

The category of person in Catalan Sign Language (LSC) personal pronouns

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Summary: Pronouns can carry grammatical information about their antecedents, most commonly person, number and gender. Although a lot of research has been devoted to exploring the features that sign language pronouns specify, whether or not they encode grammatical distinctions among first, second and third person remains a matter of discussion. However, most studies have focused on singular forms only, and much less attention has been paid to their plural counterparts. Based on the analysis of Catalan Sign Language (LSC) data, this paper aims to contribute to the debate by describing the articulation of the full paradigm of personal pronouns, that is, explicitly integrating non-singular forms in the investigation. Ultimately, this study argues in favor of a three-person analysis of pronouns in LSC, showing that it is possible to account for the different marking of first, second and third person by using a modified version of Berenz's (1996) Body Coordinates Model.¹

Keywords: personal pronouns, Catalan Sign Language (LSC), person markers, duals and collective plurals, body coordinates model, pronominal typologies ■

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■ 1 Introduction

Typological studies have shown that a great deal of variation is found in the way spoken languages encode the grammatical categories of person, gender, case and number in their pronominal systems (Greenberg, 1974; Corbett, 1991, 2000; Cysouw, 2001; Bhat, 2004; Siewierska, 2004). Despite differences, typological investigation has also emphasized the existence of universals (whether absolute or probabilistic) in the domain of pronominal morphology, as well as correlations between the marking of different grammatical categories. Cysouw (2001, 2002), for instance, proposes the following generalization: if a language marks inclusive/exclusive distinc-

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tions, then i) gender marking in first or second person is not attested in the paradigm, and ii) there is no homophony in singular forms.

In the case of the sign languages (SLs) studied to date, it is generally agreed that they do not formally mark the grammatical categories gender and case, except for Japanese and Taiwanese Sign Language, which use different handshapes for masculine and feminine referents (Smith, 1990), and Israeli Sign Language, in which the emergence of a case-marked pronoun has been reported (Meir, 2003). Regarding number, several SLs have been argued to convey fine-grained number distinctions, which can include, at least, singular, dual, collective and distributive plural marking (McBurney, 2002; Cormier, 2012).

The situation is somewhat different when it comes to the grammatical category of person. Despite being the most studied category, there is yet no consensus as to whether SL pronominal systems have dedicated markers for first, second and third person (Lillo-Martin & Klima, 1990; Meier, 1990; Engberg-Pedersen, 1993, 2003; Liddell, 1995; Berenz, 1996, 2002; Cormier, 2002; Lillo-Martin & Meier, 2011; Wilbur, 2013; a.o.). However, most studies have focused on the morphophonological articulation of singular forms alone, and much less attention has been paid to their plural counterparts. Besides, it has been argued that pronominal systems in SLs can mark inclusive and exclusive distinctions, depending on whether the pronoun includes the addressee or not, but clusivity marking has not extensively been described in most SLs (exceptions are Berenz [1996], Alibašić & Wilbur [2006], and, most notably, Cormier [2005]).

This paper is devoted to describing the morphophonological marking of person in Catalan Sign Language (henceforth LSC) personal pronouns. The paper is structured as follows. Section 2 discusses the notion of pronominal person and its relation to number marking. Section 3 focuses on the expression of pronominal person in SLs and introduces the two main proposals regarding the number of person distinctions. Section 4 describes the marking of person in LSC singular and non-singular pronouns. Section 5 presents the main results and proposes a unified analysis for the marking of person in LSC. Section 6 concludes this study.

■ 2 The category of person

■ 2.1 Semantic and morphosyntactic person

The morphophonological category of person encodes, both in the nominal and in the verbal domain, the semantic distinction between discourse roles. First and second person encode the conversational roles of the speech act participants, i.e. speaker and addressee; while the non-speech act participants are associated with third person.

The category of person has typically been considered universal (Forchheimer, 1953; Greenberg, 1967; Zwicky, 1977), as proclaimed in Greenberg's (1967: 96) universal 42: "[a]ll languages have pronominal categories involving at least three persons and two numbers". However, not all person paradigms have different morphological forms for all three person values (Siewierska, 2004, 2011). According to Cysouw (2001), different types of homophony in the marking of singular categories are attested in the world's languages (e.g. opposition between first person and the rest, opposition between second and non-second person, opposition between third person and the rest or no oppositions whatsoever), but homophony in singulars is only found in inflectional paradigms, not in independent pronouns. As noted in the literature, there are languages that lack specific person markers for third person singular and use, instead, demonstratives, full noun phrases or zero forms. Despite the absence of specialized pronouns denoting third person, the opposition between first, second and third person is maintained in such cases (e.g. when the lack of an overt form is invariably interpreted as referring to a non-participant) (Siewierska, 2004).

Besides, it has long been recognized that there is an essential difference between first and second person on the one hand, and the third person on the other (Forchheimer, 1953; Benveniste, 1971; Lyons, 1977; a.o.). According to Benveniste (1971: 217) "Person' belongs only to *I/you* and is lacking in *he*". Actually, the fact that some languages lack person markers for third person has been interpreted as consistent with the idea of the third person being a non-person. However, absence of markers can also be explained under the traditional three-person perspective; namely, if third person is considered a marginal member of the category, absence of specific markers for it is also expected (Siewierska, 2011). The same intuition is captured in feature geometries that account for the morphosyntactic structure of person and number marking in pronominal and agreement systems. For instance, in Harley & Ritter's (2002) geometry, the *participant*

feature (which along with *individuation* and *class* constitutes the nominal features representing person, number and gender) only displays a contrast between two dependents: Speaker and Addressee. In third person, the participant node is not activated, as it corresponds to a non-speaker and non-addressee and, as a consequence, it is the least marked form.

