) is bigger than *that* one (over there).

However, in non-contrastive situations *this* and *that* are often interchangeable (cf. 15), suggesting that they do not carry an inherent distance feature.

(15) I like *this/that* one better.

Considering the various uses of demonstratives in English, Levinson (2004) argues that while *this* always expresses some sense of proximity, *that* is only interpreted as a distal term if it is used in explicit contrast to *this*; that is, *that* is semantically unmarked for distance but is interpreted as a distal term by pragmatic contrast via Grice's maxim of quantity ('Be as informative as circumstances permit'). Thus, Levinson concludes that the traditional analysis of demonstratives in terms of spatial features (i.e., proximal vs. distal) is not always adequate to characterize their meaning and use (cf. Enfield 2002).

However, while demonstratives do not generally indicate a contrast between proximal and distal referents, they are usually organized in paradigms of contrastive forms. English has a two-way deictic system, contrasting proximal and distal referents (in some uses); but many languages employ more than two deictic terms (cf. Diessel 2005a; see also Anderson & Keenan 1985 and Diessel 1999). For instance, as can be seen in Tab. 90.5, Irish (Celtic, Europe) has three demonstratives indicating three different locations on a distance scale: proximal, medial, and distal.

Tab. 90.5: Demonstratives in Irish (Bammesberger 1983: 60–61)

Proximal	<i>seo</i>
Medial	<i>sin</i>
Distal	<i>siúd</i>

In some languages the medial term is reserved for entities near the hearer. For instance, as can be seen in Tab. 90.6, in Japanese demonstratives differentiate between entities near the speaker, entities near the hearer, and entities away from both speaker and hearer.

Tab. 90.6: Demonstratives in Japanese (Kuno 1973)

	<i>Pronouns</i>	<i>Determiners</i>	<i>Adverbs</i>
Near speaker	kore	kono	koko
Near hearer	sore	sono	soko
Away from speaker and hearer	are	ano	asoko

Note that Japanese employs three different sets of demonstratives functioning as pronouns, determiners, and adverbs, which many languages do not formally distinguish; in particular the contrast between demonstrative pronouns and determiners is often formally unmarked (Diessel 2005b). But even if the demonstratives are divided into separate syntactic classes, as in Japanese, they tend to carry the same deictic features because they usually include the same deictic roots (cf. Diessel 1999: Ch. 2).

While two- and three-term systems are cross-linguistically very common, there are also languages with more than three deictic terms. In a world-wide sample of 234 languages, Diessel (2005a) found 127 languages with two deictic terms, 88 languages with three deictic terms, and 12 languages with more than three deictic terms (in addition, there were 7 languages in which some demonstratives are deictically not contrastive; cf. Diessel 1999: 37–39). If we look at the languages with more than three deictic terms, we find that they typically include a particular expression for objects and locations near the hearer (cf. the demonstratives in Tab. 90.7 from Hausa (Chadic, Africa)).

Tab. 90.7: Demonstratives in Hausa (Wolff 1993: 119–120)

Near speaker	nân
Near hearer	nan
Away from speaker and hearer	cân
Far away from speaker and hearer	can

Interestingly, in languages of this type there are two different ways of conceptualizing the deictic centre (see Fig. 90.1 below). Demonstratives such as Hausa *nân* ‘near speaker’ and *nan* ‘near hearer’ are interpreted relative to the area determined by the speaker’s location alone, i.e., these two expressions exclude the hearer from the deictic centre (cf. deictic centre 1); whereas the two distal terms, *cân* and *can*, are interpreted relative to the common domain of the speech participants, i.e., in this case both speaker and hearer are included in the deictic centre (cf. deictic centre 2).

