

The status of third person pointing signs in American Sign Language (ASL)*

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Abstract: In the debate on pronominal inventory of American Sign Language (ASL), pointing signs that are translated as 3rd person pronouns in English interpretation usually are treated as one group. In this paper I argue that there are certain pragmatic, semantic, and syntactic differences between pointing signs at present referents and pointing signs at referential loci in signing space used to refer to non-present referents and that due to those differences they should be treated differently: the former are demonstratives whereas the latter are 3rd person pronouns.

Keywords: ASL, demonstratives, pronouns, pointing signs, pointing gestures.

1 Introduction

Signed languages are visual-manual systems, and their modality sometimes makes it challenging to distinguish between linguistic elements and gestures. One area where we see such a challenge is in points in American Sign Language (ASL) often translated as pronouns, which has resulted in a longstanding debate on whether such points are linguistic, i.e., pronouns, or merely pointing gestures (see Meier 1990, Lillo-Martin & Klima 1990, Liddell 2000, 2003, McBurney 2002, Berenz 2002, Pizutto 2007, among others).¹ Settling this debate is key to understanding the pronominal system of ASL. This paper contributes to this dialogue by focusing on points associated with 3rd person referents.

At first glance, points that are associated with 3rd person referents and typically translated as 3rd person pronouns look exactly like pointing gestures, namely, an index finger pointed at something. However, distributional and functional evidence suggests that these points are more than mere gestures, and further, are not a homogeneous group. Under my analysis, points to present 3rd person referents better fit the definition of demonstratives and thus should not be considered in the debate on the pronominal status of points. Only points at non-present referents are candidates for ASL 3rd person pronouns, and I argue that they are.

This paper is organized as follows. First, I will describe points under analysis in section 2. In section 3 I will discuss two dominant analyses of these signs as well as some counter-evidence for those treatments. In section 4 I will discuss some cross-linguistic differences between pronouns and demonstratives and show that there are actually three distinct kinds of 3rd person so-called pronominal pointing signs in ASL, only one of which, pointing at referential loci, is actually pronominal, whereas two other kinds of points are demonstrative. I speculate on the nature of this difference in section 5, which I believe comes from two different uses of the signing space.

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¹ I use the term *pronoun* here for brevity; unless otherwise specified, *pronoun* in this paper means *personal pronoun*.

2 Background: Pronominal reference, nominal establishment and related phenomena

In the most common communicative context there are at least two conversational participants, the signer and the addressee. The signer uses the extended index finger of the dominant hand to point at his/her own chest to refer to him-/herself (typically glossed I/ME or IX₁) and to point at the addressee's chest to refer to the addressee (typically glossed YOU or IX₂).² If other referents are present but not addressed, they are referred to with the same index-finger-pointing in the direction of the referent in question; this pointing is typically glossed as HE/SHE/IT, HIM/HER/IT, or IX₃.

In order to refer to non-present or abstract entities *nominal establishment* is used, which is a process of assigning some referential meaning to a locus in signing space (Lillo-Martin & Klima 1990). The signer first introduces the referent by producing its lexical sign or fingerspelling his/her name and then pointing to a locus in space. Consequent pointing to the same locus would refer to the same (non-present) referent. Optionally, if the lexical sign is not one which is produced on the signer's body, it can be produced in a non-neutral location in signing space, thereby assigning that locus to the referent of the lexical sign directly (MacLaughlin, Neidle, Bahan, & Lee 2000). If another non-present referent is introduced later in the discourse, it would be established at a second locus, and then pointing at the different loci would indicate different referents. Such points are usually glossed as IX_a, IX_b, etc, depending on the number of referential loci (R-loci) used.

R-loci can also be established without the overt pointing just described. When there is only one non-present referent discussed in a conversation, the signer can just name this referent, and then later in discourse point at some locus in signing space. This locus will receive the correct interpretation simply by default, since there are no competing referents to make such use of the R-locus ambiguous.

These signing points at present non-addressed referents and at R-loci have received different treatment in different analyses (see section 3), but they are usually treated as one group. This is partially due to the fact that they have the same handshape and usually get 3rd person interpretation in English translations. However, I claim that any similarity in form can be explained by homophony. What I will show is that these points have significant differences in their distribution and function, and thus should not be treated as one group. Another issue often mentioned is the presumed unlimitedness of possible locations of the referents. However, even this unlimitedness affects points at present non-addressed participants differently from points at R-loci (see section 5). Before I provide evidence for the proposal that points at present but not addressed participants are demonstratives and points at R-loci are 3rd person pronouns, I will first discuss two other analyses

² Sign glosses are traditionally represented with small caps, and sign handshapes are often described according to the values they have in ASL's manual alphabet. Additionally, I employ the following notational conventions (and all of the examples I cite are rewritten using those conventions):

IX – the G-handshape deictic point (a closed fist with the index finger extended);

1, 2, 3 – subscripts denoting pronominal indexing of the location of the signer (1), the addressee (2) or a nonaddressed participant (3). The same subscripts are employed for denoting verb agreement with these locations;

i, j, k – subscripts denoting arbitrary locations in the signing space;

[] – a single syntactic constituent;

$\frac{1}{r}$ [] $\frac{1}{r}$ – a role-playing sequence with body shifting to the left or right;

$\overline{\text{SIGN}}$ nonmanual marking – nonmanual features (facial expressions) that are co-articulated with manual signing, are marked with an overline over all the glosses of signs they are co-articulated with. These features are specified with corresponding superscripts.

that are currently the dominant ones in section 3 along with some counter-evidence against these analyses.