■ 2.2 Interaction of person and number

As has been frequently noted in the literature, person in plurals is a more complex phenomenon, since there are many possible combinations of groups of participants (Lyons, 1968; Benveniste, 1971; Corbett, 2000; Cysouw, 2001; Siewierska, 2004; Daniel, 2005). Furthermore, number in pronouns cannot be equated with number in nominals, as some plural pronouns lack both additiveness and referential homogeneity (Daniel, 2005). In particular, the pronoun *we* does not generally refer to a plurality of speakers, but to a group conformed by the speaker and the addressee(s) (1+2+2), by the speaker and some other non-participant(s) (1+3+3) or by the speaker and both the addressee(s) and the non-participant(s) (1+2+3). Second person can either refer to a plurality of addressees (2+2+2) or to a group formed by the addressee(s) and some non-participant(s) (2+3+3; 2+2+3). Again, third person pronouns differ from the rest: as noted by Benveniste (1971), only the non-person admits a true plural (3+3+3), while first and second plural pronouns generally encode “amplified person”, i.e. reference to more than a single person category. Third person, by contrast, never encodes amplified person.

These differences in the interpretation of plural pronouns (heterogeneous vs. homogeneous reference) led some researchers to draw a parallel between the semantics of first (and sometimes second) forms and that of associative plural markers (Corbett, 2000; Cysouw, 2001; Moravcsik, 2003; Daniel, 2005). Differently from ordinary plurals, associatives refer to a group by naming exclusively its most prominent member, which is exactly what a first person plural typically does.

As in the case of singular categories, there is crosslinguistic variation in the morphological marking of plural. Some languages do not have specific morphemes to refer to more than one entity and the different meaning of the pronominal element has to be retrieved from discourse, by using quantifiers or by conjoining singular forms (Corbett, 2000; Cysouw, 2001; Siewierska, 2004). In relation to the marking of person in non-singular pronouns, some languages show homophony between second and third

person in both dual and plural forms (Siewierska, 2004). On the other hand, given the different referential interpretations of the first person, some languages have different forms to distinguish whether the reference of the pronoun includes or excludes the addressee (Cysouw, 2001; Daniel, 2005). By contrast, the grammaticization of the inclusive-exclusive opposition in second person plural has not been attested in any language so far (Cysouw, 2001; Siewierska, 2004).

■ 3 Pronominal person in sign languages

■ 3.1 Background

Pronominal reference in SLs is usually expressed by a pointing sign. This does not mean that pointing signs should always be equated with personal pronouns, as they can also function as locatives, determiners and demonstratives (Pfau, 2011; Cormier et al., 2013). Most of the SLs studied to date select the index-finger as the default handshape to refer to both the participants and the non-participants in the conversation, yet other manual configurations are also attested. Along with the manual articulation, non-manual components (such as eye gaze, body leans or lip pointing), alone or in combination with signs, can be oriented towards a location to refer to present or non-present entities. First person is marked by directing the index sign towards the signer's chest, while in second and third person the pointing is directed towards a location in space –either the actual location of the addressee or the non-participant(s), or to a location previously associated with a non-present referent, in a process known as “locus establishment” (Friedman, 1975; Meier, 1990; Liddell, 1995; a. o.).

■ 3.2 The status of spatial locations

There are two main analyses in the literature that account for the association of spatial locations and referents.

The so-called iconic perspective considers spatial locations to be part of a gestural continuum and, therefore, non-linguistic (Engberg-Pedersen, 1993, 2003; Liddell, 1995). Under this approach, the location component of the pointing sign cannot be phonologically specified, as it can be directed to a virtually infinite number of directions in space. In this perspective, locations are conceived as representations of the referent in space, so pointing at locations is interpreted as pointing at the referents themselves (Engberg-

Pedersen, 2003). Following Liddell's analysis, McBurney (2002) argues that SLs pronoun systems lack the category of person. That is, if locations cannot be phonologically specified, then they cannot be part of the lexical marking and, in consequence, person distinctions are not lexically marked either.

The so-called R-loci approach, on the other hand, gives a grammatical explanation of spatial locations (Friedman, 1975; Lillo-Martin & Klima, 1990; Meier, 1990; Berenz, 1996, 2002; Lillo Martin & Meier, 2011; Wilbur, 2013; Barberà, 2015; a.o.). For this account, spatial locations are the overt morphological expression of referential indices (Lillo-Martin & Klima, 1990). As summarized by Barberà (2015: 37), the main difference between the two perspectives is that the R-loci approach considers the signing space as a linguistic construct, “[w]ithout a conversation and without the use of referring expressions directed to it, sign space does not exist. It is in fact made evident by means of signs directed to it”.

■ 3.3 Two-person vs. three-person distinctions

The prevalent view on sign language research argues for a grammatical distinction between first and non-first pronouns –either the addressee or the non-addressee– (Meier, 1990 for American Sign Language; Engberg-Pedersen, 1993, 2003 for Danish Sign Language). In Meier's account of American Sign Language (ASL), first person pronouns are taken to be formally different based on the following observations: i) they are the only forms that make contact with the signer's body, ii) they are the only pronouns that include other handshapes than the index, iii) they behave differently under role-shift, and iv) first person plurals are the only non-compositional plural pronouns, as they do not incorporate the same arc movement found in non-first plural pronouns. According to Lillo-Martin & Meier (2011: 103), the form of non-first person is always identical, namely a point towards the location of the referent, either the actual or the assigned location. Given the absence of distinctive phonological features (either manual or non-manual), they argue, second and third person cannot be formally distinguished in the system. In practice, this means that at least some SLs would counter-exemplify the universality of three-person distinctions in singular pronominal paradigms.

An alternative explanation can be found in Berenz's (1996, 2002) analysis of Brazilian Sign Language (LIBRAS) pronouns, which makes use of a Body Coordinate Model to distinguish the morphophonological marking of all three persons. The formal distinction between second and third per-

son is accomplished by taking into consideration the alignment of different articulators, namely, eye gaze, chest, handshape and head. According to this model, when reference to participants (signer and addressee) is made, the four coordinates are aligned along the midline of the signer’s body (Figure 1), being first and second pronouns respectively “the proximal and distal members of an opposition within the plane at the vertical axis of the signer’s body (the midline)” (Berenz, 2002: 207). On the other hand, reference to a non-participant is marked by a misalignment in some of those coordinates (Figure 2).

