Syntax of Classifier Incorporation in Indian Sign Language

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Without the ability to categorize, we could not function at all, either in the physical world or in our social and intellectual lives. An understanding of how we categorize is central to any understanding of how we think and how we function, and therefore central to an understanding of what makes us human.

Lakoff (1987:6)

1. Introduction

The Indian Deaf community has passively resisted the millennium old suppression of sign language (henceforth, SL) under the yoke of ideological dogmas by nurturing SL as an integral part of their community existence. Of the 14 million deaf population of India[1], all the members of the population do not sign or share Deaf culture due to variety of rhymes and reasons. Within the Deaf community in India, a continuum of SL use exists due to several socio-linguistic-educational factors. Thus, the Indian Deaf community is primarily a cultural minority bound together by modality and Deaf cultural values rather than by a specific language and other primordial values.

Several claims have been made so far about lexicon and grammatical structure of SL in India. Vasishta, Woodward and Wilson (1978:68-9) claim that the lexical similarity is over 90% in Delhi, Bombay (now Mumbai), Bangalore and Calcutta, and "there is only one Indian Sign Language". Jepson (1991: 39) claim that Urban Indian Sign Language is pan-Indian. On the other hand, Indian Sign Language Dictionary (2001:38) reports that 42% of signs are common all over India. Woodward (1983) establishes relatedness of SLs of India, Pakistan and Nepal on the lexical basis. Zeshan (2000) confirms the structural similarity underlying the same grammar between Indian Sign Language (ISL) and Pakistani Sign Language (PSL), and call the SL of these colonial cousins as Indo-Pakistani Sign Language (IPSL). It is also a standard assumption that the SLs of the Indian sub-continent are indigenous and are genetically unrelated to the SLs of other continents (Zeshan 2003: 113; Jepson 1991: 39; Vasishta, Woodward and Wilson 1978:72).

Delhi and Mumbai (formerly, Bombay) show regional variations in the lexical items but not in the structures. Thus, Delhi-Bombay[2] variety (rather than varieties as generally assumed on the lexical basis) is one of the varieties of SL of India under the generic label of ISL. The exploration of other variety (if it holds, of ISL) and/or language is another area of research in India.

2. Methodology

The present paper explores the data collected through fieldwork during Spring 2003 from Delhi-Bombay variety under the generic label of ISL. The methodology employed for the study is deductive. The questionnaire in English is followed for the elicitation of data, which is corroborated and integrated with the observations in discourse. Native signer's

[1] According to Dr. Madan Vasishta in the Indian Sign Language Dictionary 2001.

[2] Despite the change in the name of the city, variety shall be known by its former name.

judgment is taken in account for grammaticality facts. The criteria for a consultant are as follows:

i. Exposure to sign by three years of age.
ii. Capability and comfort with judging whether a sentence is grammatical or not.
iii. Daily contact with the signed language in the deaf community (for 10+ years).

Mathur and Rathmann (in press, as cited in Mathur 2000:87).

To avoid any potential extra erroneous influence, the data is verified with the bilingual consultant, and the reverse translation of the data into English is adopted with the help of bimodal consultant. The data is videographed using digital videography. Indian Sign Language Dictionary (2001) is also used in the description of signs.

3. SL Classifier: an account

Classifiers are one of the several types of nominal classification system. The classifier form and the lexical noun jointly contribute to reference. The lexical noun indicates the referent's identity and the classifier form indicates its individuation status. The change in either of them results in the change of the meaning (Lucy 2000: 330). The basic cognitive aspect of classification is to categorize concepts into class and category or group reflecting the interaction that the speakers have with their environment.

In all SLs investigated so far, a category of verbs of motion and location has handshape, which has meaningful, morphemic function. This meaningful unit has generally come to be labelled as classifier because the handshape appears to vary according to the salient characteristics of the referent, and such constructions are known by various terminological labels (see Schembri 2003). A number of researchers have argued against and for regarding the use of the term 'classifier' and the analysis based on it. However, one needs to tackle two fundamental issues as mentioned by Tang (2003: 146) in this regard:

i. The linguistic status of handshape as classifier.
ii. What constitutes the verb root of such verbs?