3 Previous research

In the extant literature, points have received a number of different analyses, which differ on the number of person pronouns (see Table 1), as well as which aspects of pointing are singled out as pronominal: for example, for Friedman (1975) it is the locus that is pronominal whereas for Lillo-Martin & Klima (1990) it is the pointing gesture that is pronominal. Below I briefly review two more widely accepted analyses (section 3.1), the two-person analysis (Meier 1990) and the gestural analysis (Liddell 2000). I then proceed to some counter-evidence for the former in section 3.2.1, and for the latter in section 3.2.2. I conclude that points conform to neither of these two analyses before reevaluating the available evidence in sections 4.1-3 where I lay out my proposal.

Table 1. The number of grammatical persons in different approaches

No person		One person	Two persons	Three persons
Mandel 1977, Wilbur 1979, Liddell 2000, McBurney 2002	1977, Liddell 1990	Lillo-Martin & Klima 1990	& Meier 1990, Lillo-Martin & Meier 2013, Liddell 2003	Friedman 1975, Klima & Bellugi 1979, Padden 1983

3.1 The dominant analyses

Of all the various analyses of the pronominal pointing signs, two have emerged as the most influential. The first is Meier (1990), who argues that ASL pointing signs at referents are pronominal, but that only 1st person pronouns are marked for person: their forms do not vary across signers and the plural form WE is fully lexicalized and non-compositional (as opposed to forms in which every referent included is pointed at separately as is the case for 2nd and 3rd person reference). Crucially, he introduces evidence from *role shift*, a mechanism employed in sign languages to convey direct quotations and reported speech. In role shift, the signer assumes facial expressions or posture of the ‘speaking’ referent, and, most important here, a slight body shift toward the referent or their R-locus can take place. Meier notes that in role shift, pointing to the signer’s chest no longer refers to the signer him-/herself, but to the signer of the quoted utterance. The two tokens of IX₁ thus refer to two distinct referents, just as in reported speech of spoken languages:

- (1) YESTERDAY IX₁ SEE FRIEND. $\overline{I[IX_1 \text{ LOOK_FOR(DURATIONAL) IX}_j]l}^{\text{gaze } j}$
 ‘Yesterday I saw a friend. “I’ve been looking for you,” she said.’ (Meier 1990: 182)

Meier argues that 2nd person pointing resembles that of 3rd person pointing in that more than one addressee can be present. The set of pointing signs we may identify as 2nd person overlaps with the set of 3rd person, and thus is subject to the same arguments against its possible independent status (such as variable and multiple locations and so on). Thus, according to this approach ASL has only two persons: 1st and non-1st.

The other most influential analysis is Liddell’s (2000). He claims that the unlimited number of locations where the non-addressed participants can be situated as well as R-loci where the referential meaning can be assigned makes it impossible to give a unified linguistic account to such pointing signs. He adopts Fauconnier’s (1985, 1997) theory of mental spaces and claims that all such pointing signs are in fact gestures, even in the case of pointing to R-loci. For R-loci, Liddell

believes that the signers imagine their referents in those loci, and thus their pointing is, again, gestural.

However, the gestural aspect of Liddell's proposal seems to be incorrect because, as Meier (1990) has already pointed out, all pronominal pointing signs are integrated in the sign stream just as other signs and they are subject to the same constraints; even though they cannot be listed exhaustively, their places of articulation are the same as those used in ASL verb agreement; pointing signs can be used anaphorically; and their distribution within sentences is syntactically constrained in the same way as other signs.

3.2 Some counter-evidence to the dominant analyses

What is similar for both of the approaches described above is their treatment of 3rd person pointing signs. Neither account sees pointing signs at present versus non-present referents as different from each other in any significant way. For Liddell (2000) the referents of R-loci are just as concrete as present referents. For Meier (1990) present and non-present referents are the same in that they are just instances of non-1st person pointing. Part of the problem with these forms comes from the fact that they appear to be identical: they use the same handshape and they are glossed the same way in English translations. However, neither of these facts means that these forms must be a single form. Homophony is widely attested cross-linguistically, and with this possibility in mind we should take a closer look at the distribution of these forms. Numerous kinds of evidence in the literature show that different kinds of pronominal pointing have different properties in distribution, acquisition, and morphological marking. In this section, I will present some evidence supporting the claim that pointing signs are not gestural, in opposition to Liddell's (2000) claim (section 3.2.1), as well as evidence that 3rd person pointing is distinct from 2nd person pointing, contrary to Meier's (1990) claim (section 3.2.2).