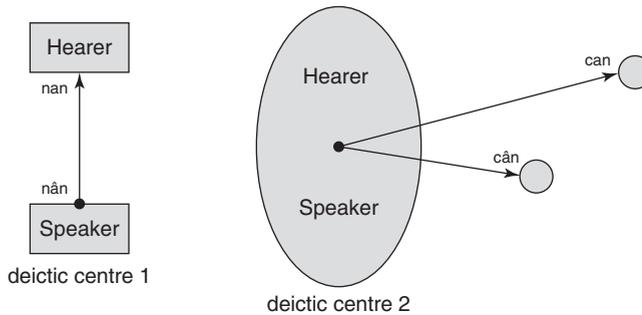


Fig. 90.1: The conceptualization of the deictic centre

Since the deictic centre of the distal terms is conceptualized as the common domain of the speech participants, the interpretation of these terms involves maximally three different entities: the deictic centre, consisting of the common domain of the speech participants, and two other entities that are ‘away’ and ‘far away’ from the deictic centre. Thus, although languages with a hearer-based demonstrative may employ four (or more) deictic terms, conceptually they are usually limited to spatial scenarios with maximally three distinct reference points (cf. Diessel 2005a).

In addition to distance, demonstratives may indicate whether the referent is visible or out-of-sight, at a higher or lower elevation, uphill or downhill, upriver or downriver, or in a particular direction along the coast line (see Diessel 1999: 41–47). While these features are not inherently deictic (cf. Fillmore 1982: 51), they are often expressed by particular demonstratives that are part of the deictic system. For instance, many Native American languages have a particular demonstrative for an invisible referent, i.e., a referent out of sight. As can be seen in Tab. 90.8, Tümpisa Shoshone (Uto-Aztecan, North America) has four demonstrative roots that differentiate between three (visible) entities in the surrounding situation and a fourth entity that is invisible from the speaker’s point of view.

Tab. 90.8: Demonstrative roots in Tümpisa Shoshone (Dayley 1989)

Right here	i-
Here nearby	e-
There (visible)	a-
There (not visible)	u-

Similarly, semantic features such as ‘uphill’ and ‘downhill’ are commonly expressed by particular demonstrative forms. For instance, as can be seen in Tab. 90.9, Usan (Sepik, New Guinea) has four demonstratives locating a referent in the surrounding situation;

two of them express the usual contrast between proximal and distal referents whereas the two other terms indicate whether the referent is above or below the deictic centre (see Diessel 1999: 41–47 for a survey of these features).

Tab. 90.9: Demonstrative roots in Usan (Reesink 1987)

Here	i-
There (vertical)	e-
Up there (horizontal)	a-
Down there (horizontal)	u-

Turning to the non-deictic features of demonstratives, we may distinguish four different categories (cf. Diessel 1999: 47–52):

1. Ontology
2. Number
3. Gender
4. Boundedness

The most frequent non-deictic feature is ontology indicating the type of referent. This feature is well-known from Indo-European languages, where demonstratives such as English *here* and *there* are used with reference to locations, whereas *this* and *that* refer to other types of entities. The semantic contrast between *here/there* and *this/that* corresponds with their syntactic functions: While *here* and *there* are commonly used as adverbs, *this* and *that* function as pronouns and determiners. Note however that demonstrative adverbs are also commonly used as noun modifiers, as for instance in English *this book here* (cf. French: *ce livre-ci*; German: *das Buch hier*; Swedish: *det här huset*), suggesting that the semantic contrast between locations and other entities is in principle independent of the syntactic contrast between adverbs and pronouns (or determiners) (cf. Diessel 2006a).

Apart from ‘ontology’, ‘number’ is a frequent feature of demonstratives. In a world-wide sample of 85 languages, Diessel (1999) found 64 languages in which demonstratives mark the contrast between singular and plural referents. However, the occurrence of number in demonstratives varies with their syntactic function: Demonstrative pronouns are more often marked for number than demonstrative determiners, which in turn are more often number-marked than demonstrative adverbs.

The two other features, gender and boundedness, occur only in a minority of the world’s languages (cf. Diessel 1999: 48–49). Gender, and the related features of animacy and humanness, are commonly found in languages that lack a particular class of third person pronouns so that unstressed demonstrative pronouns are commonly used as anaphors (cf. Siewierska 2004). Boundedness is a central feature of the deictic system in Inuktitut (Eskimo, North America), in which demonstratives indicate whether the referent is conceptualized as a “restricted” or “extended” entity (cf. Denny 1982).

#### 4.1.3. Place deixis and motion.

The demonstratives considered thus far give rise to a stationary construal of the speech situation; but demonstratives can also evoke a dynamic scenario involving direction and

movement. For instance, Nunggubuyu (Gunwingguan, Australia) has three kinetic suffixes that are combined with demonstrative roots to indicate whether the referent is moving (1) toward the deictic centre, (2) away from the deictic centre, or (3) across the speaker's line of vision (cf. Tab. 90.10).