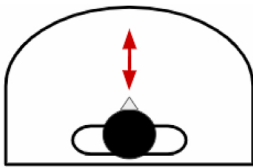


Figure 1. Alignment of coordinates

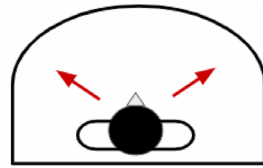


Figure 2. Misalignment of coordinates

Additionally, Berenz indicates that, in order to keep third person maximally distinct from second person, third person pronouns avoid the midline, and they are directed either to the signer’s ipsilateral side (corresponding to the side of the dominant hand) or to the contralateral side (corresponding to the opposite side of the dominant hand). What is remarkable about this model is that it gets rid of spatial locations to account for the marking of person: “[t]o distinguish the persons of the conversation, i.e. sender and receiver, loci plays no part” (Berenz, 1996: 191).

This study supports the idea that the signing space is a linguistic construct and that spatial locations are incorporated into the LSC grammar, as proposed in R-loci accounts. It also puts forward the argument that it is possible to distinguish first, second and third person markers in LSC personal pronouns by using a simplified version of Berenz’s (1996) Body Coordinates Model.

■ 4 Paradigm of Catalan Sign Language personal pronouns

This section focuses on describing the person markers that were systematically found in LSC singular and non-singular personal pronouns. This is not to say that morphophonological and semantic person do always align

with each other, as cases of non-correspondence can also be identified, but a detailed analysis of such cases is beyond the scope of this paper. Besides, although person may also be expressed in verb inflection, the description presented here is restricted to person markers in personal pronouns when referring to animate entities.

■ 4.1 Data

Empirically, the data for the current study comes from three different sources: semi-spontaneous data, elicited productions and acceptability judgments. In the case of semi-spontaneous data, two corpora were used: the corpus of Aesop's fables in LSC, inspired by the ECHO Project (cf. Crasborn et al., 2007) and a sample of the LSC corpus, developed by the *Institut d'Estudis Catalans* (Barberà et al., 2015). Besides, given the nature of the tasks in the corpus, which, among others, include a presentation and explanation of a personal anecdote, reference to non-singular entities is less frequent. Therefore, elicitation sessions with two deaf native signers of LSC (a woman and a man, both middle-aged, born and raised in Catalonia) were also designed to collect more instances of dual and plural forms. Because of the importance given in previous literature to the effects of the actual or the assigned location of the referents, informants were asked to produce sentences considering different space layouts and, particularly, in which the addressee was not placed in front of the signer. Additionally, judgments were collected to assess the acceptability of missing data and to find evidence on the (im)possible interpretations of the target forms. Specifically, informants were presented a context (including either the prior linguistic context or explanations about the speaker's goals) and the target linguistic expression under analysis (a sentence containing a pronoun). They were asked to rate the acceptability of the expression to pick up the intended referent, discuss other possible interpretations and provide alternative forms they considered to be more acceptable or less ambiguous.

Given that the goal of this paper is to report the strategies used in the LSC pronominal system to mark person values, most of the pictures provided throughout the paper are given without reference to the linguistic context they appear in, as they are only intended to show the specific form of the sign. All examples in the article have been taken from the LSC corpus or produced in elicitation sessions by the two informants (either prompted or spontaneously produced in conversations during the session).

■ 4.2 Person marking in singular pronouns

As in most SLs, LSC singular pronouns are mainly expressed by means of an index pointing sign.

First person singular is signaled by two main markers, regardless of whether the sign refers to the actual speaker or to the speaker of a reported discourse, just as argued in Meier's proposal. The morphophonological markers in question, as described by most investigations, are orientation of the pronoun towards the speaker's torso and contact (or nearly contact) with the signer's body.

The specific location in the signer's body towards which the sign is directed can vary depending on the place of articulation of preceding or following signs, but it is nonetheless consistently directed to the torso.² For instance, if oriented towards the face it no longer marks first person. Changing this parameter entails a highly specific meaning, namely that the speaker reproduces an event in which he/she was being addressed by other(s) that were pointing at him/her. For instance, the forms in Figure 3a and Figure 3b were produced by the signer when explaining how he got his name sign. He said that he did not understand the meaning of the sign and that his peers repeatedly told him: 'That's you'. Indeed, this form can alternate with a second person in reported discourse, as in Figure 3c, and may also be used in role shift constructions (see Simoens & Barberà, this volume) to encode the perspective of a third person when pointed by other(s). However, the facial expression does not shift, as it still reproduces the attitude of the referred person (as in Figures 3a and 3b).

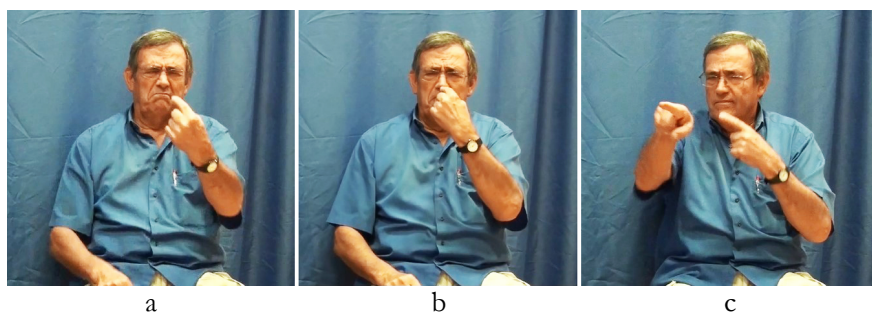


Figure 3. Pointing sign oriented towards the speaker's face

Second person under role-shift

2 This form can also be used as a first-person possessive in LSC.

■ 4.2.1 Second and third person singular

Similarly to what is proposed in Berenz's Body Coordinates Model, the head, the eye gaze and the handsape coordinates are consistently involved in the marking of second and third person, but the chest coordinate is not. As much of the debate around person marking revolves precisely around whether or not second and third person singulars are formally distinguishable, it is useful to examine to what extent some of the features proposed by both Berenz (1996, 2002) and Meier (1990) are also applicable to the LSC case.

