

## Backgrounded agents in sign language: passives or impersonals?

Gemma Barberà and Patricia Cabredo Hofherr

UMR 7023 (CNRS / Paris 8)

Manuscript – 23 September 2015

### 1 Introduction

Agent-backgrounding constructions have been intensively studied in the linguistic literature on vocal languages and passive constructions, in particular, have been the focus of many studies (see e.g. Siewierska 1984; Keenan & Dryer 2007 and references cited there). For sign languages, however, it is not clear what if any constructions should be analysed as passives. In this article we examine the two agentless structures in (1) and (2), as these types of structures have been explicitly analysed as passive constructions in several sign languages.

- \_\_\_\_rs:police
- (1) POLICEMAN 3-HIT-1  
 ‘The policeman got hit.’ (ASL, Kegl 1990: 166)
- (2) JAR SAME AGAIN 1-TAKE<sub>c</sub>  
 ‘Those same jars can be taken down again.’ (ISL, Saeed & Leeson 1999: 23)

The example in (1) includes a verb that agrees with the body of the signer, which functions as the patient argument. Additionally, the construction involves role shift, a mechanism typical from sign languages where the signer uses her body to adopt the role of a character of the story (Lillo-Martin 1995). This structure has been analysed as a passive for American Sign Language (ASL) (Kegl 1990, Janzen et al. 2001) and Irish Sign Language (ISL) (Saeed & Leeson 1999).<sup>1</sup> The example in (2) illustrates another construction that has been analyzed as a passive in ISL (Saeed & Leeson 1999). This construction is characterized by the use of the neutral signing space in front of the signer’s body (indicated by the subscript *c*). In (2) the Determiner Phrase (DP)

corresponding to the theme argument is not associated with a specific locus in signing space (as commonly expected for referential DPs), and the verb is articulated in neutral signing space.

Basing our evidence on Catalan Sign Language (LSC) data, we claim that – at least for LSC – two agent-backgrounding operations with different syntactic and semantic properties have to be distinguished: the HIGH LOCUS CONSTRUCTION and the NON-AGREEING CONSTRUCTION. In the High locus construction an agreeing verb appears without a lexical subject with verbal subject agreement established with a high lateral locus (glossed *up* in (3)), while in the non-agreeing construction, a non-agreeing verb is articulated in central signing space without a lexically introduced subject (4).

(3) BIKE<sub>c</sub>STEAL-3<sub>up</sub> (LSC)  
 ‘They stole the bike.’

(4) POT FLOWER BREAK<sub>c</sub>. (LSC)  
 ‘The flower pot broke.’

Based on the syntactic and semantic properties of the construction in (1) and the information structure status of the DP in (1), we claim that the structure does not involve reduction of transitivity and that there is no evidence that the object is promoted to subject. This means that the High locus construction does not behave as a passive construction. According to our analysis, the agent backgrounding effect in (1) is not due to argument reduction in the argument structure resulting in an intransitivized structure, but to a referentially deficient subject without any change in transitivity. According to our analysis the structure in (1) is a transitive construction with an unspecified agent, where the DP corresponds to a topicalized object, analogous to the Spanish example in (5).

(5) Al policia, Ø le pegaron. (Spanish)  
 to-det policeman [ ] 3sg.dat hit.pfvpst.3pl  
 ‘The policeman, they hit him.’

The Non-agreeing construction differs from (1) in that it is compatible with a wide range of readings including anticausative, middle-stative and eventive-passive readings. We propose to analyse this structure as an intransitive non-active construction comparable to a middle verb allowing anticausative, stative middle and middle passive readings. Neither construction is therefore a passive proper: the High locus construction in (3) is a transitive construction with an R-impersonal subject while the Non-agreeing construction (4) is an intransitive non-active construction allowing anticausative readings as well as agent-suppressing middle and passive readings. We further show that some variants of the structure in (1) can be ambiguous between an impersonal reading and a reflexive reading. We provide evidence that a number of factors can be used to disambiguate between the two interpretations, including presence of role shift, averted eyegaze, overt body lean and distance of the articulation of the predicate from the body of the signer.

The article is structured as follows. Section 2 briefly summarises a number of salient properties of sign languages with respect to reference and argument structure that have been identified in the literature. Section 3 reviews the previous literature on potential passive structures in different sign languages, identifying a range of features associated with different agent-backgrounding constructions. Section 4 gives a succinct summary of the contrasts between passive constructions and R(eferential)-impersonal subjects cross-linguistically. Section 5 analyses the syntactic and semantic properties of two agent-backgrounding constructions in Catalan Sign Language (LSC) – the High locus construction and the Non-agreeing construction - and develops the syntactic analysis. Section 6 compares the High locus construction to reflexives, which cross-linguistically are a common source of agent backgrounding, and it provides tests to disambiguate between a reflexive and an R-impersonal reading. Section 7 concludes.

## 2 Reference and argument structure in sign languages

Sign languages make use of the three dimensional space in front of the signer's body for grammatical purposes. Signs are articulated in the signing space, which in Western sign languages is generally constrained to the horizontal and the frontal plane in front of the

signer's torso; the body of the signer is also a possible location for the articulation of the signs and as such included in the signing space. As Klima and Bellugi (1979) stress, it is important to note that signing space is not only used for articulatory reasons as the space where the hands and arms can move but, more importantly, the signing space carries linguistic meaning. At the morphosyntactic level, for example, signs are modulated in space for grammatical purposes to express number, person, and also the arguments of the verb. Based on the patterns of modulation observed, Padden (1990) classifies ASL verbs into three different types: plain verbs, agreement verbs and spatial verbs. Agreement and spatial verbs use space to express agreement. According to Padden, the main difference between the two is that agreement verbs inflect for person and number, with the locations in space indicating subject and object. In contrast, spatial verbs make reference to locations; that is, to the initial and final location of the entity being moved or to the location where an entity is. Plain verbs differ from both agreement verbs and spatial verbs in that the sign does not inflect for their arguments.

In a sentence like (6a) below, the subject is established in the ipsilateral area of signing space (the area located at the dominant hand of the signer, i.e. the right hand for right-handed signers, glossed with a subscript *ip*), while the object is established in the contralateral area (the area located at the non-dominant hand, i.e. the left hand for right-handed signers, glossed with a subscript *cl*). The agreement verb SEE in (6a) then moves from the ipsilateral locus of the subject to the contralateral locus of the object. The direction of the movement component of the predicate has a grammatical meaning as it marks the syntactic functions of subject and object: for the verb SEE the movement path is from subject to object. Inverting the movement path associated with the verb as in (6b) inverts subject and object function of the arguments.

(6) a. JOAN<sub>ip</sub> MARIA<sub>cl</sub> 3<sub>ip</sub>-SEE-3<sub>cl</sub>. (LSC)

'Joan saw Maria.'

b. JOAN<sub>ip</sub> MARIA<sub>cl</sub> 3<sub>cl</sub>-SEE-3<sub>ip</sub>.

'Maria saw Joan.'

As for three-argument predicates, two options are possible. On the one hand, verbs may mark agreement with subject and indirect object (leaving aside the marking for the direct object), as shown in (7) where the verb GIVE is articulated in its basic form. On the other hand, verbs may be expressed with classifier predicates, which consist in morphologically complex signs where the three-argument predicates are incorporated in the same single sign (8). The direct object is instantiated by the handshape, while the subject and the indirect object are instantiated by the initial and the final movement path (as in the neutral form of the verb) (see Geraci & Quer (2014) for an overview of existing analyses of argument structure in sign languages, and Mathur & Rathmann (2012) for several theoretical approaches of sign language agreement).

(7) JOAN<sub>ip</sub> MARIA<sub>cl</sub> BOOK 3<sub>ip</sub>-GIVE-3<sub>cl</sub>. (LSC)

'Joan gave a book to Maria.'

(8) JOAN<sub>ip</sub> MARIA<sub>cl</sub> BOOK 3<sub>ip</sub>-CL<sub>hand</sub>.give-3<sub>cl</sub>.

'Joan gave a book to Maria.'

Classifiers predicates may come into different kinds and we will focus here on the two kinds of classifiers that are crucial for the purposes of the present article. Handling classifiers are considered to be transitive verbs, with an internal and an external argument instantiated in the handshape. On the other hand, entity classifiers correspond to intransitive unaccusative verbs, with one single internal argument only. The empirical arguments for this correlation are based on a number of tests targeting internal and external arguments (Benedicto & Brentari 2004). Some of these tests will be further presented in section 5.

### 3 Previous studies on passives in sign languages

Previous studies have analysed a number of different structures as passive constructions in sign languages. For ASL, for instance, Kegl (1990) analyses the structure illustrated in (9) as a passive, taking the use of handling classifiers and role shift to be key features of the structure (Kegl 1990: 166).

(9) POLICEMAN AT-HIT. (ASL, Kegl 1990: 166)

'The policeman got hit.'

Kegl argues that the verb in (9) is detransitivised: the form AT-HIT<sup>ii</sup> is articulated with the final configuration of the sign at the signer's body, with role shift to the patient of the verb, while at the same time the locus associated with the subject disappears. This contrasts with the basic transitive use of HIT in (10), in which the verb is articulated with a path movement from the locus associated with the subject THIEF and towards the locus associated with the object POLICEMAN.

(10) POLICEMAN<sub>ip</sub> THIEF<sub>cl cl</sub> HIT<sub>ip</sub> (ASL)

'The thief hit the policeman.'