Tab. 90.10: Kinetic demonstratives in Nunggubuyu (Heath 1980: 152)

<i>Form</i>	<i>Gloss</i>	<i>Translation</i>
yuwa: - gi: - 'la	<i>that</i> - NounClass - toward speaker	'There he/she comes'
yuwa: - gi: - 'li	<i>that</i> - NounClass - away from speaker <i>that</i> -	'There he/she goes away'
yuwa: -gi: - yaj	NounClass - across field of vision	'There he/she goes across'

The Nunggubuyu demonstratives resemble the English demonstratives *hither* and *thither* in that they indicate direction to or towards a place. Very often, demonstratives of this type are combined with motion verbs, as in the following examples from German.

- (16) a. *hin-/her-kommen* 'to come hither/thither'  
 b. *hin-/her-fahren* 'to go by vehicle hither/thither'  
 c. *hin-/her-laufen* 'to run hither/thither'  
 d. *hin-/her-kriechen* 'to crawl hither/thither'  
 e. *hin-/her-schwimmen* 'to swim hither/thither'

The verbs in (16a-e) are prefixed by two deictic preverbs, *hin* 'hither' and *her* 'thither', which occur with a large number of verbs expressing physical motion or metaphorically related activities (e.g., *hin/her-hören* 'to listen hither/thither'). The deictic preverbs are historically derived from the demonstrative root *hi*, which is also preserved in *hier* 'here' and *heute* 'today' (cf. Lockwood 1968: 36, 72). Interestingly, although motion verbs are often combined with directional demonstratives, some motion verbs do not need demonstratives to indicate direction towards the speaker because their interpretation involves the deictic centre by default. For instance, although the sentences in (17a-b) do not include a deictic expression, the verb *come* is interpreted deictically. With no further information given, *come* denotes a motion event directed towards the speaker's location, i.e., the deictic centre (cf. Fillmore 1997).

- (17) a. Peter is coming.  
 b. Come in!

Apart from *come*, there are several other verbs that have been analyzed as deictic motion verbs in English: *go*, *bring*, *take*, *leave*, *depart*, and a few others (cf. Talmy 2000). Note, however, that all of these verbs can also be used non-deictically. For instance, in examples (18a-b) *come* and *go* describe motion events between two lexically specified locations.

- (18) a. Peter came from Berlin to John's party.  
 b. Peter went from Jena to Weimar.

Since the interpretation of these sentences does not involve the speaker's location at the time of the utterance, *come* and *go* are non-deictic in these examples. In general, although motion verbs may have a deictic interpretation, they are different from demonstratives and other deictics in that they do not presuppose the deictic centre as a particular point of reference. Moreover, the deictic interpretation of demonstratives and motion verbs is based on different psychological mechanisms. Demonstratives are interpreted as deictics because they function to establish joint attention, which presupposes the speaker's body or location. In order to establish joint attention, the speaker indicates the direction of the referent from his point of view, i.e., the deictic centre. However, deictic motion verbs do not establish joint attention; rather, they denote a directed motion event between two locations. Since the speaker's location is a prominent reference point in the communicative interaction, it is often interpreted as the default endpoint or beginning of a motion event. But motion verbs do not generally involve the deictic centre as a designated endpoint or beginning, suggesting that verbs such as *come* and *go* are not genuine deictics. In other words, the interpretation of motion verbs is distinct from the interpretation of genuine deictics such as demonstratives, which always involve the deictic centre, while motion verbs are only deictic by default, i.e., if no other reference point is specified.

#### 4.2. Time deixis.

The deictic treatment of time is based on the time-as-space metaphor (Lakoff & Johnson 1980; Radden 2004; see also article 27 (Talmy) *Cognitive Semantics*). Since time is not directly amenable to experience, it is a more elusive concept than space. However, in language time is commonly objectified by the metaphorical structuring of time in terms of spatial concepts (cf. Lakoff & Johnson 1980; Lakoff 1993; Evans 2004). The conceptual relationship between space and time is reflected in the frequent development of temporal expressions from spatial terms. For instance, temporal adpositions such as *in* and *before* are commonly derived from body part terms (cf. Heine, Claudi & Hünemeyer 1993), and temporal adverbs such as *then* are often based on spatial deictics (see below).