To address the first issue is to prove Royen's point (129:iv) that the question of nominal class raises a whole lot of other questions. To begin with, SL evolves as a tertiary modelling device by a given community of deaf people to the stimulation its members get from their immediate environment (as commented by Stokoe 1974:10 in relation to language). The perceived world is not only expressed and represented in and through language, but the users also develop concepts of what they perceive and create linguistic expressions that refer to and represent these concepts. The very basic level linguistic articulation begins with mimesis forced by the nature of things. Hence, natural language displays iconic aspects. All forms of language use iconicity (Wescott 1971), irrespective of modality through which the perceived world is conveyed. Aronoff et al. (2000) suggest that iconicity is a desirable property of language though not much found in spoken language primarily due to the modality factor. In this regard, a continuum of iconicity-arbitrariness, Mandell (1977) points that an element of language can be both conventional and iconic.

Primarily due to the modality through which linguistic expressions are articulated, SL allows greater degree of iconicity than spoken languages, and has often been the source of origin of signs. What is different and unusual about SL is their visuo-spatial form- the fact that space and movement can be used to linguistically represent space and movement in the world. Further, in aspects of the grammar of SL (Liddell 2000 as cited in Schembri 2003) involve conflation of linguistic and extra-linguistic world.

In this paper, the label 'classifier' is used according to the widely accepted definition: morphemes that classify nouns according to semantic criteria (see Senft 2000). I am arguing that handshape represents the perceived reality picking up the visuo-spatial property/ies of the referent, and the same handshape used in the variety of lexical items categorises them into a semantic class. In other words, handshape represents the visuo-spatial property of the referents, and forms into a class distinguishing from the other class on the basis of handshape. This entails that the classifier handshape is a morpheme in ISL. Since, iconicity is directly available due to modality, handshape classifies referents into a class as expected of classifier (and as found in spoken languages), and actuates us to see the continuum of morpho-syntactic status of classifier in SL ranging from an overt free classifier as found in Swedish SL (Bergman and Wallin 2003), bound essence classifier as in ASL CL: vehicle (Baker-Shenk and Cokely 1980), to single phoneme-morpheme bound classifier as found in ISL (see further discussed in section 4.1).

In spoken languages, classifier morpheme is a single, overt morpheme (Grinevald 1996), but many SL researchers have shown that handshape in verbs of motion and location is morphologically complex unit rather than a single morpheme (Wallin 1996). In his proposed analysis, Wallin has shown that the changing location of the second handshape HS unit with respect to the classifier handshape, the spatial meaning changes. Therefore, the classifier handshape is multimorphemic. The spatial meaning is given by the location of the second handshape unit in relation to the classifier handshape rather than by the classifier handshape alone. This can be attested to the iconicity that the modality provides.

On the other hand, many researchers have analysed formational parameters as separate morphemes that combine together to produce a sign. In other words, what is phoneme is also morpheme. Such single feature morpheme involving palatalisation and tonal modification is found in Japanese and Chichewa, respectively (as cited in Schembri 2003: 8). Hence, it is not unusual or unique in SL to posit a single unit as a phoneme as well as a morpheme i.e. handshape. However, by assuming the above hypothesis that handshape is phonemic-morphemic and classifies referent into category due to iconicity involved in it, all the handshape used in SL are not classifiers because handshape takes one or two aspect of the perceived reality and classifies them into a class based on it leaving aside other aspects. Thus, all handshape are not classifiers. Moreover, Engberg-Pedersen (1993) has claimed that the choice of handshape does not depend solely on the attributes of the referent represented by an associated nominal. On the other hand, handshape is neither a lexical nor a grammatical item in itself. It is not lexical because a sign is formed in combination with other formational parameters, and not grammatical as it is not grammaticalised though it may in due course of time stripped off its iconicity. On the other hand, it is interesting to note that since, HS represents one or the other aspect of the referent and categorises based on those aspects, it has been claimed that large percentage of lexical signs originate in the classifier system.

The second issue is of greater theoretical interest and has been debated already on two hypotheses:

i. Movement as root (Supalla 1986, 1990; Schick 1990; Liddell& Johnson 1987)
ii. Handshape as a root (McDonald 1982; Engberg-Pedersen 1993)

The later hypothesis is explored in the paper primarily due to the following reasons:

i. Owing to the modality, a sign is obligatorily composed of handshape, orientation and location. It cannot be formed in absence of handshape but can be in absence of movement.
ii. Orientation is not independent of handshape despite having phonemic status in ISL. Therefore, handshape and orientation are two independent units although fused together.
iii. As seen in the case of handling classifiers in ISL, despite different orientations, handshape constantly refers to the semantic and quantificational criteria (discussed later see section 4 and 5).
iv. Signer has choice to construct a sentence representing the verb of motion and location with a lexical sign with/without classifier handshape in ISL.
v. Classifier handshape in the verbs of motion and location is incorporation into the verb root, and the handshape of the verb is deleted due to syllabic constraint.