According to Kegl's description, the construction exemplified in (9) contains a single spatial location associated with the object of the verb and lacks any path movement: the form is articulated entirely at the final object location. As there is role shift to the object argument, the articulating hands are directed towards the body of the signer with a reduced movement path close to the body of the signer. This final movement close to the signer is not due to agreement with a subject locus as in the basic transitive use in (10) but a residual movement due to the articulation of the verb itself.

Following up on Kegl's study, Janzen et al. (2001) define passives as a functional category of agent backgrounding (2001: 288). They explicitly adopt a semantic definition of transitivity taking weakly referential subjects to correspond to a reduction in (semantic) transitivity. Consequently, for Janzen et al. sentences with subjects like "someone" or a semantically empty subject locus are passives as the subject is backgrounded. This definition of *passive* is therefore independent of the syntactic properties of the grammatical subject. Janzen et al. take the prototypical passive in ASL to be characterised by the following properties (2001: 288-290). Firstly, the signer presents the clause from the point of view of the patient. In a transitive construction the point of view is that of the agent, while in the passive the signer shifts to the role of the patient and the agreement is marked with the final locus of the verb movement on the body of the signer, implying a shift in perspective towards the patient argument.

Secondly, the agent is demoted, in one of two ways: (i) either the agent is expressed by a noun phrase that is low in referentiality, expressed with the signs SOMEONE or WHO ('someone') or (ii) no lexical agent is specified, and the movement of the agreement verb begins at a morphosyntactic, but semantically empty, locus. An example of agent demotion by a DP with low referentiality is given in (11) with the particle WHO functioning as an indefinite pronoun. Agent demotion with an empty locus for the subject is illustrated in example (12). The movement of transitive verbs still begins at a morphosyntactically marked locus (indicated by subscript *cl* on the glosses); however, this locus is not associated with any previous semantic content.<sup>iii</sup>

(11) WHO <sub>ip</sub>APPROACH-1, CLERC, 1-LOOK-AT<sub>ip</sub> FIRST DEAF TEACHER.

'Clerc was approached by the first Deaf teacher.'

(ASL, Janzen et al. 2001: 303, ex 12)

(12) <sub>cl</sub>GIVE-1 TROPHY.

'We were given the trophy.'

(ASL, Janzen et al. 2001: 293, ex 6)

For Janzen et al., the empty subject locus in passive constructions is overtly marked as the starting point of the agreement movement at a marked spatial location, but semantically unfilled since no agent is previously specified. According to this description, the movement of the verb in (12) is not reduced (in contrast with the structures like (9) studied by Kegl); the verb is therefore not syntactically detransitivised, as a distal locus is overtly specified (if semantically empty).

Building on the work by Janzen et al. (2001), Saeed & Leeson (1999) focus their analysis on Irish Sign Language (ISL) and identify two strategies for demotion of the agent. Demotion 1 is the more frequent type of demotion and it is a structure formed by agreement verbs. The locus for the subject is established at a syntactically marked but semantically empty locus (indicated in the glosses with *ip* for ispilateral) and the sign is articulated towards the locus for the object (1999: 14). Such a case is illustrated in (13) below, where the locus for the subject of STARE has not been established and therefore a non-specified human entity is implied.

- (13)  ${}_{ip}STARE_c$   
 ‘Someone was staring at me.’ (ISL, Saeed & Leeson 1999: 15, ex 13)

Like Janzen et al., Saeed and Leeson discuss examples where the movement path of the agreement verb establishes a subject at a higher location in signing space. For example, in a backwards verb like TAKE (interpreted as ‘take-from’), the form is articulated with an onset point at the locus established for the bag, and an offset point at a higher plane in signing space. A high location in signing space for subject agreement is a crucial feature of these structures.

- (14) BAG TAKE<sub>up</sub>  
 ‘The bag was taken.’ (Demotion 1, ISL, Saeed & Leeson 1999: 16, ex 14c)

In Demotion 1 structures, eyegaze plays an important role in conveying perspective. Averted eyegaze of the signer towards a lateral location indicates role shift of the signer to take the role of the patient. When the eyegaze of the signer is directed towards the addressee or towards a particular location, it indicates that the signer assumes the role of the agent. Saeed and Leeson conclude that averted eyegaze marks lack of involvement in the event and lack of intentionality (S&L 1999: 18).

Saeed and Leeson (1999) describe a second kind of detransitivization they call Demotion 2. This structure is characterised by the use of canonical space (neutral central signing space) as the non-specified agent locus for agreement verbs (1999: 23). This central neutral location seems to be serving as a default location for agent-type action and it is clear that the signer is not the actor (1999: 25).

- (15) JAR SAME AGAIN 1-TAKE [move to c.]  
 ‘Those same jars can be taken down again.’  
 (Demotion 2, ISL, Saeed & Leeson 1999: 23)

Finally, Saeed and Leeson also present a third facet of detransitivisation they term *promotion of the undergoer*. This strategy, which mainly co-occurs with demotion 1, arises when the signer’s body functions as the undergoer. It is expressed with the palm orientation towards the signer, with this being the opposite of the citation form of the



sign. Averted eyegaze also plays a role in undergoer promotion showing lack of intention or awareness in the part of the undergoer, as also seen in demotion 1 structures (S& L 1999: 29)

(16) ME BEFORE-BEFORE BEAT-UP<sub>c</sub>. (ISL, Saeed & Leeson 1999: 28)  
 'I was beaten up.'

The two demotion strategies described by Saeed & Leeson (1999) clearly differ with respect to the locus of the unspecified actor (a high locus in Demotion 1 and a central locus in Demotion 2). Both demotion strategies co-occur with averted eyegaze. Both Demotion 1 and Demotion 2 involve a shift to the perspective of the undergoer for animate patients, while this shift is not necessary for inanimate undergoers (Saeed & Leeson 1999: 22).

Role shift and articulation in a neutral locus are also observed in studies on other sign languages, such as German Sign Language (DGS) and French Sign Language (LSF). In his study of LSF, Guitteny (2006: 311) identifies two strategies of subject demotion for transitive verbs that resemble Saeed & Leeson's Demotion 1 and 2: one structure with role shift of the signer to the undergoer and a second structure without role shift and articulation of the sign from a neutral locus to the locus specified for the undergoer. For DGS, Hansen (2007) explicitly argues that this language does not have a (syntactic) passive. However, like the preceding studies, she identifies role-shift and averted eyegaze as marking a backgrounded actor with two animate arguments.

Following up on the studies by Kegl and Janzen et al., Sze (2010) notes that these authors consider argument reduction for agreeing verbs using examples that typically include animate subjects and objects. Consequently, Sze (2010) examines argument backgrounding with inanimate patients in Hong Kong Sign Language (HKSL), including plain verbs as well as agreement verbs. Based on data from an elicitation task, Sze concludes that agreeing verbs with animate patients differ from examples with inanimate patients in HKSL. For animate patients the signer shifts to the role of the patient, while for inanimate patients the difference between an indefinite subject and an empty subject is marked on the classifier. If the clause contains an agent (mostly expressed with the indefinite pronoun SOMEONE), there is a strong tendency for the handling classifier predicate to begin with a grasping action followed immediately by

the predicate movement. In contrast, for agentless handling classifier predicates, there is no such grasping action and the movement path tends to be shorter.

(17) SOMEONE CL-grasp-and-move-food-tray

‘Someone moved the tray.’

(18) CL-move-food-tray

‘The food tray was moved.’

(HKSL, Sze 2010: ex. 2a/b)

Sze notes that the agentless construction in HKSL is heavily constrained. Firstly, “the agent must not be known or seen” – if the agent can be seen in the pictures used for elicitation, the signers use the subject SOMEONE. Secondly, the interpretation in which the signer is the agent has to be clearly excluded by non-manual marking and contextual clues. Sze further points out that examples with inanimate patients often occur with a resultative marker glossed as FINISH or ALL-DONE.

(19) a. IX-that T-shirt WRING FINISH.

‘That T-shirt was wrung out.’

b. IX-that (bicycle) REPAIR ALL-DONE.

‘That bicycle was repaired well.’

(HKSL, Sze 2010: ex 4/5)

The studies discussed here examine different properties that play a role in agent-backgrounding constructions, with different studies focusing on different subsets of properties. The table below summarises the properties taken to be definitional of agent backgrounding in the different sign languages.

	Kegl (ASL)	Janzen et al. (ASL)	Saeed & Leeson (ISL)		Guitteny (LSF)		Sze (HKSL)	
			Demotion 1	Demotion 2	Constr. 1	Constr. 2	Animate	Inanimate
Syntactically marked locus (semantically empty) – agreement verbs		+	+	+		+		
Use of central neutral space				+				
Role shift	+		+ (with animate)	+ (with animate)	+		+	-
Averted eyegaze			+	+	+		+	
High location of agent		+	+	-			-?	-
Distance from body	+							
Perfective Marker								+ (for activities)

Table 1. Characteristic properties of agent-backgrounding constructions

Taking into account the whole range of properties presented above, we show in section 5 that LSC has at least two syntactically and semantically distinct agent-backgrounding constructions: the High locus construction and the Non-agreeing construction. The High locus construction involves agreement verbs agreeing with a high subject locus that has not been previously established. The Non-agreeing construction on the other hand, involves non-agreeing verbs that are articulated in neutral signing space in front of the signer’s body.

Before we develop our proposal, we will briefly review the properties we take to distinguish between argument-reducing passives on the one hand and transitive constructions with R-impersonal subjects on the other.

#### 4 Agent backgrounding operations: Passives vs. Impersonal subjects

Agent-backgrounding is a semantic notion that may be expressed by diverse syntactic constructions, such as impersonal subject pronouns (20a, such as French *on* or German

*man*) and passive constructions that suppress the syntactic realization of the agent argument (20b).