3.2.1 Evidence against the gestural analysis

If the gestural analysis is correct, we should see certain gestural non-linguistic manifestations in the structure of language, language processing, and language acquisition. For example, it predicts that both the signer and the addressee exhibit the same eye gaze behavior as hearing people do when the speaker points at something. Furthermore, it predicts that children acquiring sign languages natively acquire them simultaneously with regular pointing gestures at objects and locations. Below I show that neither of these predictions is borne out by the data.

3.2.1.1 Eye gaze in pointing gesture and pointing signs

The addressee's eye gaze behavior can be used to distinguish linguistic pointing from extra-linguistic gestural pointing. As Pizzuto (2007) and Berenz (2002) note, for ostensive pointing gestures the addressee has to shift his/her visual attention to the location that the gesture points at, but not at the gesture itself or the gesturer. However, in signed discourse the addressee's eye gaze rarely shifts from the signer's face and the space immediately surrounding the signer's face, and this state of affairs has significant consequences for signed communication. Since the addressee's eye gaze is fixed on the signer's face (just as the gaze of hearing people in face-to-face communication, see Argyle & Cook 1976, Kendon 1990), the face is the focus of the foveal vision, which is very detailed (Findlay & Gilchrist 2003). The space further away from eye fixation is processed by the peripheral vision, which is less acute but is superior to the foveal vision in motion processing. Signed languages respect these constraints on perception (Siple 1979): small, detailed motions occur on and around the face and upper body region, and signs produced in the lower

acuity regions are larger and less detailed. Therefore, what the addressee appears to perceive is the movement and orientation of the pointing sign rather than the specific location. In light of this, it would come as no surprise that there is so much phonetic variation in pointing back to the same referent: if it is the orientation and direction, not the specific location, that are important, the communication will be successful as long as the orientation and direction are sufficiently recognizable.

With pointing gestures of hearing people, however, the situation is different. Studies on gesture perception show that, even though addressees tend not to fixate on the speaker's gestures but look at the speaker's face instead, the concrete deictic gestures tend to be fixated (Gullberg & Holmqvist 1999). This deictic gesture fixation presumably happens due to their function of drawing the addressee's attention to the targets of those gestures.

3.2.1.2 First-language acquisition

If pronominal pointing is gestural, we would expect that children acquiring sign language natively would acquire such pointing at the same time as hearing children acquire deictic gestural pointing. However, this appears to not be the case. In her longitudinal study of hearing children acquiring ASL from their deaf parents, Pettito (1987) found that gestural pointing appears early, around 10-12 months of age, whereas pronominal pointing at self and others develops later, and shows pronoun reversal (using 'I' to mean the addressee and 'you' to mean self), a common acquisition error also found in children acquiring spoken languages. The full knowledge of pronominal reference is not acquired until about 27 months of age. Interestingly, Antinoro Pizzuto and Capobianco (2008) report very similar results in hearing children acquiring Italian. Comparing their results on both deaf and hearing children, they conclude that the gestural expression of 1st and 2nd person deixis and its vocal counterpart take more time to develop than simple deictic pointing at objects and locations.

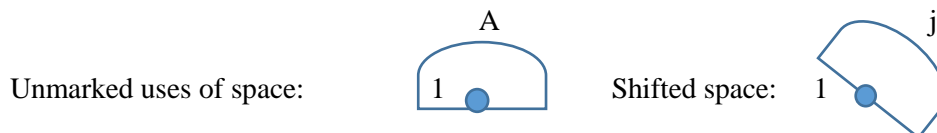
3.2.2 Evidence against the two-person analysis

Under the two-person analysis, 2nd and 3rd referent forms are defined in terms of their shared differences from the 1st person forms. It is these shared differences (from 1st person) that lead Meier to his analysis. Here I will address two arguments of Meier's (1990), role shift and general plurals.

3.2.2.1 Role shift

As we have seen above, Meier (1990: p. 182), in his argument for pronominal status of 1st person pointing forms, gives the example of role shift (repeated below for convenience):

- (1) YESTERDAY IX₁ SEE FRIEND. $\overline{l[IX_1 \text{ LOOK_FOR(DURATIONAL) IX}_j]l}^{\text{gaze } j}$
 'Yesterday I saw a friend. "I've been looking for you," she said.'