■ 4.2.1.1 The eye gaze coordinate

In Berenz's model, eye gaze is a crucial component to distinguish second from third person. Although it may well be the case that eye gaze is not a defining property of the marking of second person but of the signed conversation, just as claimed by Meier (1990), LSC corpus data shows a pattern consistent with the one described in Berenz's analysis. In particular, in second person pronouns, the eye gaze is aligned with the other articulators and tends to be longer, whereas in third person the eye gaze is either i) not aligned with the direction of the pointing sign, or, ii) if oriented towards it, the length of the gaze is usually short and does not spread over the entire pointing sign. Nonetheless, there are also instances of third person pronouns that are marked by a fixed eye gaze. In LSC, these cases seem to be more common in deictic uses of third person, but it remains to be confirmed by further analyses if a direct correlation between the length of the eye gaze and the functions of third person pronouns could be established. Thompson et al. (2013) found evidence for the use of eye gaze to mark locatives in ASL. Since the present study only includes pointing signs referring to animate entities, no comparison is allowed.

■ 4.2.1.2 The chest coordinate

Although LSC data fits well with Berenz's proposal, the alignment of the chest coordinate is not mandatory for the marking of second person, as was also claimed by Alibašić & Wilbur (2006) to account for Croatian Sign Language (HZL) data. According to Berenz (2002: 208), deviations from the alignment/misalignment pattern, which is used to mark second and third person respectively, can be justified on the basis of "exigencies of

particular communicative situations which distort articulation in predictable ways”. For instance, in a three-party conversation, the signer would alternatively align gaze and head when addressing each of the interlocutors, while the chest coordinate would be oriented midway between the locations of the addressees.

However, one can easily find many everyday situations in which reference to the addressee does not involve the alignment of the chest coordinate (when signing while walking, when sitting side by side...). As noted by Jungbluth (2003), linguistic analyses have generally focused on face-to-face conversations when studying contextually dependent expressions. However, in natural contexts, two interlocutors can occupy other positions relative to each other, such as side-to-side or face-to-back. In the case of LSC pronouns, if those different spatial arrangements are taken into account, it becomes more evident that the chest coordinate plays no consistent role in differentiating second and third person. Indeed, according to the analysis presented here, alignment of the chest is purely contingent, since it is often the case that the two interlocutors are facing each other during a signed conversation. However, facing each other, although typical in sign language interactions, it is not a requirement. This is shown in the analysis of LSC semi-spontaneous corpus data, in which, although the two participants in each session are sitting in a 90-degree angle with respect to each other, they never rotate the body to align the chest with the other articulators, as in Figure 4.



Figure 4. Second person (LSC corpus)

The exact same pattern applies in role-shift constructions that depict the actual position of the interlocutors with respect to each other during

the conversation, as well as in cases in which speaker and addressee are sitting side by side, as in Figure 5.



Figure 5. Second person (elicitation session)

■ 4.2.1.3 The ‘midline avoidance’ principle

An additional difference regarding both Berenz’s and Alibašić & Wilbur’s analyses concerns the relevance assigned to the midline of the signer’s body for the marking of second person, which translates in a ‘midline avoidance’ principle in the marking of third person. Specifically, the fact that third person pronouns are predominantly performed on the ipsilateral side in LIBRAS is taken as evidence of the salience of the midline for the marking of second person, and it is argued that signers prefer not to cross it in order to keep second and third person maximally different (Berenz, 1996). LSC data, by contrast, does not show a clear preference for placing referents on the ipsilateral side as opposed to the contralateral. Besides, partly derived from including less conventional space orientations of the interlocutors in the analysis of person markers, it follows that a pointing sign directed to the midline of the signer’s body may not necessarily align with the position of the addressee (i.e. if the interlocutors are not located in front of one another). Therefore, in such situations, and contra Berenz, no restrictions are imposed in using the midline of the body to refer non-participants, as shown in Figure 6.



Figure 6. Third person by pointing to the midline



Figure 7. Third person by pointing downwards

If speaker and addressee are facing each other, a pointing towards (or near to) the midline to refer to a non-participant is also allowed, and misalignment in this case is marked by directing the pointing sign downwards, as in Figure 7, or upwards. However, as the central part of the signing space is the default area in LSC for reference to second person and to non-entities (facts, propositions and events; cf. Barberà, 2015), informants generally reject using it to refer to non-participants. Yet, if presented a context with more than two discourse referents, they may naturally assign them locations falling along a line on the horizontal plane. When the entities are referred back, directing a pointing sign to them is allowed and, if the location corresponds to the central part of the space, it is consistently marked by pointing downwards. By contrast, second person pronouns are directed to the central space and frequently articulated at the mouth level.

Altogether, these differences suggest that it is not the midline, but rather the central space what determines whether the signer refers to the addressee or to a non-participant. In terms of person marking, this means that the signer may displace the center, i.e. the grammatical space itself, to mark reference to the (non)participants. That is, once the signer changes the orientation of the head (and the eye gaze) in order to mark second person, the grammatical space rotates in tandem with it, and the chest coordinate has no contribution in marking this shift. For the very same reason, the midline of the body does not impose any constraint on the person values that may be associated with it, as pointing to the midline needs not correspond to the central space.