- (20) a. On a volé mes vélos. (French, impersonal subject  
 on has stolen my bikes pronoun)  
 ‘They stole my bikes.’
- b. Mes vélos ont été volés. (passive verb)  
 my bikes have been stolen.  
 ‘My bikes have been stolen.’

In (20a) above, the impersonal subject shows the characteristic properties of a subject of a transitive sentence: the subject *on* occupies the same slot as other subject clitics and it determines 3sg agreement on the auxiliary *a* “has”, the DP *mes vélos* “my bikes” is in direct object position following the verb and can be replaced by an accusative clitic *les* (pron.acc3pl). In (20b), the logical object of the verb has been promoted to syntactic subject: the DP *mes vélos* “my bikes” precedes the verb and triggers 3pl agreement on the auxiliary *ont* (and agreement on the participle, which is audible with feminine DPs). Notice that the clearest syntactic diagnostics distinguishing sentences with R-impersonal subjects from sentences with a passive construction bear on the lexical DP corresponding to the underlying object. With intransitive verbs - that lack such a DP - is therefore not always clear if an agent-backgrounding construction like (21) is to be analysed as a transitive construction with an impersonal subject or as a passive with a suppressed agent argument, as in the German examples (22) and (23) respectively.

- (21) Aquí se trabaja mucho. (Spanish)  
 here refl work.prs.3sg a-lot  
 ‘Here a lot of work is done. / Here people work a lot.’
- (22) Hier arbeitet man viel. (German, impersonal subject pronoun)  
 ‘Here one works a lot.’

- (23) Hier wird viel gearbeitet. (German, impersonal passive)  
 here aux.passive.prs3sg a-lot worked  
 'Here a lot of working is done.' (Lit. 'Here is worked a lot.')

This ambivalence between R-impersonal subject and passive constructions also arises for sign languages. For LSF, e.g., Guitteny (2006) proposes to analyse agreement verbs with a neutral actor locus as passives, in contrast with Cuxac (2000: 199), who analyses this type of construction as the equivalent of the impersonal subject pronoun *on* in French.<sup>iv</sup>

Simplifying somewhat, we will use the following properties to distinguish between impersonal subject constructions and passives:<sup>v</sup>

- (24) R-impersonal subject:  
 a. transitive syntax  
 b. syntactic object properties for the logical object
- (25) Passive verb:  
 a. intransitive syntax  
 b. syntactic subject properties for the logical object

We further adopt the definition of passives proposed by Keenan and Dryer (2007), according to which passives reduce the valency of the underlying predicate by suppressing the logical subject argument.

- (26) In a prototypical passive  
 a. the subject of the passive clause is the direct object in the corresponding active;  
 b. the subject of the active clause is left unexpressed in the passive version;  
 c. the verb is marked passive.

For impersonal human subjects we adopt the definition of R-impersonal pronouns in Siewierska (2011):

(27) R(eference)-impersonals are impersonals triggered by a reduction in referentiality. R-impersonals have the appearance of regular, personal constructions but feature a subject that is human and non-referential.

(Siewierska 2011: 57)

So syntactically, in prototypical passives the underlying verb is intransitivised while R-impersonal subjects do not change the syntactic valence on the underlying verb.

Passives and R-impersonals also differ semantically, namely in the range of interpretations available for the backgrounded agent. Passives can have animate and inanimate implicit agents (28a), while R-impersonals are limited to human interpretation (28b):

- (28) a. The window was opened (by the woman / by the wind)  
 b. On a ouvert la fenêtre. (human agent only)  
 on has opened the window.  
 ‘Someone opened the window.’

Using the distinction between passives and R-impersonal subjects outlined here, we will now examine the syntactic and semantic properties of two agent-backgrounding constructions in LSC.

## 5 Two agent-backgrounding constructions in LSC

As shown in section 3, the studies of agent-backgrounding in ASL, ISL, LSF, DGS and HKSL consider different subsets from the range of characteristic properties summarised in (29).

- (29) a. empty locus for the subject with agreement verbs  
 b. high location of empty agent locus  
 c. use of central neutral space  
 d. role shift to the undergoer (animate undergoer)  
 e. averted eyegaze

- f. distance from the body
- g. perfective marker (with inanimate undergoer)

In our study of LSC we take the whole range of properties in (29) into account. In what follows we will give evidence that for LSC at least two different agent-backgrounding structures have to be distinguished: the *High-locus construction* and the *Non-agreeing construction*. The High-locus construction is characterised by the following properties:

- (30) High locus construction:
- a. agent is left unexpressed;
  - b. featured by an inflected verb (agreement verbs and plain verbs);
  - c. agreement between a high locus for the subject argument that has not been previously activated and
    - i. the body of the signer, which functions as the patient (with animate patients), or
    - ii. neutral signing space (with inanimate patients);
  - d. with animate patients: role shift of the signer to the patient, marked by averted eyegaze and body lean.

This construction shares properties with the construction considered in Kegl (1990), the agentless construction in Janzen et al. (2001) and the construction termed Demotion 1 together with promotion of undergoer in Saeed and Leeson (1999). An example in LSC is provided in (31), adapted from the ASL example (9) taken from Kegl (1990).

- \_\_\_averted eyegaze/body lean  
 \_\_\_\_\_rs:police
- (31) POLICEMAN 3<sub>up</sub>-HIT-1 (LSC)  
 ‘They hit the policeman.’

The Non-agreeing construction in LSC is characterised by the properties listed in (32) and it is exemplified in (33).<sup>vi</sup>

- (32) Non-agreeing construction:
- a. the agent is left unexpressed;
  - b. it is featured by a non-inflected verb;
  - c. inanimate patient;
  - d. the sign is articulated in neutral space in front of the signer;
  - e. it may be followed by the perfective marker.

- (33) HOUSE BUY<sub>c</sub> ALREADY. (LSC)  
 'The house was bought.'

For LSC the High locus construction and the Non-agreeing construction represent two distinct constructions as shown by the fact that there are minimal pairs involving the same predicate as in (34a/b). Example (34a) is an instance of the Non-agreeing construction (cf. Figure 1a). This example shows the default articulation of plain verbs in neutral signing space (in front of the chest of the signer, and indicated in the glosses with *c*), without movement between locations for subject and object. In (34a) the agent is not previously introduced by a lexical sign. This articulation is often – but not obligatorily – followed by the resultative marker ALREADY. The default articulation for plain verbs in (34a) contrasts with the inflected realisation of plain verbs in (34b). In this example the plain verb is transitivity and the final articulation is directed towards a lateral and high location in signing space (cf. Figure 1b). This transitivity form of the plain verb establishes a marked location for the subject and triggers a transitive reading. As the patient in (34b) is inanimate, there is no role shift.

- (34) a. POT FLOWER BREAK<sub>c</sub> ALREADY. (LSC)  
 'The flower pot broke.'
- b. POT FLOWER BREAK-3<sub>up</sub>.  
 'They broke the flower pot.'



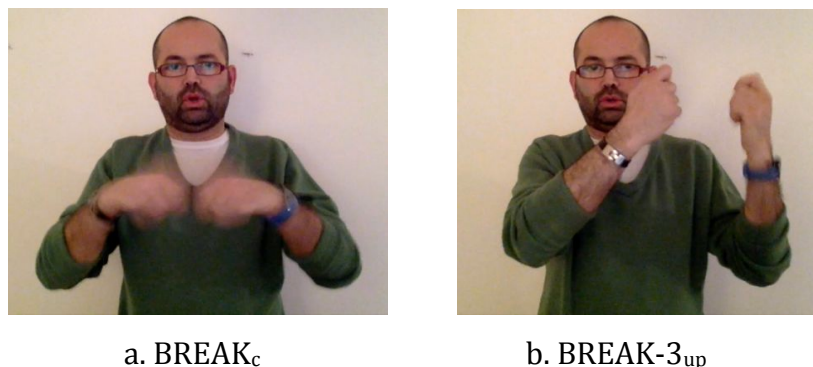


Figure 1. Non-agreeing construction and High locus construction for the plain verb BREAK

The patient in the High locus construction may be animate or inanimate. In the first case, the verb agrees with the body of the signer (which functions as the patient) and it is expressed with role shift (35). In contrast, with inanimate patients, no role shift is found as the verb agrees with a neutral location established in the center of signing space and with a high location established for the subject (36).

\_\_\_\_br \_\_\_\_\_rs:maria  
 (35) MARIA MEETING PREPARE 3<sub>ip.up</sub>-CONVENE-1. (LSC)  
 'Maria was preparing for the meeting and they convened her.'

\_\_br  
 (36) BIKE, <sub>c</sub>STEAL-3<sub>up</sub>. (LSC)  
 'They stole the bike.'

We do not consider role shift a defining property of the High locus construction (unlike the analyses of agent-backgrounding constructions in Kegl 1990, and Saeed & Leeson 1999). Following Sze (2010) we propose that the use of role shift is an epiphenomenon triggered by animate patients. In general, sentences with inanimate themes/patients do not contribute to role shift structures (with the exception of poetical and storytelling contexts, that are also known to license animate interpretation for inanimate objects in spoken languages).

We propose that the High locus construction is a transitive construction with an R-impersonal subject while the Non-agreeing construction is an intransitive non-active

construction comparable to a middle verb allowing anticausative, stative middle and middle passive readings. In the subsequent sections we will examine the two constructions showing that they differ with respect to some defining syntactic and semantic properties, such as agentivity, transitivity and the restriction of the backgrounded agent to humans. These tests will be applied to LSC (the primary language object of this study). We also test an analogue of the High locus construction in Italian Sign Language (LIS) as this language marks grammatical function, which makes it possible to test for object promotion in the construction. We will first start by analysing the semantic restrictions and possible interpretations of each construction.