In the second sentence, which conveys a reported utterance, the signer shifts his body to the left while looking not at the addressee but at the locus j. This same locus is used to sign YOU, as the pointing to it is YOU of the reported utterance. In this example we see that 2nd person can also

be displaced in role shift, and both manual agreement (both of the verb and of the pointing pronominal sign) and nonmanual agreement (eyegaze) indicate that locus j “stands for” the YOU of the reported utterance.

However, as Liddell (1995) points out, 2nd and even 3rd person can shift as well, as opposed to R-loci, that can encode only 3rd person. Thus, role shift is not actually restricted to 1st person, and so does not distinguish 1st from 2nd from 3rd persons as neatly as Meier claims.

3.2.2.2 General plurals

McBurney (2002: 362) gives an example demonstrating that some instances of non-1st plural forms do not indicate the location of the referent. Her example is reproduced below (the original notation was changed to the one adopted in the present paper):

- (2) Context: The signer is describing her experience working at a Deaf school. The individuals for whom she worked, while the topic of conversation, have not been established at distinct locations in the signing space.

RESEARCH WORK,^{topic} REGULAR.^{head nod} SOMETIMES FIND INFORMATION FOR IX-PL
'I did research on a regular basis. Sometimes I found information for them.'

In this example, IX-PL (produced with the index finger sweeping left to right in a neutral space) is used as an unspecified general plural. Even though it is produced with the index finger and has other characteristic features of pointing pronominal signs (such as a sweeping motion for plurality), it is nonetheless non-indexical, as it does not point to any previously established or present referents. Though this plural is not deictic (because it does not point at any referent, present or established), it is anaphoric, because the linguistic antecedent is readily accessible through context. Thus we see here that at least some forms of 3rd person pronouns are just as deindexicalized as the 1st person plural form WE. Interestingly, no such deindexicalized 2nd person plural has been reported to exist.

Thus, on at least two of the dimensions that have been used to distinguish 1st from other persons, the distinctions do not, in fact, hold; 1st person is not as distinct from 2nd and 3rd as has been argued.

This section showed that both gestural and two-person approaches to 3rd person pointing signs are flawed. These pointing signs are linguistic elements because they obey phonological rules of ASL, display certain distributional and morphological properties and are clearly processed as linguistic items and show the same learning effects as pronouns in spoken languages are known to evince. Additionally, pointing at R-loci is different from pointing at the addressee(s): the former is 3rd person pointing and the latter is 2nd person pointing.

4 Demonstratives vs. pronouns: basic differences³

One of the frequent arguments against the pronominal status of 3rd person pointing signs in ASL is their varied behavior that does not fit the prototypical cross-linguistic features of pronouns. This is indeed so, but I claim that this varied behavior comes from the fact that not all of these pointing signs are pronominal: some of them are demonstrative. Moreover, even those that are demonstrative do not belong to a single class of demonstratives. If we properly classify those pointing signs and

³ Not everyone accepts personal pronouns as a word class; see for instance Déchaine and Wiltschko (2002). My analysis does not go against such proposals; however this issue is outside of the scope of this paper.

then analyze only the pronominal ones, their behavior is much more akin to what linguists expect of pronouns.

It is important to note that the distinction between demonstrative pointing signs and pronominal pointing signs goes beyond which ones are deictic and which ones are anaphoric. Even in spoken languages, demonstratives and pronouns have distinct (though often overlapping) syntactic distributions, pragmatic functions and semantic features. Here I adopt Diessel's (1999) criteria of demonstrative expressions: (i) pragmatically, demonstratives are used to focus the addressee's attention on a specific referent in the utterance situation (or context), which makes them both definite and specific; (ii) semantically, demonstratives incorporate both deictic features, which indicate the location of the referent in the speech situation, and qualitative features, which characterize the referent (such as various genders, visibility, etc.); and (iii) syntactically, a combination of a certain distribution and a specific form defines the categorial status of these expressions (such as whether the demonstrative is adnominal (e.g., *this*) or adverbial (e.g., *there*)).

If demonstratives function for locating participants of events, personal pronouns denote speech roles and identify their involvement in the reported event (Bhat 2004). Thus, the former are often marked for identifying characteristics of their referents (number, gender, case and so on), but the latter are dissociated from their referents: for example, number on pronouns is used to denote different combinations of speech roles rather than the plurality of their referents. For example, both pronouns and demonstratives can be plural, but the former shows that each referent denoted by the plural pronoun is a speech act participant of the utterance, while the latter merely shows that the entity referred to is plural. To see this, consider the examples in (3).

- (3) a. We promise to do this assignment by tomorrow
b. I promise to do these [assignments] by tomorrow

In (3a) each person included in the denotation of *we* is promising to do the assignment. In contrast, in (3b) *these* merely indicates the plurality of the assignments that the speaker promises to do.

