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The Speaker’s Eye Gaze
Creating deictic, anaphoric and pseudo-deictic spaces of reference

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1. Introduction

The main recent studies on Sign Languages (Engberg-Pedersen, 1993 on Danish Sign Language; Meier, 1990 and Emmorey, 2002 about American Sign Language; Nilsson, 2004 on Swedish Sign Language) converge in analyzing the personal pronoun system of Sign Languages as only distinguishing between two person categories: first vs. non-first person. It is proposed here to reconsider an objection previously raised against the ‘first vs. non-first person’ hypothesis concerning the role of gaze, and to develop its theoretical consequences, in order to propose a unified description of the referential mechanisms observed in a corpus of the Sign Language of Southern Belgium (LSFB).

The major argument of this paper is as follows:

- The personal pronoun system in LSFB is organized on the correlation between the manual components of the sign and the gaze address.
- This correlation shows the opposition between three personal pronouns, in the singular forms: first, second and third person pronouns (which reconsider the binary opposition between first and non-first person).
- Studying the correlation between the hand(s) and the gaze provides a consistent and economical tool for the description of the referential mechanisms that are deixis and anaphora, in Sign Language.
- The system of personal pronouns of LSFB offers the opportunity to revisit Benveniste’s theory on personal pronouns (in his “Appareil formel de l’énonciation”): namely, it challenges the particular status of the third person pronoun, which is said to be a ‘non-person’ pronoun.

1 The initials “LSFB” stand for “Langue des Signes Française de Belgique”, the name used in official decrees about the sign language of the Deaf Community of southern Belgium; however, the name “Langue des Signes de Belgique Francophone (LSBF)” is now also used by the Deaf Community (cf. www.ffsb.be).
2. Personal pronoun system in LSFB and deixis: addressed gaze

2.1. The ‘first vs. non-first person’ hypothesis

In line with Meier’s (1990) study on ASL, several influential works (Engberg-Pedersen 1993, Emmorey 2002 and Nilsson 2004) support the idea that the personal pronouns system of signed languages does not distinguish between the second and third person. Instead, there is a binary opposition between first and non-first person.

Meier’s main arguments shared by the other authors are:

- the lack of difference in directionality between a pronoun referring to the addressee and a pronoun referring to a non-addressee;
- the non-relevant status of eye gaze, since eye gaze at the addressee occurs with second person pronominal reference as well as with first person pronominal reference, and since it is also present in discourse where no reference to participants in the discourse is made;
- the infinite variety of pronouns that would be classified as third person and second person ones, because of the infinite variety of the possible spatial realization of each.

This argumentation seems to take for granted that the value of person depends on the actual participants of the discourse. The notion of “addressee”, for Meier and his colleagues, is defined as the actual person to whom the actual sender is signing. The fact that, within a model which claims that there is no second person value, the notion of “second person pronominal reference” is nevertheless being used, seems to allude to the real and physical properties of the canonical encounter in conversations.

It also appears that, in this argumentation, if manual and non-manual features are taken into account, they are each expected to be relevant independently of the other, before they are considered to be grammatically relevant. This position is opposed to the suggestion of Baker & Cokely (1980), who suggested – pointing the relation between manual parameters and gaze comportment – that the signer’s eye gaze grammatically differentiates second vs. third person pronouns. This central point of the argumentation of Baker & Cokely, i.e. considering the relation between the gaze and the hand, has been given too little importance, in my opinion, by Meier.
2.2. The ‘person (first – second) vs. non-person (third)’ hypothesis

It is precisely this coordination of elements that Berenz (2002) studies as founding the system of personal pronouns and the possibility to use, for Sign Languages, the Benvenistian distinction between person and non-person pronouns.

She observes that the coordination of manual parameters and gaze comportment distinguishes three personal values (first, second and third). In the first and second person pronouns, the hand and the gaze are in line, following the conversational line; they mark the personal values. On the contrary, the third person pronoun is located outside the conversational line: the manual parameters and the gaze form an angle; in this sense, the third person pronoun marks the value of ‘non-person’.