### *5.1 Semantic restrictions*

As we have seen in section 4, in passive-like constructions the backgrounded agent may be both animate and inanimate, while R-impersonal subjects are limited to human agents.

- (37) a. John was hit by Bill/the stone.  
 b. They hit John. (human agent only)

Moreover, in passive-like constructions the patient may also be both animate and inanimate.

- (38) John/The door was hit by Bill/the stone.

The High locus construction patterns with R-impersonal subject constructions in this respect: the backgrounded agent has to be human. It has been shown independently that in LSC the high location of referents is associated with low referentiality and non-specificity (Barberà 2012), supporting an analysis of the high subject locus as a referentially deficient R-impersonal subject.

The Non-agreeing construction, on the other hand, is not limited to human agents. A transitive plain verb in LSC like BREAK is usually signed in neutral signing space: this articulation is compatible with continuations assuming natural causes (39a) (which is the preferred reading according to our informants), an inanimate cause (39b),

an animate agents (39c), or no agent at all (anticausative, 39d). The interpretative range of the non-agreeing construction therefore corresponds to the range of argument reducing interpretations found cross-linguistically with middles allowing passive and anticausative interpretations.

(39) POT BREAK<sub>c</sub> ALREADY.

‘The pot broke.’

a. WIND STRONG.

‘The wind is strong.’

b. WINDOW CL<sub>ent.open</sub>.

‘The window opened’.

c. JOHN CLUMSY.

‘John is clumsy.’

d. SPONTANEOUS.

‘It happened spontaneously.’

Our analysis of the high subject location as an R-impersonal pronoun is supported by the minimal pairs contrasting plain and inflected articulation of plain verbs. When inflection is added to an agentless plain verb, inflection is towards a high locus, corresponding to the High locus construction. In the following example, the verb BREAK, which lacks path movement in its plain articulation, is articulated in a lateral and upper location, as shown in Figure 1b. Excluding topographical and contrastive interpretations (e.g. an interpretation where the actual position of the object in space is mapped to the location associated in the discourse like “The pot on the upper left was broken”, or a contrastive use such as “That particular pot, not the other, was broken”), an inflected form gives rise to an R-impersonal interpretation with a human agent reading (40a). According to our informants, interpretations (40b) and (40c) are only possible if the context is derived from a topographic use of space and thus the higher articulation of the verb reflects the mapping of the position of the object in space (in a high location to the left). When the

use of signing space is not biased by the mapping of the position of the object in space, the interpretation is limited to a human causer (40a).

(40) POT BREAK<sub>up</sub>

'They broke the pot.'

a. JOHN CLUMSY.

'John is clumsy.'

b. #WIND STRONG.

'The wind is strong.'

c. #WINDOW CL<sub>ent</sub>.open.

'The window opened.'

Summarising, we may say that in the High locus construction the agent needs to be human and unspecified while the Non-agreeing construction is compatible with backgrounded agents corresponding preferentially to a natural cause (although inanimate and animate agents are also possible) and anticausative readings without an implied cause or agent. As for the patient argument, the High locus construction allows both animate and inanimate arguments, while the Non-agreeing construction is restricted to inanimate patient arguments. The restriction to inanimate patients observed for the Non-agreeing construction is not typical of passives. However, a strong preference for inanimate patients is also observed for argument reducing readings of reflexive middle constructions in Romance and Slavic (Cabredo Hofherr, to appear). This restriction would therefore be compatible with an analysis of the Non-agreeing construction as a middle construction with anticausative, stative middle and middle passive readings. The following table summarises the main findings with respect to the semantic restrictions for the agent and the patient in each construction.

	Agent	Patient
High locus construction	Human Unspecified	Animate (expressed with role shift) Inanimate (articulated in neutral signing space)
Non-agreeing construction	Natural Inanimate Human Absent	Inanimate

Table 2. Semantic restrictions on agent and patient in the two constructions

## 5.2 Agentivity

In what follows we will apply well-known tests to establish the presence of an agentive, external argument, using the type of classifier as an indicator of an agentive interpretation and compatibility with purpose clauses, negative imperatives, modification by agent-oriented particles (like *deliberately* / *carefully*). We will examine each of these tests in turn, showing that the agent is semantically active in the High locus construction. The Non-agreeing construction is compatible with expressions oriented towards a volitional agent. However, such modification then blocks the otherwise preferred interpretation of the Non-agreeing construction as involving with a natural or inanimate cause.

### 5.2.1 Handling classifiers

The High locus construction is most commonly expressed with a handling classifier or an agreement verb. Entity classifiers may also be used in the High locus structure, but they are less frequent. A High locus construction combined with a handling classifier is exemplified in (41), where a particular handshape is used to express how a gun is handled. In handling classifiers, both the agent and the theme/patient are incorporated in the handshape instantiating the verb (Figure 2). Therefore, a reflex of the agent is overtly present in the handshape configuration.

- (41) JOHN<sub>up</sub>CL<sub>hand</sub>.shoot-1.  
‘They shot John.’



Figure 2. Handling classifier instantiating the holding of a gun



Figure 3. Entity classifier instantiating a gun

Previous literature on handling classifiers has shown that these complex structures incorporate an agentive external argument and an internal one (Benedicto and Brentari 2004, for ASL; Benedicto, Cvejanov & Quer 2007, for LSC and Argentinian Sign Language). According to these authors, handling classifiers preserve a transitive structure (both subject and object are incorporated in the handshape), while entity classifiers are considered intransitive unaccusative structures (with a single internal argument). According to this analysis, we would expect purpose clauses to be felicitous with handling classifiers but not with entity classifiers. This expectation is borne out in our data. While it is true that a purpose clause is a felicitous continuation in a sentence where the predicate is expressed with a handling classifier (42), the sentence including an entity classifier and including a purpose clause triggers a coordination structure. This shows that in (43) the cause does not have an intention by itself.

- (42) DOOR CL<sub>hand</sub>.door-open GO PARK IX CL<sub>ent</sub>.crowd-go-out.  
 ‘They opened the door to go out to the park.’

(43) DOOR CL<sub>ent</sub>.door-open GO PARK IX CL<sub>ent</sub>.crowd-go-out.

‘The door opened and the people went out to the park.’

Based on these observations we propose that entity classifiers in LSC express that an event took place involving an internal argument, remaining neutral as to the existence or type of an external argument, allowing anticausative readings without an agent or cause as well as passive readings with an implicit cause or agent. If we admit that purpose clauses require a volitional agent, the fact that a rational clause can combine with entity classifiers suggests that an interpretation of the event represented by the entity classifier as involving a volitional agent is possible. While the presence of an agentive argument in constructions with an entity classifier is one of several interpretive possibilities, this is not the case with constructions including a handling classifier, in which the presence of the agent is overtly marked in the handshape configuration.

When an entity classifier is included in the High locus construction (44), a continuation with a rational agent argument (44a) and with a mechanical cause (44b) are both felicitous. Crucially, the second interpretation (44b) implies a high placement of the gun and therefore it involves a topographic use of space. When the High locus construction includes a handling classifier only the rational agentive interpretation is felicitous as a possible follow-up (45a).

(44) JOHN<sub>up</sub>CL<sub>ent</sub>.gun-shoot-1.

‘John was shot.’

a. They are very dangerous.

b. The gun shot by some automatic mechanism (placed high).

(45) JOHN<sub>up</sub>CL<sub>hand</sub>.hold-gun-and-shoot-1.

‘John was shot.’

a. They are very dangerous.

b. #The gun shot by some automatic working.

As shown above (section 5.1), the Non-agreeing construction shows a preference for an anticausative cause interpretation while also allowing a human agentive. When the Non-

agreeing construction combines with a handling classifier, however, the use of the handling classifier cancels the non-agentive interpretations and triggers a human agentive reading only. The handling classifier therefore contributes to disambiguating the possible interpretations of the Non-agreeing construction.

(46) HOUSE CL<sub>hand</sub>.paint.

‘The house was painted (by someone).’

The following two sections examine two further diagnostics that have been proposed for agentivity: negative imperatives and modification by agent-oriented particles. The data further confirms the conclusion reached in this section that the High locus construction has a human agentive interpretation for the backgrounded agent while the Non-agreeing construction allows a range of interpretations, including suppression of the agent (anticausative) and the agentive interpretation of the implicit agent (stative middle/middle passive).

### 5.2.2 Negative imperatives

A second test for the presence of an agent in LSC is provided by the negative imperative sign PARA! (‘stop’) (Benedicto, Cvejanov & Quer 2007). The High locus construction with a handling classifier is compatible with the negative imperative test, showing that an agentive argument is present.

(47) JOHN<sub>up</sub>CL<sub>hand</sub>.punch-1++ PARA!

‘(I told them): stop punching John!’

For the sequence of a DP followed by a plain verb the interpretation seems to correspond to a simple negative imperative. It therefore seems that the sequence DP+V articulated in the centre of signing space embedded under PARA! does not correspond to a Non-agreeing construction but rather to a verbal complement of the imperative. The negative imperative test is therefore not applicable to the Non-agreeing construction.

(48) POT FLOWER BREAK<sub>c</sub> PARA!

‘Stop breaking flower pots!’



### 5.2.3 Modification by agent-oriented particles and purpose clauses

Agent oriented particles and purpose clauses provide a further test for the semantic presence of a volitional agent. The insertion of an agent-oriented particle such as WANT, translated as ‘deliberately/on purpose’, is a diagnostic for the presence of an intentional agent associated with the action.