Bhat argues that this dissociation is functionally necessary, since in a normally progressing conversation the speech roles tend to shift among the participants; therefore, a pronoun such as 'you' must always refer to the addressee of the speaker and not to a particular referent. Because of this dissociation, pronouns usually do not encode any of the identifying characteristics of their referents (e.g., gender is encoded mostly in 3rd person pronouns, if at all, but never through the entire pronominal paradigm).⁴

I follow Bhat's (2004) criteria in distinguishing pronouns from demonstratives. Beside the classical (and problematic) notion that pronouns 'stand for' their referents whereas demonstratives merely specify their referents (i), he names the following ones: (ii) pronouns 'stand for' noun phrases, not just nouns (Lyons 1968); (iii) demonstratives denote referents that are not actually named, but are pointed at. These criteria, though helpful, are not ideal.⁵ Bhat focuses on more functional-formational distinctions instead: pronouns denote speech act participants and link speech roles with case roles, they tend to be monomorphemic, do not specify their referents (therefore do not take modifiers and complements) and are anaphoric, among other things.

⁴ Semitic languages are one notable exception to this generalization, as they encode gender differences on 2nd person pronouns as well, see Bhat (2004).

⁵ As Bhat notes, even the classical 'stand for' does not really work for 1st and 2nd pronoun: the sentences "I am reading a book" and "The speaker is reading a book" are not identical. Interestingly, according to this definition it is the 3rd person pronoun that is truly pronominal.

There are some additional differences, which I describe below. In the following two sections I present ASL data from published sources in light of the cross-linguistic properties of demonstratives and pronouns in order to show which pointing signs fit which category.

4.1 Demonstratives among the ASL 3rd person pointing signs⁶

Here I consider two instances of 3rd person pointing in light of the criteria just outlined, namely (a) pointing at present referents, and (b) the first pointing after explicit naming/fingerspelling of a non-present referent in nominal establishment, the pointing that assigns a new referent to a specific locus in signing space. I will argue that the former are instances of *pronominal demonstratives*, that is, demonstratives that can be used both as independent pronouns and as modifiers of a co-occurring noun, whereas the latter are *demonstrative identifiers*, which are used in copular and nonverbal clauses (see example 7, terminology adopted from Diessel 1999: 58-59). I will further argue that pronominal demonstratives in ASL can be marked for number, but not for distance. Demonstrative identifiers, on the other hand, always follow an explicit naming by means of a lexical sign or fingerspelling in the process of nominal establishment, and are mandatory only if the sign that introduces the non-present referent is anchored on the body of the signer; in other cases, they are optional and can be omitted.

4.1.1 Pronominal demonstratives

I argue that pointing signs at present but non-addressed referents are pronominal demonstratives. I argue this because: (i) pragmatically, these pointing signs are used to specify the addressee's attention on a specific referent in the utterance situation (the exophoric use in Diessel's hierarchy, because the referent being specified is actually present in the surrounding situation); (ii) semantically, they characterize their referents (e.g., number); and (iii) syntactically, they are pointing signs that appear before the noun in noun phrases or can stand on their own, thus combining features of pronominal and adnominal demonstratives (which is not infrequent cross-linguistically, see Diessel 1999). In languages that do not distinguish between pronominal and adnominal demonstratives, those demonstratives are considered to be instances of the former. The pragmatic evidence for this claim comes readily from the fact that the forms I claim to be pronominal demonstratives are pointing signs at *present* referents, so for reasons of space I will not elaborate on this any further. Below I discuss semantic and syntactic evidence for my claim.

Semantics: deictic features. The pointing signs described in this section are not marked for distance, which may appear to be surprising because I claim that they are demonstrative signs. However, Himmelmann (1997, cited in Diessel 1999) argues that marking a deictic contrast is not a universal feature of demonstratives.⁷ Himmelmann uses evidence from colloquial German to

⁶ I wish to emphasize here that I do not claim that the two kinds of demonstratives that I describe in this section are the only demonstratives that exist in ASL. The full demonstrative inventory of ASL deserve a separate study, and here I restrict myself only to pointing signs that get 3rd person interpretation.

⁷ Indeed, distance marking is not the only feature that qualifies something as deictic. Linguistic forms that are interpretable only in relation to particular time, place, person, or discourse context of the utterance are all deictic categories (Fillmore 1966, Lyons 1968). What seems to be of importance here is the fact of focusing the addressee's attention on some referent in the surrounding situation, but the distance of this referent is not necessarily of importance, especially if there are no competing similar referents located closer or further away. I would argue that in languages with both deictically contrastive and non-contrastive demonstratives

argue that *dies* ‘this’ is deictically non-contrastive, that is, it is not marked for distance, and yet it serves the same pragmatic function as demonstratives that are deictically contrastive: it focuses the hearer’s attention on entities in the speech situation, often in combination with a pointing gesture (unlike definite articles and 3rd person pronouns). Similar non-deictic demonstratives occur in other languages as well (see Diessel 1999). Diessel observes, however, that such non-deictic demonstratives can only occur in languages that have regular deictic demonstratives as well, at least in his sample of 85 languages.⁸ ASL appears to be one such language: it has both demonstratives that are distance-neutral (pre-nominal pointing signs at present referents) and demonstratives that are distance-marked (post-nominal pointing signs). In the following example from Bahan *et al.* (1995: 6), we see both:

- (4) IX WOMAN [IX] ^{variable path-length} BORROW VIDEOTAPE
 ‘That woman (more or less far away) over there borrowed videotape.’