In the marking of second and third person, all that seems to matter is whether the gaze, the head and the handshape coordinates are oriented towards the center of the grammatical space (aligned in the case of second

person) or not (misaligned for third person). From this perspective, both the chest and the actual spatial locations the pointing sign is directed at are irrelevant to distinguish second from third person. Indeed, Figures 8 and 9 show that the exact same spatial location can be used for both reference to a non-participant and to the addressee. In Figure 8 the informant is addressing the interviewer while referring to the person next to him, whereas in Figure 9 he is inviting the other informant to go first answering the interviewer's question. This change is simply marked by (mis)aligning the direction of the hand with respect to the head and the eye gaze. For second person to be marked, all three articulators are required to be oriented in the same direction, whereas third person is indicated by directing the handshape towards a non-central location, that is, to a location that is not conjoined with the direction of the head and the eye gaze.



Figure 8. Third person



Figure 9. Second person

Further evidence that alignment of the coordinates presupposes reference to a second person is provided by the fact that if such a pointing sign is directed to a position other than the addressee's, the presupposition that the signer is addressing someone else holds, even if no possible addressee is located in that position. Indeed, informant's judgments indicate that it feels like if the speaker were addressing an imaginary friend. Therefore, in such a situation the pronoun would be interpreted as failing to refer, not as failing to presuppose an addressee in the context.

This closely connects with the marking of second person in role-shift constructions. The fact that second person in this type of constructions shows the same marking as in non-shifted contexts is taken by Berenz as evidence of the grammaticization of the second person pronoun. Arguing against Meier's proposal on the special behavior of first person in this type of constructions, Berenz (1996: 174) states that “[i]n both cases, the form-meaning relationship is constant and independent of the individual who happens to be in the sender or receiver role”. In LSC, just like in the case of first person, the same second person markers are found in reported discourse (see Figure 3c). The fact that role-shift is commonly marked by a change in head position and a shift in the direction of the body and the eye gaze (Quer, 2011) further supports the claim that the signer slightly displaces the grammatical space and directs the second person pronoun to the center of it. In that sense, there is no distinction whatsoever in the marking of second person to refer to the actual addressee or to the addressee of the shifted context.

■ 4.2.1.4 Additional handshapes used to mark singular reference

Some authors have argued against the special status of first person pronouns, as sustained by the first vs. non-first person proposal, by providing evidence that in other SLs the generalization that only first person pronouns allow other manual configurations than the index handshape does not apply. For Spanish Sign Language, Costello (2016) pointed out that handshape alternations are possible for all forms, regardless of reference. This fact does not invalidate the two-person proposal *per se*, but it shows that, at the very least, variation can be found in the way SLs have grammaticalized and express person marking.

In LSC, the most common handshape in singular pronouns is the index, whether or not assimilated to previous or following signs. In all three persons the B (x) handshape to mark politeness, as well as the thumb (2) handshape for shielded reference are also possible. There are two configurations, namely the non-shielded thumb and the derived third person (shielded index), that are only attested in the marking of third person.

According to Berenz, LIBRAS has derived forms for third person, namely the so-called “shielded third person”. This two-handed sign, which consists of a pointing that makes contact with the palm of the other hand as a way of hiding the act of reference, is also common in LSC (see Figure 10). However, differently from the third person index, this covert form is

always deictic, as it is used to signal the position of the referent, making it possible to direct the sign towards the signer's body to indicate reference to someone placed behind the speaker, as in Figure 11a, as well as towards the addressee, to refer to someone located behind him/her, like in Figure 11b. This fact shows that, no matter the direction the pointing is oriented to, a shielded form will always be interpreted as referring to a present non-participant. If the intended referent is placed on the ipsilateral side, the signer must apply dominance reversal, that is, the dominant and the non-dominant hand would reverse their (non-)dominance roles (the dominant hand becomes non-dominant and the non-dominant one becomes dominant), so that the non-dominant hand performs the pointing sign. As the sign also conveys the information that the speaker wants to hide his/her assertions from the referred person (and, eventually, from others), it naturally follows that its use is limited to refer to human non-participants.

Shielded forms are accompanied by specific non-manual markers, namely: a short glance directed to the location of the referent or to the hand, raised eyebrows and pulling the corners of the mouth down or, alternatively, stretching the lips.

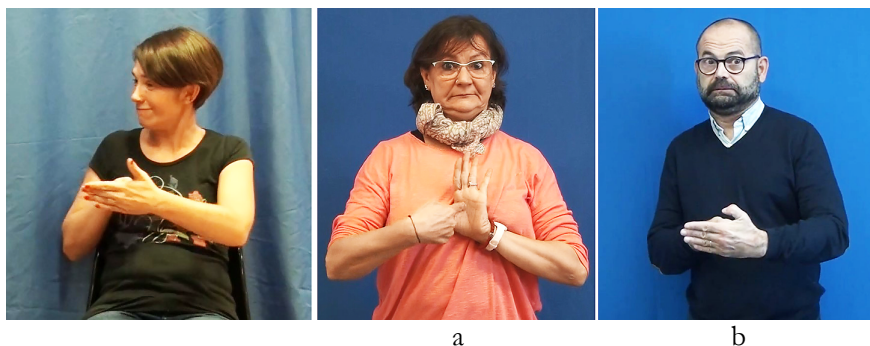


Figure 10.
Covert third person

Figure 11. Covert third person
(reference to a non-participant placed
behind the speaker/ the addressee)

In LSC, as noted by Barberà (2015), differently from the case of ASL, the thumb configuration is mostly used to mark anaphoric reference to a third person. When compared to the index handshake, the thumb configuration is more restricted, as it cannot be marked for plurality by incorporating a circular movement to signal that the pronoun refers to more than

one entity. Using this handshape has an additional restriction: namely, that the thumb cannot cross the central part of the space. Therefore, for reference to a non-participant located in the contralateral side, it is required to reverse the dominance as to produce the sign with the non-dominant hand (Figure 12) or, else, using the index handshape.