As already shown in 5.2.1, the insertion of a purpose clause is felicitous with constructions including handling classifiers, showing that an external volitional agent argument intends the action (42). However, the insertion of a purpose clause is also felicitous in a sentence with an entity classifier due to the wider interpretation of these kinds of classifiers (43). Confirming the compatibility of entity classifiers with implicit agents the examples in (49) / (50) show that the High locus construction is compatible with modification by WANT with both types of classifier.

(49) TRAY<sub>up.ip</sub>CL<sub>hand</sub>:TURN-OVER WANT.  
‘They turned over the tray on purpose.’

(50) TRAY<sub>up.ip</sub>CL<sub>ent</sub>:TURN-OVER WANT.  
‘They turned over the tray on purpose.’

We will assume that entity classifiers are neutral with respect to the agent, allowing the accommodation of an intentional agent as in the Spanish example in (51), where the passive sentence is followed by a sentence that implies a human cause and accommodation licenses an agentive interpretation.

(51) La bandeja se tumbó. Fue Juan.  
‘The tray was turned over. It was Juan.’

When the agent-oriented particle is inserted in the Non-agreeing construction the only felicitous interpretation is the human agentive one (52a) and the other interpretations are no longer felicitous.

- (52) POT BREAK<sub>c</sub> WANT.  
 ‘The pot was broken on purpose.’  
 a. John is such a careless guy.  
 b. #The window opened.  
 c. #The wind is strong.

A follow-up with a purpose clause also implies the presence of an agentive argument involved in the event. In the inflected version with a High locus construction (53) the purpose clause is felicitous as it implies that there is a responsible agent doing the action. However, in the non-inflected version (54), the purpose clause is also felicitous under the interpretation of an implicit agentive argument taking part in the event – the interpretations as natural and mechanical causes that are otherwise possible are excluded in the presence of a purpose clause.

- (53) PIGGY-BANK<sub>ip</sub> BREAK<sub>ip.up</sub> MONEY 3<sub>ip.up</sub>-COLLECT-1.  
 ‘They broke the piggy-bank to collect the money.’

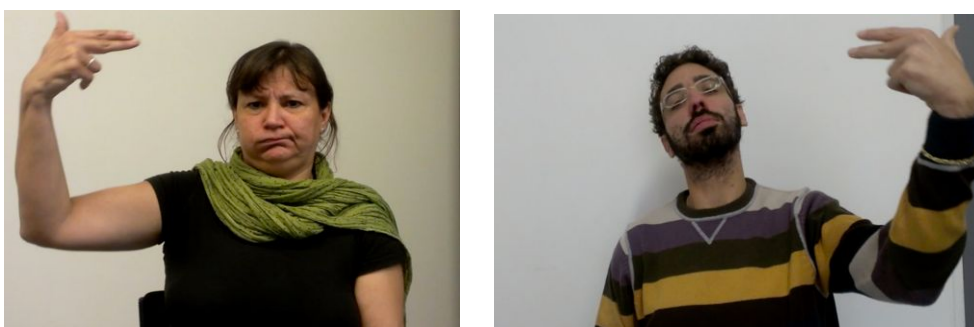
- (54) PIGGY-BANK BREAK MONEY COLLECT.  
 ‘The piggy-bank was broken to collect the money.’  
 a. They were in urgent need of money.  
 b. #The window opened.  
 c. #The wind was strong.

The tests used in this section show that the Non-agreeing construction allows a range of interpretations including an anticausative interpretation and different types of agents and causes: the presence and interpretation of the subject is underspecified in this construction. For the High locus construction, in contrast, the agentive interpretation of the backgrounded agent is part of the overall meaning of the construction.

### *5.3 Transitivity*

Several arguments show that the High locus construction does not reduce transitivity of the underlying predicate. First, with a transitive agreement verb or a classifier

construction, a location for the subject of the clause is clearly established in signing space in LSC, and also in the parallel examples in LIS. As shown in Figure 4 corresponding to a handshape classifier in LSC and LIS (note that the LIS signer is left-handed), the location for the agent is established in a lateral and higher location in signing space.



a. LSC (right handed signer)

b. LIS (left handed signer)

Figure 4. High and lateral locus

Second, the high locus of the subject is not an instance of subject agreement marker omission. Subject agreement marker omission is typical a several sign languages and allows the S-agreement marker of the verb to be omitted, whether it is realized as the beginning point of the verb (as in regular verbs) or as its end point (as in backwards verbs) (Padden 1990). The high locus is associated with a distinctive locus and cannot be analysed simply as the omission of a subject with the starting point of the path movement assimilated from the previous sign. We can exclude the possibility of the high locus being a phonological assimilation to the location used for previous signs by inserting an adverb that is articulated at a locus that is lower than the high locus. The sign *HERE* has such a lower articulation: it is expressed at the level of the dominant shoulder. The example in (55) shows that with the adverb *HERE* preceding, the verb *KILL* is not articulated from the dominant shoulder as would be expected if there was subject omission and assimilation to the locus of the preceding sign. Instead, the high subject is articulated by going from the lower location at the shoulder to the higher location, therefore showing that the high locus is independently established as a location in signing space. The sign therefore keeps its transitive structure from the distinguished high subject locus to the object. This high location that we analyse as a null non-specific

subject is instantiated in both classifier constructions and agreement verbs, showing that the syntactic valence of the verb is kept in the High locus construction.

- (55) MARIA HERE 3<sub>up</sub>-KILL-1  
 ‘Yesterday they killed Maria.’

Like Saeed & Leeson (1999: 16) we analyse the high locus to be a syntactic locus. Unlike Saeed & Leeson, however, we do not consider the locus to be semantically empty. For LSC it has been shown that this lateral higher location is associated with DPs denoting low referentiality and, more concretely, non-specificity (Barberà 2012). We therefore analyse the high locus as corresponding to a non-specific empty subject, comparable to an R-impersonal subject pronoun.

For the Non-agreeing construction, on the other hand, there is no activation of a high locus. When preceded by a sign that has a lexical higher articulation, such as the sign MOUNTAIN, the plain verb still keeps its articulation at a lower and central location in signing space.

- (56) HOUSE MOUNTAIN BUY<sub>c</sub>. (LSC)  
 ‘The house at the mountain was bought.’

The last argument showing that the High locus construction is a transitive structure comes from the possibility of inserting the auxiliary agreement sign. The auxiliary agreement sign has a trajectory movement that goes from the location established for the subject to the location established for the object (Steinbach & Pfau 2007; Quadros & Quer 2008). When inserted into the High locus construction, the trajectory still moves from one location to another, showing that two argument loci have been established. The subject/agent is located in a marked upper spatial area (the high locus just mentioned), with the initial point of the sign. Moreover, the signer’s eyegaze is also directed to this initial point, additionally activating the spatial location. While the agent argument is not previously introduced, high articulation and activation by the eyegaze show that the unspecified agent argument has been established in space. The final end point of the auxiliary agreement sign is on the body of the signer, which functions as the

object/patient. As shown in (57), the agreement verb moves from the ipsilateral to the contralateral area and the auxiliary agreement sign follows the same path.

\_\_br

- (57) CAT, CL.limb<sub>ip</sub>STEP-ON-1<sub>cl</sub> 3<sub>up,ip</sub>-AUX-1<sub>cl</sub>  
 ‘The cat, they stepped on it.’

The insertion of the auxiliary agreement sign in the Non-agreeing construction is only felicitous with an agentive interpretation (58a). When the agreement sign is overtly expressed, the other possible interpretations are excluded (58b/c). Further evidence that the auxiliary agreement sign licenses the agentive interpretation is provided by the fact that the sign cannot be felicitously combined with the sign ‘spontaneous’ (59).

- (58) POT BREAK<sub>c</sub> 3-AUX-3.  
 ‘The pot was broken.’  
 a. John is such a careless guy.  
 b. #The window opened.  
 c. #The wind is strong.

- (59) #POT BREAK<sub>c</sub> SPONTANEOUS 3-AUX-3.

#### 5.4 Grammatical relations: the case of LIS

We take the central syntactic property of canonical passive constructions to be the promotion of the logical object to syntactic subject (see section 4). To our knowledge there are no known markers of grammatical role for LSC. We can therefore only offer an indirect argument based on LIS, a historically related language that has a particular marking for the functions of subject and object and displays equivalents of the High locus construction and the Non-agreeing construction.

LIS structures the signing space for the localisation of the functions for subject and object. Geraci (2014) presents data showing that LIS has a grammatical use of signing space, distinguishing ipsilateral and contralateral placement of the referents.

The ipsilateral side is the area located at the dominant hand of the signer (the right hand for right-handed signers), while the contralateral side is the area located at the non-dominant hand (the left hand for left-handed signers) (cf. e.g. Sandler 1989 on sign language phonology). Placement in the ipsilateral and contralateral side is indicated in the glosses by the subscripts *ip* and *cl* respectively.

Geraci shows that in contexts without hierarchical and topographic use of space, subjects in LIS are localised in the ipsilateral area of signing space while objects are localised in the contralateral area. Example (60) shows that the subject is localised in the ipsilateral area; the object, in the contralateral, and the agreeing verb moves from ipsilateral to contralateral (Figure 5; note that the signer is left-handed). Similarly, a construction with an indefinite pronoun like (61) also follows the same pattern, as shown in the glosses.

- (60) GIANNI<sub>ip</sub> CAT<sub>cl</sub> 3<sub>ip</sub>-STEP-ON-3<sub>cl</sub>  
 ‘Gianni stepped on a cat.’