In this example, the first pointing focuses the addressee’s attention on a specific woman who is the subject of the utterance, and is not marked for distance; the second pointing, however, is deictically contrastive and functions to specify the distance of the referent from the signer (the deictic center).⁹ To the best of my knowledge, pointing signs at the signer, at the addressee or at R-loci are not used with distance-marked adverbial demonstratives (as in English “You there...”)

Semantics: qualitative evidence. As for the qualitative features, the pre-nominal pointing at present referents can be marked for number, which is cross-linguistically most frequent non-deictic inflectional feature in demonstratives (Diessel 1999).¹⁰ Interestingly, Diessel (1999) observes that in languages that mark for number, gender and case pronominal demonstratives are always marked for those features whereas other kinds of demonstratives are often uninflected. Since both adverbial demonstratives and demonstrative identifiers (see below) do not inflect for number, I take it as an additional support for my assumption that pre-nominal pointing is pronominal demonstrative in nature.

There is some additional evidence that pointing signs that follow the noun are different from pointing signs that precede the noun. MacLaughlin (1997: 122, cited in Bernath 2009) gives examples demonstrating that while pre-nominal indices can be marked for plurality, post-nominal ones cannot:

- (5) IX-PL_i MAN IX ^{over there} KNOW PRESIDENT. ‘Those men over there know the president.’

the former are used if there are competing referent alternatives, and the latter when no such alternatives are present.

⁸ Another important point is that in such languages distance-neutral demonstratives are often reinforced with distance-marked demonstratives, as we see in ASL examples as well: e.g. THATMAN THERE, where the second pointing is not marked as distal and thus is phonologically identical to the first pointing. Its use may seem redundant since the first pointing already specifies the referent; however, its use here must serve the reinforcing function. Yet, I am not aware of any instances of 1st and 2nd person pointing reinforced with distance-marked pointing. This is potential evidence against the view that all person pointing in ASL is demonstrative (McBurney 2002).

⁹ Bahan *et al.* (1995) claim that this first index is a determiner. However, its deictic function supports the demonstrative interpretation. The authors also mention that the pre-nominal index is not obligatory with definite NPs, which also suggests that this pointing is not a determiner.

¹⁰ The second and third cross-linguistically most frequent inflectional markings on demonstratives are gender and case. However, there is no gender or case distinction in ASL.

(6) *(IX-PL_i) MAN IX-PL_i KNOW PRESIDENT.

Thus we see that pre-nominal pointing specifies the referent and can be marked for plurality, whereas post-nominal pointing indicates the distance of the referent from the deictic center (the signer), but cannot be marked for plurality. I conclude that these two types of pointing are in fact different kinds of demonstratives, pronominal and adverbial. The latter is outside of the scope of this paper, and I only mention it as evidence that ASL does have deictically-marked as well as deictically-neutral demonstratives.

Syntax. Here I present some evidence suggesting that pointing at present but non-addressed referents is pronominal demonstrative in nature, and not adnominal demonstrative. Adnominal demonstrative cannot stand on their own, only with a noun. However, it is important to note most languages do not formally distinguish between pronominal and adnominal demonstratives (Diessel 1999). In ASL pre-nominal pointing at present referents both occurs with a noun in a noun phrase (as in example (4) above) and on its own (especially in subsequent pointing at the same referent after it was already specified with a noun phrase such as ‘that woman there’). Additionally, pointing at present non-addressed referents can be used as independent pronoun in argument positions of verbs. Therefore, ASL probably belongs to the majority of languages in that it does not have separate categories of pronominal and adnominal demonstratives.

4.1.2 Demonstrative identifiers

The pointing signs that I claim to be demonstrative identifiers are used in nominal establishment where they follow an explicit naming by means of a lexical sign or fingerspelling. As has been described in section 2, these pointing signs are mandatory only if the sign that introduces the non-present referent is anchored on the body of the signer; in other cases, they are optional and can be omitted.