2.3. The gaze addressing as the fundamental deictic marker

Rather than isolating the third person pronoun because it is located outside the conversational axis, by the angle formed between gaze and manual parameters, it can be highlighted, with respect to the six examples of pronominal forms presented in Figure 1, that in all personal pronouns of LSFB, gaze address is a constant component.

![Figure 1: Personal pronouns in LSFB](image)

In the comparison of these forms (and namely ‘d’ and ‘f’), it appears that no point in space is of itself more appropriate to refer to a ‘you’ than it is to refer to a ‘he’, ‘she’ or ‘it’ referent. This is consistent with Meier’s (1990) claims. But it is worth underlining the permanent relation between gaze and hands through the different forms of ‘I’, of ‘you’ and of ‘he/she/it’:

- the addressed gaze with a pointing sign towards the signer’s chest indicates the pronoun ‘I’;
- the addressed gaze with a pointing sign in the same direction as the gaze indicates the pronoun ‘you’;
- the addressed gaze with a pointing sign in another direction than the gaze indicates the pronoun 'he, she, it'.

Whatever the physical directions of both the pointing of the hand and the gaze, in all six cases gaze is directed, and creates the position of an addressee. In other words, the addressing of the gaze structures the personal oppositions. In this sense, eye gaze is not a second person marker, but rather a constant component which structures the personal oppositions.

The addressed gaze appears, in this analysis, to be the constant landmark from which a pointing sign (the manual indices) receives its personal value (and can be interpreted as ‘I’, ‘you’, ‘he, she, it’): it is the deictic landmark.

Beyond the pronominal system, the behaviour of the so called “agreement verbs” sustains the same claim. Figure 2 shows that within these verbs, as in the pronominal forms, the personal indices come from the relation between the hand parameters and the addressed gaze.

Figure 2: Agreement verbs including personal values

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<tr>
<td>a: ‘I send to you’</td>
<td>1-SEND-2</td>
<td>PS-1</td>
</tr>
<tr>
<td>b: ‘You said to me’</td>
<td>2-SAY-1</td>
<td>ACC</td>
</tr>
<tr>
<td>c: ‘He/she has refunded me the money’</td>
<td>3-REFUND-1</td>
<td>ACC</td>
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Following this approach, the claimed particularity of the third-person pronoun (in signed as well as in spoken languages) loses its foundation. Within this system, a pointing index directed out of the direction of an addressed gaze still refers to the deictic landmark (i.e. the gaze addressing), in the same way as first and second person pronouns do. There is no more reason to consider it as a ‘non-person’ pronoun.

In conclusion, the addressed gaze creates and organizes a first kind of referential space: the ‘deictic space’. As Figure 3 shows, this space is physically situated between the locutor and his addressee (considered as a discursive being, and not as an empirical person). All the linguistic values that the deictic space supports are constructed in relation to the deictic landmark that is the gaze addressing.

![Figure 3: Deictic space](image)

### 3. Anaphoric frames of reference: unaddressed gaze

Since this status of deictic marker is assigned to the gaze address, cases of non-addressing gaze can be studied as creating anaphoric frames of reference. Two kinds of values can be studied for their particular gaze behaviour: they will be referred as ‘loci’ and as ‘personal transfer’.

#### 3.1. ‘Loci’: gaze centered in front of the signer

The notion of ‘locus’ is adapted here from the morphologic definition given by Engberg-Pedersen (1993). But the gaze will be here recognized as playing a central role in the creation of such morphologic value.