Figure 5. Trajectory from ipsilateral to contralateral  
 in an active sentence in LIS

- (61) QUALCUNO<sub>ip</sub> CAT<sub>ip</sub>STEP-ON<sub>cl</sub>.  
 ‘Someone stepped on a cat.’

For the High locus construction in LIS, the lateral consistency is kept, suggesting that the construction does not involve syntactic promotion of the object to subject. The object is still in the contralateral area, as shown by the path of the agreeing verb moving from ipsilateral to contralateral (62, Figure 6). When the sentence is continued by a co-

referential pronoun referring to the agent, the index pronoun is also directed to the ipsilateral side (63).

- \_\_\_\_\_rs:cat  
 (62) CAT CL<sub>limb</sub>:WALK 3<sub>ip.up</sub>-STEP-ON-1<sub>cl</sub>.  
 ‘They stepped on a cat.’

- \_\_\_\_\_rs:cat  
 (63) CAT CL<sub>limb</sub>:WALK 3<sub>ip.up</sub>-STEP-ON-1<sub>cl</sub>. IX3<sub>ip</sub> DANGEROUS.  
 ‘They stepped on a cat. They are dangerous.’



Figure 6. Trajectory from ipsilateral to contralateral in LIS

For the Non-agreeing construction in LIS, in contrast, the object is articulated in the centre of signing space without lateralization. Similar to LSC, the Non-agreeing construction in LIS also allows a range of interpretations for the backgrounded agent (‘The pot was broken by John’, ‘The pot was broken by the wind’, ‘The pot was broken because a book fell over it.’)

- (64) POT BREAK<sub>c</sub>. (LIS)  
 ‘The flower pot broke.’



Figure 7. Articulation of verb BREAK in the centre of signing space

### 5.5 Role shift vs. grammatical relations

As we have seen in section 3, the analyses in Janzen et al. (2001) and Saeed & Leeson (1999) consider the shift of perspective by role shift to the patient to be a central property of agent-demoting constructions. However, this shift in perspective cannot be taken as an analogue of the *syntactic* promotion of the object typical of canonical passives, as the centre of perspective and grammatical role of the subject do not coincide in general. As example (65) shows, transitive structures can adopt the perspective of the object of the sentence.

- \_\_\_\_\_RS
- (65) MARTÍ SHOULDER GRAB-1.  
 ‘Martí grab me from the shoulder.’

Secondly, the centre of perspective is not necessarily associated with the grammatical subject cross-linguistically. In the following examples the centre of perspective is expressed as an object (61a) and as a prepositional phrase (61b/c). Shift of perspective to the undergoer can therefore not be analysed as an indicator of syntactic promotion of the object.

- (66) a. Thunders frighten me.  
 b. For the child the sweets in the jar were very tempting.  
 c. In the eyes of the public, this law is unfair.



## 5.6 Discussion

The data discussed above show that the High locus construction is a transitive construction with a human agent while the Non-agreeing construction is a construction compatible with an agentless interpretation, inanimate and animate agents, involving no locus for the subject.

As there is no evidence of object promotion and no reduction in transitivity, we conclude that the High locus construction should not be analysed as syntactic passive corresponding to *The policeman was hit*. Instead, we propose that the High locus construction is best analysed as a transitive construction with an R-impersonal subject combined with a topicalised object as in (67a) below, in a way comparable to the Spanish example (68). In terms of Keenan and Dryer (2007), this means that the High locus construction is not a passive construction operating at the VP-level, but an agent backgrounding operation at the sentence level.

- \_\_\_\_\_br
- (67) POLICEMAN, 3<sub>up</sub>-HIT-1 (LSC)
- a. The policeman, they hit him.
- b. Not: They hit the policeman.
- c. Not: The policeman was hit.
- (68) Al policía le pegaron. (Spanish)
- A-the policeman him hit.past.3pl

This analysis is supported by the fact that the High locus construction is limited to a human interpretation of the agent, a restriction typical of R-impersonal pronouns such as English *they*, French *on*, German *man*, Spanish *uno*. Furthermore, in most of the cases, the object in the High locus construction is articulated with particular phonological and prosodic topic marking on the object, with raised eyebrows (Figure 8) and a prosodic pause right after the manual sign is uttered, indicated with a comma in the gloss in (69). These non-manual markings have been extensively described as topic marking in the literature (Aarons 1994).

- \_\_\_\_br  
 (69) JOAN<sub>cl</sub>, 3<sub>ip</sub>-SHOOT-1<sub>cl</sub>  
 'John, they shot him.'



Figure 8. Brow raised as topic marking

In summary, we propose that the High locus construction is a transitive construction with an R-impersonal human subject and a dislocated object. However, the dislocation found in the High locus construction does not seem to be parallel with topicalisation or clitic-left dislocation as the High locus construction allows dislocated distributive DPs.

- (70) POLICEMAN CL<sub>ent</sub>.people-in-line EACH, SHOOT-1+++.  
 'Each policeman was shot.'

The Non-agreeing construction is not transitive since only the patient argument is associated with a locus. Still, the Non-agreeing construction allows agentive modification (by purpose clauses and WANT) and readings without agents and with inanimate causes. We therefore propose that the Non-agreeing construction should be analysed as a middle construction allowing anticausative, stative middle and middle-passive interpretation.

- (71) a. POT BREAK<sub>c</sub> SPONTANEOUS. (LSC, anticausative)  
 'The pot broke spontaneously.'
- b. TABLE CLEAN<sub>c</sub> EASY (LSC, middle-stative)
- i. '(This) table was cleaned easily.'
- ii. '(This) table cleans easily.'

- c. HOUSE CL<sub>hand</sub>.paint. (LSC, passive)  
 ‘The house was painted (by someone).’

In this section we have focused on the High locus construction, in which the subject is located in the upper plane of the signing space. It is possible, however, to express an R-impersonal reading with an agreeing verb without placing the empty subject in the upper plane. The High locus construction and the Non-agreeing construction are therefore not the only means of marking argument reduction in LSC. In particular, there are constructions that are ambiguous between an R-impersonal and a reflexive reading. In the following section we compare these ambiguous examples with the High-locus construction in order to identify the morphosyntactic properties that disambiguate these examples in favour of a reflexive or an R-impersonal reading.

## 6 Comparing the High locus construction and reflexives

In LSC some variants of the High locus construction can be ambiguous between an impersonal and a reflexive reading. The example in (72), where the predicate is not localised in a higher location, may have a reflexive interpretation in which the agent argument has the same identity as the patient (72a), or an R-impersonal reading with different referents for agent and patient (72b). Crucially, in both interpretations the predicate is articulated towards the body of the signer.

- \_\_\_\_\_br  
 (72) JOANA, CL<sub>ent</sub>:shoot-gun-1 (LSC)  
 a. Joana shot herself.  
 b. They shot Joana.

Cross-linguistically, reflexives are a common source of agent backgrounding constructions. Morphologically reduced reflexives can give rise to passive constructions (e.g. in Romance and Slavic) that may further be reanalysed as R-impersonal constructions (see e.g. Siewierska 1984, Dobrovie-Sorin 2005). In this section we will therefore compare the High locus construction with reflexives in LSC, with the aim of

identifying the properties that disambiguate between the two constructions. We tested a range of semantic and morphosyntactic criteria, comparing minimal pairs. Some of the morphosyntactic properties that emerged have been identified as properties of passive-like structures in previous research (see section 3), in particular role shift, averted eyegaze and higher location in signing space for the locus of the subject. As shown in this section, the combination of these properties allows the distinction between a reflexive and an impersonal construction: when they are lacking the reflexive reading is the most salient one.

### *6.1 Morphosyntactic criteria*

We examined a range of possible morphosyntactic criteria, taken to be definitional properties of the agent-backgrounding constructions examined in previous research (section 3), which contribute to the disambiguation of the two structures. We also identified prosodic properties that distinguish between the two constructions. All the examples in this section are taken from LSC.

#### *6.1.1 Dislocation of the object*

In section 5.6 we proposed that in the High locus construction the object occurs in a dislocated position, co-occurring with brow raise and followed by a prosodic pause. Reflexive constructions are also compatible with dislocated objects. However, for the High locus construction (73a) object dislocation is systematic and, according to our informants, compulsory in order to get a transitive interpretation, while the reflexive construction (73b) often appears without topic marking on the object (i.e. without brow raised and a prosodic pause).

- \_\_\_\_br
- (73) a. JOANA, CL<sub>ent</sub>:shoot-gun-1  
 ‘They shot Joana.’
- b. JOANA CL<sub>ent</sub>:shoot-gun-1  
 ‘Joana shot herself.’

### 6.1.2 Body lean, averted eyegaze and distance of articulation

A second morphological property distinguishing reflexive and R-impersonal readings is found on body lean. The sign corresponding to the patient may co-occur with a body lean towards a lateral spatial location. As shown in the minimal pair below, when the patient DP does not co-occur with body lean (Figure 9), the construction is ambiguous between an impersonal reading (74a) and a reflexive reading (74b). The distinction between the impersonal and the reflexive reading in the minimal pair below is therefore triggered by the higher articulation of the predicate in the first one, rather than by the body lean.

- \_\_\_\_br  
 (74) a. MARIA 3<sub>up</sub>-WASH-FACE-1  
 ‘They washed Maria’s face.’

- \_\_\_\_br  
 b. MARIA WASH-FACE-1  
 ‘Maria<sub>i</sub> washed her<sub>i</sub> face.’



Figure 9. Patient co-occurring without body lean

When the DP co-occurs with body lean (indicated in the glosses with *cl* for contralateral, and Figure 10), only the impersonal subject reading is possible. In this example the dislocation of the patient argument in the syntax co-occurs with body lean marking and results in an R-impersonal reading: the object and the subject are disjoint and the subject is non-specific human.