When an absent referent is first introduced in discourse, the signer usually either signs it or fingerspells its name and then points at a specific locus in signing space. Thereafter this locus is interpreted as this referent with each subsequent pointing. I claim that this very first pointing immediately following the introduction of the referent cannot be pronominal. This pointing neither co-refers with the preceding sign, nor carries a referential meaning on its own, but rather is used to assign the meaning of the preceding sign to a specific locus. The hypothesis is also supported by the fact that this pointing is obligatory only for signs that are produced on the body (such as MOM, signed with the thumb touching the chin). Signs that are not anchored to the body can be signed directly in the intended locus (instead of neutral signing space), or the locus can get a meaning assigned by an agreeing verb. Additionally, when there is no competing referent in the discourse, the pointing to a locus can get co-referenced with this referent by default. These cases show that this first pointing is just one of a number of devices used to *assign* a meaning to a locus, but not to *stand for* a referent, as in example (7) from the Akan language. In Akan, the demonstrative identifier ní(é) is used in non-verbal clauses together with a noun phrase which can consist of a single noun, a proper noun, or an extended noun phrase with specifiers such as possessives and modifiers, and it serves to identify a referent (either new or previously introduced) in a speech situation (Amfo 2007: 141, DID stands for ‘demonstrative identifier’):

(7) Wò àtáàdée kòkóó nó níé.
POSS dress red DEF DID
‘Here is your red dress.’

In ASL there is no pause between the lexical sign and the pointing sign, even though there often is a prosodic break between the sign and the pointing and the rest of the sentence following them, which implies that this pointing forms a constituent with the preceding sign, but not with the following signing. However, if we analyze this sign+point as a single unit, it is not clear what the combination is supposed to stand for. The construction only makes sense when taken together with the locus the meaning is assigned to. Thus, this pointing sign by itself is semantically vacuous, pragmatically inseparable from the preceding sign and the locus it points at, and syntactically restricted. I conclude that this pointing is a *demonstrative identifier*. This kind of demonstrative occurs in copular and nonverbal clauses and is used to introduce new discourse topics (Diessel 1999). Such clauses usually consist of an NP and a demonstrative identifier, and the NP consists of a proper noun, a head noun, an extended noun phrase and so on.

To sum up, the evidence I have presented thus far suggests that pointing at present but non-addressed participants is pronominal demonstrative in nature: pragmatically, it focuses the addressee's attention on an entity in the surrounding context; semantically, it is distance-neutral (and optionally reinforced with distance-marked adverbial post-nominal demonstrative) and marked for number; and syntactically, it occurs both with a noun in a noun phrase and on its own, and can be used as independent pronoun in argument positions of verbs. On the other hand, the first pointing in nominal-establishment constructions is demonstrative identifier in nature: it is used in a very restricted syntactic environment and is semantically empty – it assigns the meaning of the preceding sign to a specific locus, thus pragmatically specifying which locus in signing space is equated with the referent in question. In the following section, I argue that the subsequent pointing signs in nominal establishment, the signs I refer to as pointing signs at R-loci, are 3rd person pronouns.

4.2 Pronouns among the ASL 3rd pointing signs.

As was described earlier in this section, Bhat (2004) gives the following functional-formal criteria for pronouns: they denote speech act participants and link speech roles with case roles, they tend to be monomorphemic, do not specify their referents (and therefore do not take modifiers and complements), have a different notion of definiteness, and are anaphoric. 3rd person pronouns may seem as if they do not fit those criteria since they do not denote speech act participants; however, pronouns also connect speech roles with case roles (such as agent, beneficiary, etc.), and 3rd person pronouns do that as well. Due to a limited space I will address these criteria only very briefly, and focus almost exclusively on 3rd person pointing signs to R-loci.

Semantically, pointing signs at R-loci need a prior linguistic antecedent in order to be interpretable. Even when the locus gets its interpretation by default, as when there is no competing referent, an antecedent still needs to be introduced into discourse explicitly first. Therefore, they are different from demonstrative pointing signs that receive their interpretation through extra-linguistic means. The pointing sign itself thus is not specific and refers to whichever referent has been assigned to the locus, as opposed to pointing to a referent which is often as specific as possible to help the addressee locate the intended referent among all the possible ones in the surrounding context. Pointing signs at R-loci are not deictic: the actual location of an R-locus in signing space is arbitrary; the locus chosen usually depends on the handedness of the signer, the number of other R-loci already introduced into a discourse, and individual preferences. Syntactically, pointing signs at R-loci stand for entire NPs: they are stand-alone signs that cannot be modified with modifiers or adverbial demonstratives (Zimmer & Patschke 1990).

This section gave a very brief overview of some features of R-loci that correspond to those of personal pronouns of spoken languages. Pointing signs at R-loci have a linguistic antecedent, are

definite but not specific, stand alone and do not take modifiers and adverbial demonstratives, among other features. A more thorough examination of their properties is needed to definitely establish them as person pronouns, but even this brief overview gives some reasons to believe that they are.

4.3 Summary of the proposal

In this section I discussed certain cross-linguistic differences between demonstratives and pronouns and then evaluated available ASL data in the light of those differences. The distinction between demonstratives and pronouns goes beyond which ones are deictic and which ones are anaphoric: pronouns denote speech role participants whereas demonstratives only specify participants of events; pronouns tend to be monomorphemic, demonstratives often consist of two elements of which one specifies their function and the other denotes their category or scope; pronouns are dissociated from their referents, but demonstratives encode additional information about their referents (Bhat 2004).