The signer plots grammatical values of ‘locus’ in the signing space in front of him or her, by focusing points or areas of this space. The gaze address is then briefly interrupted by a gaze that is centered in front of the signer. In this sense, we can say that the value of locus is created in a non-direct relation to the deictic frame of reference; for this reason, it can be considered as an anaphoric value.
The example of Figure 4 illustrates the installation of two loci (‘a’ and ‘b’) by this kind of centered gaze. The area located forward right is briefly focused by the gaze during the articulation of GRANDMOTHER, in the first and fifth pictures (locus ‘a’); hence, it receives a grammatical status for the remaining of the utterance. In the same way, the area situated in front of the signer is focused by the gaze in the second and the third picture (locus ‘b’), and is grammatically associated with the noun GRANDFATHER. When in the last picture, the movement of the verb NURSE is oriented from one area to the other, this implies the inclusion of both grammatical (and anaphoric) values and reference to both associated nouns (‘Grandmother nurses Grandfather’).

![Figure 4: Agreement verb including locus values](image)

The gaze which is so centered towards the space in front of the signer structures this space in grammatical, differential values: it installs a second grammatical space of reference, that can be referred to as ‘frontal space’ (Figure 5).

It is worth underlying that the anaphoric values of locus can co-occur with deictic values, and for example with personal values. Figure 6 illustrates this possibility, with the agreement verb NURSE: the marking for a locus within the verb does not exclude the first person pronoun (i.e. pointing toward the chest with an addressed gaze) just antecedent to the verb.
Figure 5: Frontal space

Figure 6: Agreement verb including a value of person and a value of locus

3.2. ‘Personal transfer’ (or ‘person neutralization’): eye blink and centrifugal gaze

The notion of ‘personal transfer’ is defined by Cuxac (2000) in iconic terms: it refers to the possibility for the signer to represent, by his or her own body and attitude, the body and the attitude of the characters of the story he or she is telling. The description of the behaviour of the gaze, during these iconic forms, and the analysis of their relation with the deictic frame of reference, will lead here to explain the iconic effect of ‘personal transfer’ as produced, morphologically, by a neutralization of the value of person.

The iconic effect of personal transfer, as shown in Figure 7a (in contrast with Figure 7b, where the same verb walk does not show the assimilation between the signer’s body and the walking character), is systematically associated with a centrifugal gaze, preceded by an eye blink, or with a total closing of the eyes. The closed and/or centrifugal gaze causes the grammaticalization of the signer’s body, which hence becomes the reference point for the surrounding space.
This grammaticalization of the signer’s body excludes the co-occurrence of any deictic value, i.e. of any sign sustained by an addressed gaze. The comparison of Figure 8 with Figure 6 reveals this incompatibility.

In Figure 8 indeed (in contrasts with the example of Figure 6), the diverting of the gaze from the address-line occurs not only with the verb form (NURSE), but also with the pointing chest to the signer (noted as ‘c-locus’). The scope of the interruption of the gaze-addressing is wider, and excludes the marking of a personal value with the pointing sign. The designation of the signer’s
chest in this pointing sign coincides with the breaking away from the deictic frame of reference: the ‘c-locus’ does not receive first person value; instead, the signer’s body becomes the centre of a new frame of reference.

The process of the person neutralization causes the grammaticalization of the signer’s body (the ‘signer’s space’), which is taken as landmark point for the space surrounding it (the ‘surrounding space’). Figure 9 schematizes this double grammatical space.

![Figure 9: The signer’s space and the surrounding space](image)

In summary, starting from the identification of gaze-addressing as the deictic landmark in relation to which emerges the value of person, the interruption of this address has been understood as building anaphoric fields of reference. Within the anaphoric process, a distinction has been made between the creation of locus values and the neutralization of person. A locus is the result of the grammaticalization of a point or area in the signing space in front of the signer (which becomes the ‘frontal space’) by the fact that this point or area is the target of the gaze. The signer’s body is not part of this anaphoric frame of reference. The personal transfer (or person neutralization) consists on the grammaticalization of the signer’s body, which becomes the very centre of an anaphoric frame of reference; hence the frame of reference is surrounding the signer.