- (75) \_\_\_\_br  
 MARIA<sub>cl</sub> 3<sub>up</sub>-WASH-FACE -1  
 'They washed Maria's face.'



Figure 10. Patient co-occurring with body lean

The behaviour of eyegaze also contributes to the distinction between a reflexive and an R-impersonal reading. When eyegaze is continuously fixed to the addressee, a reflexive structure is derived, with joint reference between agent and patient (76a). In contrast, when the eyegaze is averted (i.e. there is a slight shift in eyegaze), a transitive structure is derived, with disjoint reference between agent and patient (76b). Therefore, an impersonal reading arises. This is consistent with the fact that role shift co-occurring with the expression of the patient and averted eyegaze are characterising properties of the High locus construction.

- (76) a. JOANA KNIFE CL<sub>ent</sub>.knife-in-the neck-1.  
 'Joana aimed at herself with a knife.'

\_\_\_\_\_averted eyegaze  
 \_\_\_\_\_rs:joana

- b. JOANA, KNIFE CL<sub>ent</sub>.knife-in-the neck-1.  
 'They aimed at Joana with a knife.'

Last but not least, distance of articulation of the predicate with respect to the body of the signer is also crucial for a (dis)joint interpretation of agent and patient. When body lean is not co-articulated with the expression of the patient and the verb or the classifier

predicate are articulated close to the body of the signer (Figure 11) a reflexive reading arises.

- \_\_\_\_\_rs:joana  
 (77) JOANA, CL<sub>ent</sub>.shoot-shotgun-down-1  
 'Joana shot herself from below.'



Figure 11. Closer to the body of the signer

In contrast, when body lean is co-articulated with the expression of the patient (indicated in the glosses with *ip* for ipsilateral) and the verb is articulated at a distance with respect to the body of the signer (Figure 12), agent and patient are interpreted as disjoint and an R-impersonal reading arises. Note that distance of articulation of the predicate may co-occur with the above mentioned morphological properties, namely body lean and averted eyegaze, as shown in Figure 12.

- \_\_\_\_\_rs:joana  
 (78) JOANA<sub>ip</sub>, CL<sub>ent</sub>.shot-gun-in-the-head-1  
 'They aimed at Joana with a shotgun.'

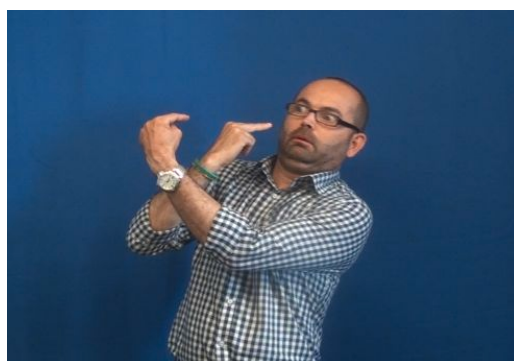


Figure 12. Distant to the body of the signer

We consider body lean, averted eyegaze and distance of articulation crucial evidence to obtain different structures and therefore disambiguated readings.

### 6.1.3 High location of the subject

The last factor is the localisation of the subject at a higher location in the signing space. As shown in section 5.2, agreeing verbs in LSC may establish a higher location for a semantically empty subject to mark non-specificity. The following minimal pair shows that the verb DRESS may be articulated at a neutral location (79a) and correspond to a reflexive interpretation, and it may also be articulated at a higher location (79b), corresponding to the High locus construction and therefore leading to an impersonal interpretation. If the adverb YESTERDAY, which is articulated at a lower area, is inserted, the verb still includes the same movement towards a high location (Figure 13). In our LSC data, the higher location in signing space disambiguates in favour of the High locus construction, rather than in the reflexive one.

- \_\_\_\_br \_\_\_\_\_br  
 (79) a. MARIA, YESTERDAY, DRESS-1.  
 'Yesterday, Maria got dressed.'

- \_\_\_\_br \_\_\_\_\_br  
 b. MARIA<sub>ip</sub>, YESTERDAY, 3<sub>up</sub>-DRESS-1.  
 'Yesterday, they dressed Maria.'



Figure 13. High location for the subject of DRESS



#### 6.1.4 Handling vs. entity classifiers

We also tested whether using different kinds of classifiers would bias one of the two readings. As already mentioned, handling classifiers are considered to preserve a transitive structure (both subject and object are incorporated in the handshape), while entity classifiers are considered intransitive unaccusative structures (with a single internal argument) (Kegl 1990; Benedicto & Brentari 2004). However, semantically, the interpretation of entity classifiers is broader in LSC and as we saw in section 5.1 entity classifiers also allow an agentive reading. Based on the literature on classifiers, we examined the hypothesis that handling classifiers would bias a transitive reading and therefore an impersonal interpretation over a reflexive interpretation. The different expressions of the classifiers are represented in the two manual handshapes: the entity classifier in (80) is articulated with a 3-handshape, and the handling classifier in (81) with a 1-handshape. However, the two kinds of classifiers were compatible with both reflexive and R-impersonal interpretations.

(80) JOANA CL<sub>ent(3)</sub>:shoot-gun-1.

- a. 'Joana shot herself.'
- b. 'They shot Joana.'

(81) JOANA CL<sub>handl(1)</sub>:shoot-gun-1.

- a. 'Joana shot herself.'
- b. 'They shot Joana.'

#### 6.1.5 Discussion

Contexts that combine a reflexive and an impersonal construction in the same sentence show that these factors represent clear contrastive markings. The two verbs in (82a) are characterised by being articulated close to the body of the signer, there is no averted eyegaze between the two clauses and there is no body lean towards any location. In contrast, in (82b) the verb in the first clause is articulated close to the body of the signer while the verb in the second clause is articulated distant to the body of the signer and it is directed towards a higher location. In between the two clauses in (82b), there is an averted eyegaze, which is directed towards the upper and contralateral area, and in the second clause the signer articulates a body lean towards the ipsilateral area and

therefore moving her body away from the center of signing space. The second clause corresponds to an impersonal reading.

(82) a. IX1 FINGER-CUT FINGER-STRIP

'I cut my finger cut and I put a plaster on my finger.'

\_\_\_\_\_eg:up.cl

b. IX1 FINGER-CUT<sub>ip</sub> FINGER-STRIP-3<sub>up.cl</sub>

'I cut my finger and they put a plaster on my finger.'

However, among the different criteria examined, no single core factor emerged. Role shift, which is marked by a combination of features, including averted eyegaze, body lean and distance from the body of the signer, is sufficient to disambiguate the two interpretations. While in the reflexive construction role shift is overtly expressed in the whole sentence (83a), in the combined sentence role shift is expressed in the first clause and in the second clause eyegaze is directed towards the ipsilateral area where the movement of the verb begins (83b).

\_\_\_\_\_rs

(83) a. ANA BUTTON-UP-1 JACKET-PUT-ON-1.

'Ana buttoned-up and put the jacket on by herself.'

\_\_\_\_\_rs \_\_\_\_\_eg:ip

b. ANA BUTTON-UP-1 3<sub>ip</sub>-JACKET-PUT-ON-1.

'Ana buttoned-up and they put the jacket on her.'

Morphosyntactic criteria, such as role shift together with averted eyegaze, body lean, distance from the body of the signer and high location of the agent play a role in the distinction between an impersonal and a reflexive interpretation. Prosodic marking is also crucial for the disambiguation of the two structures. When they are present, only an impersonal reading is possible.

## 6.2 Tests for semantic criteria

We also tested two semantic criteria to differentiate R-impersonal from reflexive readings: intentionality of the agent and resultative modification of the patient. However, these two criteria do not differentiate between an R-impersonal and a reflexive interpretation.

We tested the degree of intentionality of the agent under the hypothesis that reflexive constructions may be limited to intentional agency. However, both reflexive and R-impersonal interpretation are possible in an intentional and an unintentional context ((84) and (85) respectively). In both cases intentionality or lack thereof is attributed to the agent of the sentence, and the degree of intentionality does not differentiate between a reflexive and an impersonal construction in the examples we tested.

\_\_\_\_br

- (84) JOANA CL<sub>ent</sub>:shoot-gun-1 WANT.
- a. 'Joana shot herself intentionally.'
  - b. 'They shot Joana intentionally.'

\_\_\_\_br

- (85) JOANA CL<sub>ent</sub>:shoot-gun-1 WANT-NOT.
- a. 'Joana shot herself unintentionally.'
  - b. 'They shot Joana unintentionally.'

The second semantic factor we tested concerned resultative modification under the hypothesis that the reflexive construction might be syntactically intransitive disallowing resultative modification of the patient. However, in LSC resultative modification is possible with reflexives and R-impersonals alike and the example below with resultative modification remains ambiguous.

\_\_\_\_br

(86) JOANA CL<sub>ent</sub>:shoot-gun-1 DEAD.

a. 'Joana shot herself dead.'

b. 'They shot Joana dead.'

Summing up, we established a range of morphosyntactic properties that may disambiguate between reflexive and R-impersonal interpretation. The semantic diagnostics that we tested did not contribute to disambiguation. The following table summarises the findings reported in this section.