Interestingly, the thumb handshape can convey a similar meaning to that of the shielded form if accompanied by the same non-manual markers. For this specific use, the thumb configuration does not impose any restriction on the person value it conveys, as it can be used to hiddenly refer to both the participants and the non-participants present in the speech act. In this case, the movement is usually limited to the thumb, and it does not extend to other articulators that are more proximal to the body, as the hand or the arm, as in Figure 13.

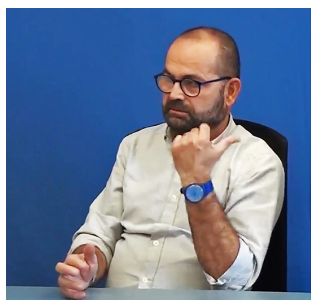


Figure 12. Thumb handshape for third person (non-dominant hand)



Figure 13. Covert third person with thumb handshape

■ 4.3 Person marking in non-singular pronouns

The expression “non-singular pronouns” is used to refer generically to number values other than singular. Although Spanish or Catalan only show an opposition between two number values (i.e. singular and plural), other languages convey more fine-grained distinctions in the category of number, which can include intermediate values such as dual, trial, quadral or paucal (Corbett, 2000).

Besides having singular forms, the LSC pronominal paradigm also encodes duality, plurality (both collective and exhaustive) and clusivity distinctions. Given that in most languages the speaker is ranked higher in the

referential hierarchy, the most common pattern is that clusivity marks the inclusion/exclusion of the addressee. For ASL it has been proposed that inclusives are performed in the center of the chest, while exclusives are marked by a slight movement to one side of the space (Cormier, 2005). For HZL, Alibašić and Wilbur (2006) consider instead the inclusion/exclusion of the speaker, although it remains unclear what the basis for that turn is.

In the remainder of this subsection, the morphophonological markers of person and number in dual and collective plural pronouns will be addressed. Given the lack of sufficient data, exhaustive plurals will not be dealt with here.

■ 4.3.1 Person marking in duals

Dual pronouns are used to refer to two distinct entities (Corbett, 2000). In LSC, duality is marked by a V or a K handshape moving back and forth between two different locations. Similar to the case of plural pronouns, as presented in Section 2.2, duals can have an additive interpretation –reference to a duality of addressees (2+2) or to a duality of non-participants (3+3)– or an heterogeneous interpretation –reference to a duality conformed by two different person values (1+2; 1+3; 2+3)–. Additionally, if the aggregates 1+2 and 1+3 show a different morphophonological marking, that will be associated with having clusivity distinctions in the system.

In LSC, if the dual moves close to the signer's torso, shoulder or mouth, the pronoun marks first person. Unlike first person singulars, first person dual pronouns do not generally involve contact with the signer's body. Depending on the direction of the movement, the sign is articulated with small variations: i) when moving from the ipsilateral side, the handshape (usually the V configuration) approaches the ipsilateral side of the signer's body, generally the shoulder; ii) if the line traced by the movement of the pronoun goes towards the contralateral side, the handshape reaches the upper part of the contralateral signer's chest (close to the shoulder) and invariably uses the K handshape; iii) if the sign moves between the central space and the signer, its proximal point is either the speaker's torso or the mouth and both V and K handshape are possible.

Inclusive duals (1+2) are formally marked by aligning the head and the eye gaze with the line traced by the movement of the sign (either towards the contralateral, towards the ipsilateral or towards the central space), as in Figure 14.

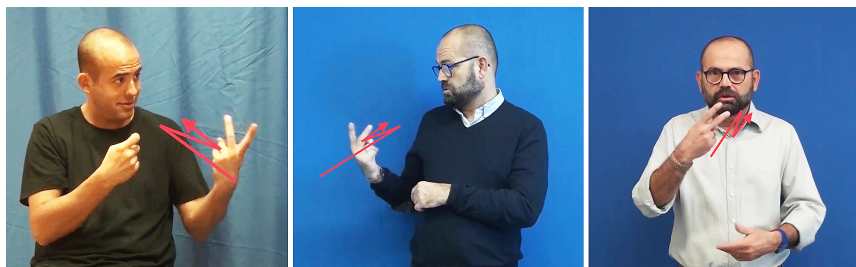


Figure 14. Dual inclusions ('you.sg and I')

Exclusive duals (1+3), in turn, are marked by not aligning the direction of the head with the handshape, as in Figure 15. The sign may be preceded by a short gaze towards the location of the handshape at the onset of the sign. Although the head does not rotate to the same direction, exclusive duals are sometimes marked by a head tilt towards the same side of the space.

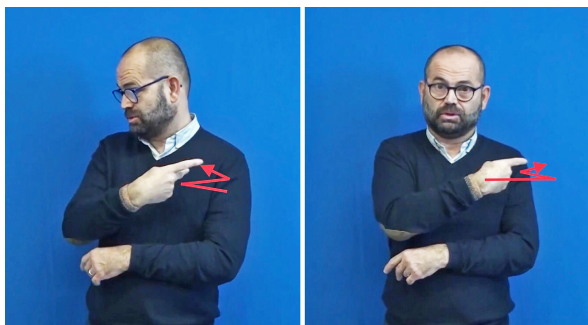


Figure 15. Dual exclusives ('I and other, not you.sg')

Second and third person duals usually take the V handshape. For the aggregate 2+3, the pronoun generally moves between one of the lateral sides and the central space (Figure 16); while for the additive meaning (two addressees), the pronoun moves within the central space, generally in a higher position (Figure 17). However, these distinctions are not systematic enough to postulate a one-to-one correlation between different forms and interpretations (additive vs associative) in second person duals.