Spatial orientation involves three-dimensions: the front-back axis, the up-down axis, and the left-right axis; but the spatial interpretation of time is uni-dimensional. More precisely, time is commonly conceptualized as a straight line providing the conceptual ground for a fictive observer. There are two variants of the time-as-space metaphor, the ego-moving metaphor and the time-moving metaphor (cf. Lakoff 1993; Boroditsky 2002). In the ego-moving metaphor, the observer is moving along the time line into the future (e.g., *We are approaching Eastern*), whereas in the time-moving metaphor moving events on the time line are passing a stationary observer (e.g., *His birthday is coming up soon*). Since motion is commonly directed to the front, the conceptualization of the time line is usually based on the front-back axis of spatial orientation, but it may also involve the vertical dimension (cf. Radden 2004). For instance, in Chinese temporal expressions are commonly characterized based on the up-down axis: earlier times are up (e.g., *shang.ban.tian* [lit. upper.half.day] 'morning') and later times are down (e.g., *xia.ban.tian* [lit. lower.half.day] 'afternoon') (Yu 1998: 110) (for a recent study of the time-as-space metaphor in sentence processing see Ulrich & Maienborn 2010).

The time line is divided into three domains: present, past, and future. The present is conceptualized as the deictic centre, which in English is commonly referred to by *now*.

Like the deictic centre of place, the deictic centre of time varies with the conceptualization of the speech situation: *Now* may refer to the very moment of the speech event, but may also refer to a larger time period that includes the time of the current speech event (e.g., *Peter is now thirty years old*). The deictic centre is distinguished from the time conceptualized as past and future, for which English has a variety of deictic expressions: *Then* can be used with reference to both past and future time (cf. 19a-b), but other time deictic expressions such as *soon* and *ago* refer only into one direction along the time line; that is, they are exclusively used with reference to the past or future (cf. 19c-d).

- (19) a. I was still in school *then*. [past]  
 b. I'll be ready *then*. [future]  
 c. I'll be there *soon*. [future]  
 d. Ten years *ago* I was a graduate student. [past]

Time deixis often interacts with measures for time periods such as day, week, months, or year (cf. Levinson 1983: 73–76). In English, the two concepts, i.e., deixis and time measurement, are jointly expressed in complex NPs consisting of a demonstrative (or a sequential adjective) and a noun (e.g., *this week*; *next week*); but the combination of time deixis and time measurement can also be lexicalized, as in the temporal adverbs *today*, *yesterday*, and *tomorrow*, which indicate both a point in time, relative to the deictic centre, and a time unit, i.e., a day.

English has a variety of genuine time deictic expressions, but time deixis can also be expressed by demonstratives that are imported into the temporal domain. Anderson & Keenan (1985: 297–298) discuss examples from several languages in which time deictic expressions such as *now* and *then* are realized by demonstratives as in the following examples from German (Indo-European, Europe) and Urubu-Kaapor (Tupi-Guarani, South America), in which the spatial deictics *da* ‘there’ and *pe* ‘there’ occur with temporal reference.

- (20) German  
*Da* war ich ganz unglücklich.  
 There/then was I totally unhappy  
 ‘Then (at that time) I was totally unhappy.’

- (21) Urubu-Kaapor (Kakumasu 1986: 384)  
*Pe* ih? koty jangwate keruh u-jan u-wyr  
 DEM me towards jaguar very.big 3.run 3.come  
 ‘Then the great jaguar came running towards me.’

What is more, temporal deictics are often diachronically derived from demonstratives as for instance English *then*, which evolved from a deictic root with spatial meaning. Similar developments have been found in many other languages across the world. For instance, in Ainu (Isolate, Japan) temporal deictics such as *tap/tane* ‘now’ and *tanpa* ‘this year’ include the deictic root *ta* ‘this/here’ (Refsing 1986), which also functions as a demonstrative; and in Nama (Khoisan, South Africa) the formation of temporal deictics such as *nee-tse* ‘today’ and *||nāā-tse* ‘on that day’ is based on the demonstratives *nee* ‘this’ and *||nāā* ‘that’

(Hagman 1977). Tab. 90.11 shows another example from Mokilese (Austronesian, Pacific), in which nouns for time measurement are combined with the demonstrative suffixes *-e* ‘this (near speaker)’, *-oawe* ‘that (near addressee)’, and *-o* ‘that (away from speaker and hearer)’ if they are used deictically.