4. ISL Classifiers

Classifiers in general, and ISL in particular reflect interactions that signers have with their environment – social, physical and functional (as typologised by Denny 1976). Of the eleven classifiers found in my data in ISL (other classificatory constructions mentioned in Zeshan (2003) do not figure out in my corpus), the classifiers that take physical properties of the referent (Lyons' 1977: 463 sortal classifiers) abound over the other, and vary over size, shape, and textural appearance of the referents. Such classifier, which varies over size and shape, is called Size and Shape Specifiers (SASS) in SL literature. In the following sections, I have discussed these classifiers with respect to the syntax of ISL.

4.1. Classifier FLAT SURFACE

The ISL signs like TABLE, BED, GARDEN, MAT, BENCH, DESK, STAGE, FLOOR, etc. are articulated with the double-handed B handshape. In all these signs, the lateral palmar surface is not visible to the signer (except GARDEN due to assimilation of orientation with the sign FLOWER) and the finger digit base[3] is towards the addressee. In its citation form, these signs are articulated in front of the chest followed by movement against the line of bilateral symmetry. The two B handshape refers to the length and flatness of the referents; hence, it is classifier handshape marking it. Movement, location, and orientation are an integral part of the sign.

[3] Base of the finger digit.

4.2. Classifier SQUARE

In ISL, TELEVISION, WINDOW PANES, COMPUTER, WARDROBE, CHART, MAP, POSTER, PILLOW, CERTIFICATE, BLACKBOARD, MONITOR SCREEN, etc. are articulated with the double handed G handshape with the vertical palmar surface towards the addressee and the finger digit base towards the sky. The handshape traces the shape of the object aerially in front of the signer's face forming the perimeter of the referent. One might disagree about variations in tracing regarding the perimeter of the referents as an adjectival modification but in its default articulation, it would mean TELEVISION irrespective of its size whether 20", 21", 25", wide screen or portable. The adjectival modification is carried out with the same formational parameters with change in the tracing movement. Therefore, movement is an integral part, and orientation is constant.

4.3. Classifier RECTANGULAR

PHOTOGRAPH, CHOCOLATE, BRICK, GREETING CARD, BUTTER, CURRENCY NOTE, CHEQUE, SENTENCE, etc. are articulated with the double-handed baby-C handshape. In these signs, tracing of the referent's length and/or its perimeter, the orientation and the location vary with no modification in its reference. The handshape forms a semantic class based on the shape and the size of the object abstracting away other properties of the referent.

4.4. Classifier ROUND

The curly-5 handshape is used in the articulation of SUN, MOON, BOWL, ISLAND, COMPACT DISK, etc. In these signs, the palmar surface and the finger digit base vary. These signs are articulated at the various locations e.g. SUN and MOON are articulated above the signer's head[4] and the change in the orientation refers to the different temporal aspect i.e. morning, noon, afternoon, evening, etc. The other signs articulated in front of the chest. The sign COMPACT DISK is accompanied with the pronating movement. The semantic basis for this classifier is round (need not be geometrically perfect) attribute of the referent.

4.5. Classifier HOLLOW

This classifier is articulated with the double-handed curly-5 handshape with different other formational parameters as in PURI, BHATURA[5], COCONUT, TIFFIN BOX, etc. The classifier HOLLOW takes not only the roundness of the referent but also the hollowness inside it. This classifier sharply contrasts with the classifier ROUND. This shows that the hand use is important in classification.

4.6. Classifier SMALL ROUNDISH

The ISL signs like TOMATO, EGG, BRINJAL, POTATO, CHICKOO, ONION, GINGER, COAL, PLUG, NUT (tool), etc. are articulated with the curly-3 handshape with or without shaking movement in front of the signer's chest with the different orientations. The handshape refers to the small roundish attribute of the referent irrespective of the other material and consumable qualities.