Figure 16.
Second person dual
(‘you.sg and other’)

Third person is usually misaligned, moving between two locations on one of the sides of the signing space, as in Figure 18, or between a lateral location and the center. However, this is not always the case, since if two referents are assigned a contralateral and an ipsilateral location, the pronoun may either stop at the central space or move between the two sides of the space. Given that dual pronouns are articulated with the palm facing either the signer or upwards, when articulated in the central space, they cannot mark misalignment by pointing downwards, as it is the case of singular and plural forms. For this reason, the articulation of third and second person duals (either 2+2 or 2+3) may overlap. In fact, most of the pronouns that out of context were formally indistinguishable correspond to instances of second and third person duals



Figure 17. Second person dual
(‘you.sg and you.sg’)



Figure 18.
Third person dual

■ 4.3.2 Person marking in plurals

The existence of the dual in the number system has an influence on the use and meaning of the plural (Corbett, 2000). In LSC, this translates into a restriction in the use of plural pronouns to refer to three or more entities, as well as a strong rejection in consultants' judgments of using plurals to refer to two entities.

As is the case in nominals and verbs, plurality in LSC pronouns can be expressed by using two main strategies: by incorporating an arc movement in the index sign or by reduplicating the pointing sign. Collective plurals, also described as multiple plurals, are expressed by incorporating a circular or an arc-shaped movement in the pointing sign, whereas exhaustive forms are marked by reduplicating the pointing sign, which is successively repeated at different locations within the signing space.

Contrary to the case of ASL, there is no difference regarding the morphological marking of multiple plurality in the first person with respect to the second and the third, as in LSC all three persons mark plurality compositionally. As for person marking, if the pronoun is articulated closer to the signer's body, the set includes the referential element 'speaker' (Figure 19); if it is articulated in line with the signer's head and less proximal to the signer's body, the set includes the addressee and it does not include the speaker (Figure 20); and when laterally displaced or when directed downwards/upwards (if aligned with the direction of the signer's head), the set does not include reference to the speaker nor to the addressee (Figure 21).

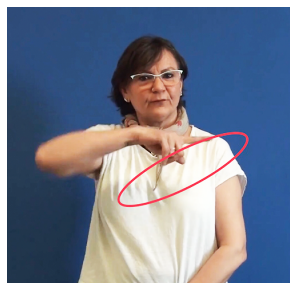


Figure 19. Collective first person

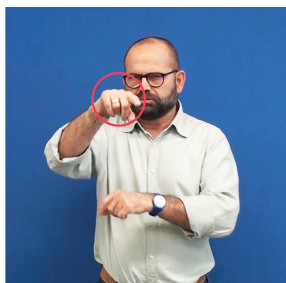


Figure 20. Collective second person



Figure 21. Collective third person

First person collective plurals can conveyclusivity distinctions. As described for ASL (Cormier, 2005), if the pronoun excludes the addressee, it is performed laterally displaced, as in Figure 22. There is a different set of plural pronouns that do not involve a circular movement, but a sweeping one. In the first person, if the handshape is misaligned in relation to the head and the eye gaze, this form marks the exclusive interpretation (‘me and others, not you’), as shown in Figure 23. If the pronoun includes the addressees, the circular movement is not displaced and it is usually bigger than in the case of exclusives, just like in Figure 19 above. No difference was observed depending on whether the pronoun also includes the non-participant(s).

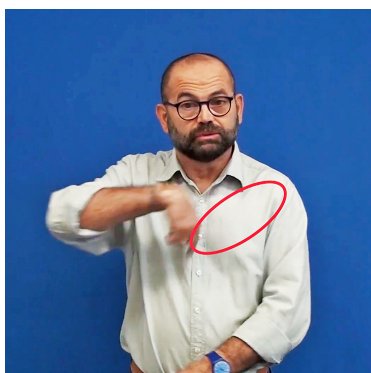


Figure 22. Exclusive collective (‘I and others’)

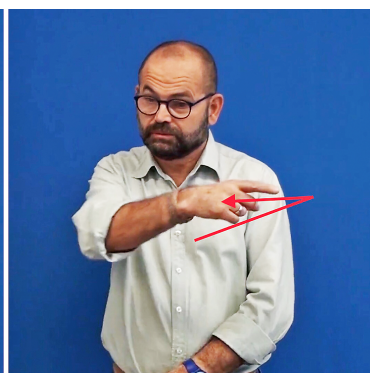


Figure 23. Exclusive collective, sweeping movement

No regular distinctive pattern was found for the marking of second person with an additive interpretation (2+2+2) versus second person referring to the addressee and a plurality of non-participants (2+3+3).

Third person collectives show the same behavior as singulars in that a short eye gaze precedes the direction of the movement of the handshape. According to Berenz’s analysis of plural pronouns in LIBRAS, the third person multiple cannot cross the midline. This constraint, as in the case of third person singular and dual pronouns, is not observed in LSC. Collective plurals, whether performing a circular or a sweeping movement, can change their place of articulation depending on the actual or the assigned location of the entities they refer to. If needed, the collective may cross the central space, as third person is already marked by orienting the pronoun downwards, as in Figures 24 and 25.



Figure 24. Third person
(downwards pointing)

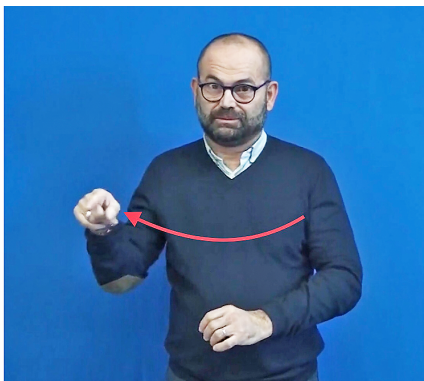


Figure 25. Third person
(sweeping movement)

■ 5 Proposal: form and meaning correlation

Based on the description presented so far, I propose that in LSC the distinction between first, second and third person is indicated by the following morphophonological person markers:

- First person is marked by the path movement of the sign: the handshape is directed towards the signer's torso in singular and plural forms, and may be directed to the mouth in duals. Therefore, first person is marked by proximity to the speaker, which in the singular generally results in making contact with the signer's torso, as well as and a change in the orientation parameter. These markers presuppose reference to the speaker, be it the actual speaker or the speaker of a reported discourse.
- Second person is marked by conjoining the eye gaze, handshape and head coordinates. In all three number distinctions, the pronoun is articulated in the center of the signing space, but distal to the body of the signer if compared to first person. Alignment presupposes reference to the addressee, be it the actual addressee or the addressee of a reported discourse.
- Third person, in turn, is marked by misaligning the eye gaze, handshape and head coordinates. Misalignment can be achieved in singular and collective plurals by displacing the handshape laterally in relation to the head, by pointing downwards/upwards or by a combination of both

mechanisms. Since dual pronouns do not point downwards, the pronoun only indicates misalignment by lateral displacement. Misalignment is interpreted as reference to a non-participant.