Tab. 90.11: Time deictic expressions in Mokilese (Harrison 1976)

<i>Word</i>	<i>Gloss</i>	<i>Translation</i>
wihkk- <i>e</i> lakapw	week-FUTURE tomorrow	Next week
wihkk- <i>oawe</i>	week-PRESENT	This week
wihkk- <i>o</i> aio	week-PAST yesterday	Last week

In general, since time is commonly conceptualized as motion in space, spatial deictics can function to ‘locate’ an event on the time line relative to the moment of the speech event, i.e., the deictic centre. This explains why time deictic expressions are often realized by spatial terms, notably by demonstratives, which historically may develop into time deictics. However, although time deixis is commonly conceptualized in spatial terms, it remains an abstract concept, which is reflected in the fact that demonstratives usually lose some of their deictic force when they are imported into the temporal domain.

#### 4.3. Discourse deixis.

Like time deixis, discourse deixis is based on the metaphorical structuring of time as space. Discourse consists of words and utterances that are processed in sequential order, that is, one element at a time. The sequential ordering of discourse elements is commonly conceptualized as a string of linguistic entities, to which speakers may refer in the same way as they refer to temporal entities on the time line. Both time deixis and discourse deixis involve a band of successive elements that is divided into separate areas by the deictic centre. However, while the deictic centre of time deixis is defined as the time including the moment of utterance, the deictic centre of discourse deixis is defined by the location of a deictic word in the ongoing discourse, from where the interlocutors’ attention is directed to linguistic elements along the string of words and utterances. Bühler (1934) described this as follows:

If discourse deictic expressions could speak, “they would speak as follows: look ahead or back along the band of the present utterance. There something will be found that actually belongs here, where I am, so that it can be connected with what now follows. Or the other way round: what comes after me belongs there, it was only displaced from that position for relief.” [Bühler 1934: 390]

Discourse deixis can be realized by a variety of expressions. English has a few linguistic terms that may be analyzed as genuine discourse deictics (e.g., *the aforementioned*, *the latter*); but more frequently discourse deixis involves deictic expressions from other conceptual domains. For instance, sequential adjectives such as *last* and *next*, which are commonly used as time deictic expressions, may be used with reference to linguistic elements in the ongoing discourse (cf. 22a-b).

- (22) a. the last paragraph  
b. the next chapter

The most frequent discourse deictic expressions are borrowed from the spatial domain. Across languages, demonstratives are used as discourse deictics, as in the following example from English.

- (23) I was really interested particularly because he was saying that a lot of the leaning was going to be towards choreography and *that* was my particular interest. I really didn't like technique. I mean I'm too lazy really for *that*, I think, and that was my interest in it. *That's* how I sort of got started in it. (International Corpus of English)

Example (23) includes four tokens of the distal demonstrative *that* referring to a previous chunk of discourse. Like *that*, the proximal demonstrative *this* can be used with reference to linguistic elements; but interestingly while *that* may only refer to previous discourse units *this* can also function as a cataphor announcing a following piece of discourse, as in example (24).

- (24) I forgot to tell you *this* (\**that*). Uhm Matt Street phoned while I was out. (International Corpus of English)

Note that the demonstratives in (23) and (24) refer to propositions (or speech acts); whereas the demonstrative in (25) indicates a link between two discourse participant. In this example, the demonstrative *this* accompanies a noun (plus adjective), which together resume the referent of a prior NP.