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[4] It seems to be a kind of Generalised Meaningful Parameter Values (Woll 1983:40) with respect to the location in the signing space.

[5] Popular Indian fried cuisine.

4.7. Classifier CYLINDRICAL

GLASS (crockery), BOTTLE, VASE, CAN, etc. are articulated with the C handshape. These signs are articulated with the palmar surface towards the line of bilateral symmetry and the finger digit base facing the addressee in the front of the signer's chest. This handshape takes cylindrical shape and handless container into account. The classifier CYLINDRICAL differs from the classifier HANDLE (see section 4. 10) in only one of the aspects of the referent: the handle. This contrast shows that the classifier handshape takes one or two attributes of the referent and classes them distinctly.

4.8. Classifier SHEET

The single handed B handshape is used in the articulation of LEAF, MIRROR, GLASS (pane), PAPAD[6], APPLICATION LETTER, CHEST, WAVE, SKY, FLOPPY DISK, CASSETTE TAPE, BISCUIT, etc. These signs have different orientations, locations, and movement. The classifier SHEET accounts sheet like flatness of the referents leaving aside other dimensional attributes. This classifier contrasts with the classifier FLAT SURFACE and classifier BROAD FLAT SHEET (see sections 4.1 and 4.9) in hand use.

4.9. Classifier FLAT THICK

BOOK, CARD BOARD BOX, PACKET, etc. are articulated with the double-handed U handshape in front of the signer's chest. The orientation is constant- the palmar surface facing the line of bilateral symmetry and the finger digit base towards the ground. This classifier handshape reflects the two-dimensional referent. It is interesting to note that BOOK is articulated with the classifier handshape: double-handed B (as mentioned above in 4.8) but the classifier handshape: double-handed U handshape is used in the verb of motion and location (see section 5).

4.10. Classifier LIQUID

In ISL, a physical classifier but not SASS referring to the textural appearance of the signs like WATER, RUM, WHISKY, GIN, PEPSI (and other soft drinks brand), JUICE, OIL, etc. is articulated with the handshape A' (i.e. thumb extended). The signs articulated with the said handshape are liquid, hence, a classifier LIQUID.

4.11. Classifier HANDLE

Apart from classifiers showing the physical interaction, a function classifier HANDLE articulated with the single-hand S is found ISL. The signs like REFRIGERATOR, BOX, BAG, JUG, LUGGAGE, MUG, BUCKET, DRAWER, CHEST (furniture), etc. is articulated with the said handshape in different orientations and locations. The movement in these signs is local- the handshape shows the configuration of the hand as it moves, uses or tracks an object, or part of an object, therefore, marking the functional interaction of the signer with referent objects. The classifier handshape is articulated for the signs, which have handle and are containers. It differs from the SASS classifier CYLINDRICAL (see section 4.7) on the basis of handle despite sharing the physical attribute with some of the referents and being containers.

The referents described above are bound into respective classes through chaining (see Dixon 1982; Lakoff 1987). Since, class organization is based on the handshape of

[6] Indian fried/roasted cuisine.

the most prototypical exemplar sign from which the class extends, the other formational parameters of signs vary. As described above, all the members of a class are not articulated in a uniform in its citation form.

5. Incorporation and ISL syntax

In ISL, signer has a choice to construct a sentence representing the verb of motion and location with a lexical sign, with/without classifier handshape[7]. Of the thirteen classifiers discussed above, the handshape of the classifiers CYLINDRICAL, FLAT THICK, LIQUID and HANDLE are found in the verbs of location and motion like GIVE, PUT, THROW, DRINK, etc. like in (2) below.

hf----------
rb---------- bf----------
1. FACE-ARC $_{IPSI}$ FEM-IX $_{CONTRA}$ ONE MUG $_{IPSI}$ GIVE $_{CONTRA}$
They give a mug to her. (3-11)

hf------- hf---------- ht----------
2. IX $_{FRONT}$ CL: FLAT SURFACE-TABLE CL: HANDLE-MUG CL: HANDLE
PUT $_{[LOCI: CL: FLAT SURFACE-TABLE]}$
You put a mug on the table.