The above description suggests that the most relevant features in first, second and third person markers are: [\pm proximal], to account for the distinction of inward movement (path movement towards the signer) vs outward movement; [\pm mid], to distinguish whether the handshape is directed parallel or perpendicular to the signer's upper body; and [\pm central], to contrast whether the handshape aligns with the direction of the head or not.

These features seem to rely heavily on the use of the grammatical space, since they directly correlate with oppositions within the three spatial planes proposed by Brentari (1998). Particularly, the feature [\pm central] contrasts the lateral areas of the horizontal plane with the central space; the feature [\pm mid] corresponds to the distinction between upper, medial and lower locations on the frontal plane; and the feature [\pm proximal] pairs up with the binary opposition between distal and proximal locations on the mid-sagittal plane, which extends perpendicularly to the midline of the signer's body.

The combination of markers described above can be captured by the combination of features in Table 1 (following page). As shown in this table, combinations of the same person value simply generate a copy of the same person markers, whereas combinations of different values produce a modification in the marking of person distinctions. For instance, inclusive duals (1+2) involve both alignment of the head with the line traced by the movement of the sign (as in second person) and a proximal movement towards the signer (as in first person), although generally without contact. Exclusive duals (1+3), in turn, involve misalignment of the direction of the head with the handshape, preceded by a short eye gaze towards the direction of the movement (as in third person) and a proximal movement towards the signer (as in first person).

Given that on top of these distinctions, discourse referents can be assigned locations in the signing space, overlaps between second and third person forms are to be expected when third person is articulated in the central space. For instance, if two or more entities are assigned both a contralateral and an ipsilateral location, the realization of the third person dual (3+3) and that of the second person dual (2+3; 2+2) may coincide, as duals do not point downwards as singular and plural pronouns do. Only if

Number value	Morphophonological markers of person	Features	Person value / reference set
Sg	Orientation towards the speaker; contact	[+proximal, +central, +mid]	1
	Alignment	[-proximal, +central, +mid]	2
	Misalignment: -lateral displacement -pointing down/up +short gaze	[-proximal, -central, ±mid] [-proximal, +central, -mid]	3
Dual	Proximal to the signer Alignment	[+proximal, +central]	1+2
	Proximal to the signer Misalignment: -lateral displacement No lateral displacement +short gaze	[+proximal, -central] [+proximal, +central]	1+3
	Away from the signer Alignment	[-proximal, +central]	2+2; 2+3
	Away from the signer Misalignment: -lateral displacement No lateral displacement +short gaze	[-proximal, -central] [-proximal, +central]	3+3
Col. plural	Proximal to the signer Alignment	[+proximal, +central, -mid]	1+2+2; 1+2+3
	Proximal to the signer Misalignment: lateral displacement	[+proximal, -central, -mid]	1+3+3
	Away from the signer Alignment	[-proximal, +central, +mid]	2+2+2; 2+3+3...
	Away from the signer Misalignment: -lateral displacement -pointing down/up +short gaze	[-proximal, -central, ±mid] [-proximal, +central, -mid]	3+3+3

Table 1. Correlation of person markers, features and semantic values

dual third person is laterally displaced, overlaps are not possible. The same is true for exclusive dual pronouns when articulated in the central space, as they cannot be formally distinguished from inclusive forms. The correlation of features in Table 1 already captures this. In particular, the fact that dual pronouns do not mark misalignment by pointing downwards results in the [mid] feature being unspecified. The fact that no possible oppositions can be drawn within the [mid] feature, in turn, results in having the same selection of features for second and third person duals and for inclusive and exclusive first person duals when the forms are articulated in the central space.

Finally, the [mid] feature in third person singular and collective plurals may take either a positive or a negative value when the forms are laterally displaced, as misalignment is already marked by the [–central] feature.

■ 6 Conclusion

LSC pronouns favor a three-way person analysis, since there are consistent formal differences between first, second and third person. Unlike Meier’s proposal for ASL, in LSC the first person pronoun is not different from the rest in terms of possible handshapes, plural morphology or behavior under role-shift. Although LSC personal pronouns fit better with Berenz’s Body Coordinate Model, some discrepancies are to be mentioned. In particular, the chest coordinate is not consistently involved in marking second person, and the midline of the signer’s body is used for third person marking more commonly than described by Berenz. That is, (mis)alignment of coordinates is relevant for marking person in LSC, but whether there is alignment or not is determined by the direction of the signer’s handshape with respect to the head and gaze. The orientation of the head is essential to determine the value of the feature [\pm central], while for the feature [\pm mid] it is the direction of the hand relative to the head and upper body what defines its positive or negative value. Finally, the value of the feature [\pm proximal] depends on whether the sign targets the signer’s body at some point. For the canonical forms of the pronouns, the combination of these three features is enough to mark person distinctions.

Although further research is needed, the fact that LSC can convey clusivity distinctions and the three-person analysis just proposed here is in line with typologies of person marking in personal pronouns and with Cysouw’s generalization, as presented at the beginning: “paradigms with an inclusive/exclusive opposition do not show any singular homophony at

all” (Cysouw: 2002: 51). From this angle, LSC is no different from spoken languages in terms of the distinctions marked in the pronominal paradigm to encode reference to the participants and the non-participants in the conversation. ■

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