### 3.3. *Pseudo-deictic anaphora*: an anaphoric value taken as reference point

Both the locus and the personal transfer can be pointed out as the reference point for another anaphoric value. The specificity of this relation that can be called ‘pseudo-deictic’ is that, within the anaphoric frame of reference, one value is pointed out as a landmark for another one. In other words, there is a process of ‘ostentation’ (what is referred to by the concept of ‘deixis’) within the
anaphoric field of references (hence the ‘pseudo-’); it functions as if the deictic coordinates were projected onto the anaphoric spaces.

In Figure 10, it is a locus (locus ‘a’) that serves as reference point from which is defined another one (locus ‘a:b’: ‘b is defined from a’). In figure 11, the reference point is the signer’s body (locus ‘c’), grammaticalized by the personal transfer (or the person neutralization process), from which is defined a value of locus (locus ‘c:a’).

**Figure 10: Pseudo-deictic anaphora from a locus value**

![Figure 10 Diagram](image1)

‘There is a lamp in a; on its right, there is a cupboard’

**Figure 11: Pseudo-deictic anaphora from a form of personal transfer**

![Figure 11 Diagram](image2)

‘[The father] is opening and reading the newspaper; on his left sits his daughter’
In both versions of the pseudo-deictic relation, the gaze behaviour shows a systematic sequence of three moments: first, the eyes interrupt the gaze addressing by a blink; second, they follow the movement of the hand; and third, they come back to the addressing position.

4. Conclusion and theoretical issues

This work is underlined by a conception of deictic and anaphoric referential mechanisms as specific issues of the linguistic and grammatical activity. No reference is made to the actual objects or persons that are present or not to the actual situation of communication.

The grammaticalization of space made by LSFB appears to be founded on the linguistic value produced by the relation between the manual parameters and the gaze comportment. This approach allows deictic and anaphoric references, as well as their relations, to be described in a consistent and simple model.

Gaze is seen as creating three kinds of spaces:
- the ‘deictic space’: it supports the deictic values and its landmark is the addressed gaze;
- the ‘frontal space’: it supports the values of locus and its landmark is the centered gaze;
- the ‘signer’s space and the surrounding space’: it supports the process of personal transfer (or person neutralization process) and its landmark is the closed gaze and the signer’s body.

Benveniste’s model on personal system appears to be revisited by Sign language evidences.

The third person pronoun, as the first and the second person pronouns, refers to the deictic landmark. In this sense, characterizing it as a “non-person” pronoun, as Benveniste do, loses its foundation.

Appendix

The examples of LSFB are transcribed in a multi-line system. The first line indicates the eye gaze behaviour. The second line indicates the activity of the hands. The last line constitutes an English translation (between ‘…’ signs).

Gaze:  

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>↑ ↔</td>
<td>Addressed gaze (↔: during the reported speech of a direct speech utterance)</td>
</tr>
<tr>
<td>↖ ↘ ↦ ↘ ↙ ↑</td>
<td>Eye gaze diverted from the addressing line; the direction of the arrow schematize the actual direction of the gaze</td>
</tr>
<tr>
<td>↖ a</td>
<td>Gaze installing a value of (anaphoric or pseudo-deictic) locus</td>
</tr>
<tr>
<td>v</td>
<td>Eye blink</td>
</tr>
</tbody>
</table>
**Hands:**

- **SEND** English gloss for a manual sign
- **LONG-NOSE** Multi-word gloss standing for one sign only
- **PS** Pointing sign (pronoun or determiner, in verbal or nominal contexts)
- **1, 2, 3** Personal values
- **c or c-locus** The locus located in the signer's space
- **a, b** Loci installed in the signing space by the gaze focus
- **c:a, c:b** Loci defined in relation to the c-locus of a person
  neutralization form (‘pseudo-deictic locus’)
- **ACC** Sign marking the accomplished aspect

**References**