I claim that any similarity in surface form of the pointing signs is due to homophony, and that despite the similarity in form, these signs have significant differences in their distribution and function and thus should not be treated as one group. In my proposal, pointing signs at present but non-addressed participants are *pronominal demonstratives*: they are deictic elements that are used to direct the addressee’s attention to a specific referent in the utterance situation, they characterize their referents (e.g., number), and they occur both with a noun in a noun phrase and on their own. The first pointing in nominal-establishment constructions is a *demonstrative identifier*: a semantically empty and syntactically restricted element that assigns the meaning of the preceding sign to a specific locus thus pragmatically specifying which locus in signing space is equated with the referent in question. The pointing signs at R-loci are the only signs that can be considered candidates for *pronouns*: they have a linguistic antecedent and thus are anaphoric, they stand for entire NPs, they are stand-alone signs and do not take modifiers and adverbial demonstratives.

Table 2. Some differences between pointing signs at present referents versus pointing signs at R-loci

Pointing signs at present referents	Pointing signs at R-loci
Specify referents in speech act situation	Denote speech act participants
Characterize their referents	Do <i>not</i> characterize their referents
Appear in DPs	Stand for entire DPs
Do <i>not</i> have a linguistic antecedent	Require a linguistic antecedent
Are deictic	Are anaphoric

5 Where does this difference come from? The two uses of signing space

Where does this distinction between 3rd person pointing signs at present versus non-present referents come from? I suggest that it comes from two different uses of space routinely employed in ASL. Signers use the signing space around them for a variety of grammatical uses. Grammatical use of space is mostly referential, also called *spatial syntax* (used for verb agreement, pronominal reference, role shift, number incorporation and so on; the underlying morphological paradigm for all these uses is the same (see Janis 1989 for detailed discussion)). However, signers often use signing space in a very different way – for *spatial mapping*. In spatial mapping the signing space around the signer is used topographically, to represent spatial relationships between referents. Schick (1987, quoted in Janis 1989) labels these two different uses of space *model space* (for spatial

syntax) and *real space* (for spatial mapping).¹¹ These two uses of space have very different properties and the language phenomena that employ one of those should be treated differently from each other.¹² Real space represents real-life spatial relationships between objects, referents, and locations. This use of space is meaningful in that any change to the configuration of the established loci can bring a change of meaning. Thus, studies show that when signers use this kind of space, there is very little phonetic variation (Janis 1989). In contrast, model space uses physical differences in space to represent non-spatial differences in language. There is a lot of phonetic variation in this use of space, as slight change of pointing to the left or right does not in general change the meaning. I claim that 3rd person pointing signs to present but non-addressed referents make use of real space, and thus their function is much closer to that of demonstratives at least because this pointing at the referents is strictly deictic.¹³ On the other hand, 3rd person pointing signs to non-present referents through the use of spatial loci make use of model space, and their function is both deictic (as they actually point at a specific locus in space) and anaphoric (as by pointing at a locus, they actually pick up a referent and not the locus itself); thus their function is akin to that of pronouns.

6 Conclusion

In this paper I examined two different kinds of 3rd person pointing signs in ASL: signs pointing at present referents and signs pointing at previously established referential loci for non-present referents. I showed that there are certain pragmatic, semantic, and syntactic differences between the two, and therefore they should be treated differently: the former as demonstratives and the latter as personal pronouns.

Additionally, I show that two dominant approaches in the current literature, one that claims all person pointing is gestural and one that claims that 3rd person pointing signs are only instances of non-1st person in ASL, are not satisfactory in explaining the two uses of 3rd person pointing signs. I propose that the two kinds of 3rd person pointing signs come from two different uses of signing space available to ASL signers: the model space and the real space. This is an interesting modality-specific feature, and it should be subject to further investigation.

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¹¹ More recently these two uses of space received attention in Hudson Kam, Goodrich Smith & Black (2014), who label them *grammatical* and *lexical* uses of space, respectively. They favor the term *lexical space* over *real space* because the representation of entities in real space is not really real, or only real in relative terms; that is, relative spatial relationships are what is being conveyed.

¹² For example, Janis (1989) demonstrates how different classes of ASL verbs that have different inflectional patterns are different because they make use of either real space, or model space. Schick (1987) also mentions the same pattern for classifiers.

¹³ Of course, such use of space is not exactly map-like, as is usually the case for use of real space. However, it is still a variety of real space, where the mapping is one-to-one: the signer is where the signer stands; the non-addressed participant is where the non-addressed participant stands. Some researchers claim that this is in fact a third type of space, *actual space*. I follow Janis (1989) in not adopting this analysis for pointing to present referents (her argument is based on the use of those present referents in role shift).

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