	Reflexive	Impersonal	Distinguishing criteria
MORPHOSYNTAX			
Prosodic marking	-/+	+	✓
CL:handling	+	+	
CL:entity	+	+	
Role shift	+	+	
Averted eyegaze	-	+	✓
Body lean	-	+	✓
Distance from body	-	+	✓
High location of agent	-	+	✓
SEMANTICS			
Intentionality	+	+	
Resultative	+	+	

Table 3. Distinguishing criteria between reflexive and impersonal structure

## 7 Conclusions

We have shown that in LSC at least two agent-backgrounding constructions have to be distinguished. The Non-agreeing construction is limited to plain verbs and inanimate patient and allows a range of interpretations including anticausative, stative-middle and passive. In contrast, in the High locus construction an agreement verb establishes an empty but syntactically active locus by the agreement path and the backgrounded agent is obligatorily interpreted as human. With an animate patient the agreement in the High Locus construction is with the body of the signer, which expresses the undergoer through role shift, while for inanimate patients agreement is with the locus established for the inanimate object DP. We have argued that the Non-agreeing construction

corresponds to an argument-reducing construction that comparable to a non-active verb form (middle) that optionally but not necessarily includes an implicit agent, while the High locus construction corresponds to a transitive construction with an R-impersonal subject.

We have proposed that the properties of the Non-agreeing construction resemble a medio-passive forms comparable to reflexive verbs in Romance ranging from anticausative (87a), stative middle (87b) to medio-passive readings (87c) (see Dobrovie-Sorin 2005 for an overview of reflexive constructions in Romance).

(87) a. El jarro se rompió. (Spanish)  
 the jar refl broke  
 ‘The jar broke.’

b. Este jarro se limpia fácilmente.  
 this jar refl clean easily  
 ‘This jar cleans easily/ is easy to clean.’

c. Ayer se repararon varias lámparas.  
 yesterday refl. repaired.3pl many lamps  
 ‘Yesterday many lamps were repaired.’

We do not adopt an alternative analysis of the Non-agreeing construction as an adjectival passive as the non-agreeing construction allows eventive readings and modification of the implicit agent by “intentionally”, while adjectival passives have a stative interpretation and are not generally compatible with modification by *intentionally* (88a):

(88) a. \*El jarro está roto a propósito.  
 det jar is.loc broken on purpose

b. El jarro fue roto a propósito.  
 det jar is.cop broken on purpose

In LSC the Non-agreeing construction is compatible with aspectual inflection on the verb conveying the meaning *gradually*. In (89) the sign for ‘humid’ is modified with the bound inflectional morpheme ‘gradual’, showing that it allows an eventive interpretation.

- (89) a. CLOTHES WATER HUMID<sub>c.grad</sub>  
 ‘The clothes are getting wet.’

The present exploration of agent-backgrounding operations in LSC has proven to be a very rich domain, where different morphosyntactic features interact in order to express agentless structures. Recently, this domain has begun to be the focus of attention of other research projects, such as the role of inanimate themes in passive-like constructions (cf. Özkul & Kelepir 2015). Comparative data in other sign languages is clearly needed in order to further substantiate the claims put forth here, as well as a deeper inquiry into several of the phenomena that have been only briefly touched upon in this article.

#### Acknowledgments

Acknowledgments to be added.

#### References

- Barberà, G. 2012. *The meaning of space in Catalan Sign Language (LSC). Reference, specificity and structure in signed discourse*. Doctoral dissertation, Universitat Pompeu Fabra. Published as a revised version in 2015 at Berlin/Boston: De Gruyter Mouton and Ishara Press.
- Benedicto, E., and D. Brentari. 2004. Where did all the arguments go? Argument-changing properties of Classifiers in ASL. *Natural Language and Linguistic Theory*, 22(4), 743-810.
- Benedicto, E., S. Cvejanov & J. Quer. 2007. Valency in Classifier Predicates: A Syntactic Analysis. *Lingua* 117. 1202-1215.
- Blevins, J. 2003. Passives and impersonals. *Journal of Linguistics* 39, 473-520.

- Cabredo Hofherr, P. To appear. Impersonal passives. In Martin Everaert & Henk Van Riemsdijk (eds.), *The Blackwell Companion to Syntax*. Oxford: Blackwell.
- Cuxac, C. 2000. La langue des signes française. Les voies de l'iconicité. *Faits de langue*, 15-16. Paris, Ophrys.
- Dobrovie-Sorin, C. 2005. The *se* anaphor and its role in argument realization. In M. Everaert & H. van Riemsdijk (eds.) *The Blackwell Companion to Syntax*, v.4, 118-179. Oxford, UK: Blackwell.
- Geraci, C. 2014. Spatial syntax in your hands. In Jyoti Iyer and Leland Kusmer (eds.), *NELS 44: Proceedings of the Forty-Fourth Annual Meeting of the North East Linguistic Society*, Volume 1, 123–134. Amherst: GLSA.
- Guitteny, Pierre. 2006. *Le passif en langue des signes*. Doctoral dissertation, Université Bordeaux III.
- Hansen, M. 2007. Why can German Sign Language (DGS) do without a passive construction? Ways of marking semantic roles in DGS. Dissertation abstract. *Sign Language and Linguistics*. 10 (2) : 213-222.
- Janzen, T., B. O'Dea, B. Shaffer 2001. The Construal of Events: Passives in American Sign Language. *Sign Language Studies* 1 (3): 281-310.
- Keenan, E. and M. Dryer. 2007. Passive in the world's languages. In T. Shopen (ed.), *Clause structure, language typology and syntactic description*, Vol. 1, 325–361. Cambridge: Cambridge University Press.
- Kegl, J. 1990. Predicate Argument Structure and Verb-Class Organization in the ASL Lexicon. In C. Lucas (Ed.), *Sign Language Research: Theoretical Issues*, 149-175. Washington, DC: Gallaudet University Press.
- Klima, E. & U. Bellugi. 1979. *The signs of language*. Cambridge, MA: Harvard University Press.
- Lillo-Martin, D. 1995. The point of view predicate in American Sign Language. In K. Emmorey & J. Reilly (eds.), *Language, Gesture, and Space*, 155-170. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Özkul, A. & M. Kelepir. 2015. Passive-like constructions with inanimate themes in Turkish Sign Language (TID). Poster presented at Formal and Experimental Approaches to Sign Language Theory. Barcelona, 4 May 2015.

- Padden, C. 1990. The relation between space and grammar in ASL morphology. In C. Lucas (Ed.), *Proceedings of the Second International Conference on Theoretical Issues in Sign Language Research*. Washington, DC: Gallaudet University Press.
- Quadros, R. & J. Quer. 2008. Back to backwards and moving on: on agreement, auxiliaries and verb classes in sign languages. In Ronice Müller de Quadros (ed.), *Sign Languages: spinning and unraveling the past, present and future (TISLR9)*, 530-551. Petrópolis/RJ. Brazil: Editora Arara Azul.
- Saeed, J. & L. Leeson 1999. Detransitivisation in Irish Sign Language. Paper presented at the European Science Foundation Intersign Meeting on Morphosyntax. Sienna, March 1999.
- Sandler, W. 1989. *Phonological Representation of the Sign: Linearity and Nonlinearity in American Sign Language*. Dordrecht: Foris.
- Siewierska, A. 1984. *The passive: A comparative linguistic analysis*. London: Routledge.
- Siewierska, A. 2011. Overlap and complementarity in reference impersonals: 'Man'-constructions vs. third person plural-impersonals in the languages of Europe. In A. Siewierska and A. Malchukov (eds.) *Impersonal Constructions: A Cross-linguistic Perspective*, 57-89. Amsterdam: John Benjamins.
- Steinbach, M. & R. Pfau. 2007. Grammaticalization of auxiliaries in sign languages. In P. Perniss, R. Pfau & M. Steinbach (eds.), *Visible variation: Comparative studies on sign language structure*, 303-339. Berlin: de Gruyter Mouton.
- Sze, F. 2010. Is there passive in Hong Kong Sign Language? Poster presentation at TISRL 10, Purdue University, USA, 30 September – 2 October 2010.

---

<sup>i</sup> This article follows the usual glossing conventions in the sign language literature, according to which manual signs are represented by the capitalized word corresponding to the translation of the sign. The relevant abbreviations for the present purposes are the following: IX# (index pointing sign; the numbers refer to the grammatical person); #-VERB-# (verb agreeing with subject and object); sub-indices mark direction towards sign space: lo (low), up (up), ip (ipsi-lateral); cl (contra-lateral); c (centre); binding relations (i, j...); CL for classifier construction, followed by the kind of classifier (*ent* for entity classifier; *hand* for handling classifier; *limb* for limb classifier), the handshape in parentheses and a rough meaning description. A line above the glosses indicates the scope of non-manuals: br (brow raise), eg (eyegaze), rs (role shift). Reduplication of signs is indicated by +++.

<sup>ii</sup> See Kegl (1990) for details on notational conventions.

<sup>iii</sup> The examples taken from the literature have been adapted to our own notation system, as presented in note i.

<sup>iv</sup> Cuxac (2000:199) "On has a corresponding form in LSF, namely to make the movement of the verb INFORM start from a neutral locus that is independent of the presence of a concrete person." (On a son



---

équivalent en LSF. Il s'agit de faire partir le mouvement du verbe INFORMER d'un emplacement neutre, indépendant de la présence de toute personne physique.") (cited apud Guitteny 2006: 312).

<sup>v</sup> For a detailed discussion see Blevins (2003) for the distinction between passive verbs and impersonal verb forms, and Cabredo Hofherr (to appear) for the distinction between passive verbs, impersonal verb forms and impersonal subjects.

<sup>vi</sup> Saeed & Leeson (1999: 27) take central subject locus as a characteristic of Demotion 2. However, the examples discussed in detail are with agreeing verbs and from the discussion in S&L it is not clear whether they analyse agent-less non-agreeing verbs articulated in the c-locus as instances of Demotion 2.