- (25) I had sardines once with a fly on it. I was just about to tuck into it and I noticed *this* great fly soaked in tomato sauce. (International Corpus of English)

If demonstratives refer to propositions, as in (23) and (24), they indicate a link between two states of affairs; but if they refer to an NP, as in (25), they continue a prior discourse participant (cf. Himmelmann 1996; Diessel 1999: Ch. 4). In the latter use, demonstratives are similar to third person pronouns in that both types of expressions track a previous discourse participant; they occur, however, in different contexts. Consider for instance the following example from German, contrasting the third person pronoun *er* 'he' with the anaphoric use of the demonstrative *der* 'this/that' (cf. Diessel 1999: 96)

- (26) Peter bemerkte einen Polizisten. Als er/der ...  
Peter noticed a police officer when he/that one  
'Peter noticed a police officer. When he ...'

Although both types of anaphors are coreferential with a previous NP, they have different antecedents. The third person pronoun *er* is coreferential with the subject of the previous sentence, i.e., *Peter*, whereas the demonstrative *der* can only be interpreted as being coreferential with the object, i.e., *einen Polizisten* 'a police man'. The two types of anaphors have different antecedents because they serve different discourse-pragmatic functions.

Third person pronouns are used to continue a previously established discourse referent that is already in the interlocutors' focus of attention, whereas anaphoric demonstratives are used to indicate a topic shift, i.e., they direct the addressee's attention to a new discourse participant (cf. Diessel 1999). The same complementary use of third person pronouns and anaphoric demonstratives has been observed in Dutch and Russian (Comrie 1998), To'aba'ita (Lichtenberk 1996), Tagalog (Himmelman 1997), and Montagnais (Cyr 1993, 1996). In all of these languages anaphoric demonstratives function to shift the interlocutors' attention on a new discourse participant that serves as the main topic in the subsequent discourse (cf. Himmelman 1997; Diessel 1999: 96–98).

In English and German, discourse-related demonstratives are morphologically indistinguishable from demonstratives that are used with reference to concrete entities; but there are languages in which these uses are formally distinguished. In Latin, for instance, the demonstrative *is* 'this/that' can only function as an anaphor, whereas *hic* 'this (near speaker)', *iste* 'that (near hearer)', and *ille* 'that (away from speaker and hearer)' are primarily used for language-external reference. Likewise, in Usan (Sepik, New Guinea) the demonstratives *ende* and *ete* are exclusively used with reference to the previous (*ende*) or subsequent (*ete*) discourse (Reesink 1987; Himmelman 1997; Diessel 1999: 103–104).

Since discourse referents are not visible, discourse-related demonstratives are not accompanied by a pointing gesture; however, they involve the same psychological mechanisms as demonstratives that speakers use with language-external reference. In both uses, demonstratives focus the interlocutors' attention on a particular referent. In the language-external use (also called the exophoric use) they focus the interlocutors' attention on concrete entities in the physical world, and in the discourse use (also called the endophoric use) they focus their attention on linguistic elements in the surrounding context. In other words, in both uses demonstratives function to create a joint focus of attention. Joint attention is thus not only important to coordinate the interlocutors' attentional focus in the speech situation, it also plays a crucial role in the internal organization of discourse.

What is more, when anaphoric and discourse deictic demonstratives are routinely used in particular constructions, they often develop into grammatical markers. For instance, in English the definite article *the* and the third person pronouns *he* and *it* are historically derived from anaphoric demonstrative pronouns. The same developments occurred in many other languages across the world (cf. Himmelman 1997; Diessel 1999). In general, demonstratives that are routinely used with reference to linguistic elements in discourse provide a common historical source for some of the most frequent grammatical markers including not only definite articles and third person pronouns but also relative pronouns, complementizers, conjunctions, copulas, directional preverbs, focus markers, and a wide variety of other grammatical morphemes (see Diessel 1999: Ch. 6 for an overview). The grammaticalization of demonstratives is cross-linguistically so common that central aspects of grammar such as definiteness marking and clause combining are crucially determined by this process (cf. Diessel 2006a).

## 5. Conclusion.

This paper has surveyed deictic expressions in natural language and has considered the psychological mechanisms that underlie their use. Two basic types of deixis have been distinguished, participant deixis and object deixis, which serve different communicative

functions expressed by different deictic terms. Participant deictics are primarily used to represent the speech participants in the states of affairs that is encoded in an utterance, whereas object deictics are used to orientate the interlocutors in the situational or discourse context. It has been argued that demonstratives constitute a special class of linguistic expressions that are essential for the communicative interaction between the speech participants and the organization of discourse and development of grammar.

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