Though, what governs choice of such constructions is another area of research in ISL, it can be assumed that it is motivated by discourse-pragmatic environment. It is not the assimilation of the handshape of the referent into verb as we find other intervening phrase between the noun and the verb as seen below in (3).

bf----- bf----------
3. FEM-S-I-T-A IX $_{IPSI}$ RAM IX $_{CONTRA}$ BOOK$^{X\,2}$ THREE $_{IPSI}$ GIVE $_{CONTRA}$
Sita gives three books to Ram.

Moreover, even if the referent noun and the verb are adjacent to each other, the handshape retracts back to the onset location from where the verb starts its path movement. This shows the verb maintains its other formational parameters viz. its movement and location features. The onset (optionally) and the offset (obligatorily) mark arguments of the verb, later marks the goal argument.


Fig. 1


Fig. 2


Fig. 3


Fig. 4


Fig. 5

Fig. 1 and Fig. 2 show the onset and the offset of the path movement of the referent noun, MUG, respectively. Fig. 3 and Fig. 4 show the onset and the offset of the verb, respectively; where the handshape of the referent is assumed by the verb in lieu of its handshape in its citation form as shown in Fig. 5. The handshape that combines with the

[7] In Auslan (Schembri 2003: 18) choice is between with a lexical noun or with a classifier handshape.

path movement of the verb is a classifier handshape rather than a lexical noun as we see no other formational features of the sign been combined into verb.

On the other hand, as mentioned above in section 4.9, rather than the handshape of BOOK, the classifier handshape FLAT THICK is articulated in the verbs of location and motion. This also shows the perspective of the referent at the moment of action. The perspective is evidently found in the verbs like THROW. In a sentence, 'He throws paper into a basket'; the signer articulates the verb not in its citation form as it is ungrammatical, but of a classifier handshape SMALL ROUNDISH. It shows that the act of throwing paper, where the paper is crushed into a small roundish shape. Similarly, in a sentence, 'He throws a bottle' the classifier handshape of the referent noun is assumed rather than the handshape of the verb.

In these constructions, signer does not have a choice of handshape between the handshape of the verb and the classifier handshape of the referent. It is obligatory to combine the classifier handshape into verb. The choice is restricted due to the perspective that the referent assumes at the moment of action denoted by verb. The classifier handshape assumed by the verb is not of a nominal sign but of a referent at the point of action. In other words, crushed paper is a small roundish object like mentioned in 4.6; hence, signer is restricted to use only the classifier handshape of the small roundish objects. Similar applies to BOOK and BOTTLE. This evidently shows that the classifier handshape specifies the shape and size of the referent irrespective of its nominal form, which is combined into verb reflecting the perspective. Such perspective on the use of classifier is clearly seen in shape and size classifiers in spoken language too. In Japanese, *manga* (comics) takes any one of the two numeral classifiers: *hon* and *satsu* depending upon the visualising ability (Inoue 2000). This fact clearly underlies in ISL too as discussed above.

As we have seen and discussed above, the handshape is combined with verb not other formational parameters. This closely resembles to the classifier incorporation as found in Mohawk (Baker 1996:13). However, to label this phenomenon in ISL as incorporation or not we need to analyze its syntax.

The approach taken to determine the word order (henceforth, WO), if there is any as assumed in the Principles and Parameters approach, is based on clause as well as on sentence with respect to the transitivity of the verb and the verb typology (based on Padden 1983). It shows that there is no uniform WO in ISL except the fact that verb is strictly final and can stand alone as predication, the overt NP arguments can be scrambled in their pre-verbal position, and the overt NPs-subject and object can be dropped. In ISL, two pre-theoretically mentioned properties of non-configurational language holds:

i. Relative freedom of WO.
ii. The pervasive dropping of NP arguments (Hale 1983).

In ISL, SOV is the basic word order. In a well-formed sentence, the direct object noun needs to be in any left position to the verb. The overt NPs, Tense/NP adverbs are scrambled in different positions to the left of the verb.

In the articulation of verbs of location and motion, the location of the verb in its path movement i.e. onset and the offset mark the subject and the object/goal arguments, respectively. The former is optionally realized through location or through body shift

(towards the argument) and the later is obligatory. The path movement of the verb is between the signer (the subject argument is optionally realized) and the offset i.e. the goal argument as in the sentence below[8].

hf-----
rb------ rb---------- bf----------
4. IX ^{FRONT} FACE-ARC ^{IPSI} STORY MANY TELL $_{ISPI}$
You told many stories to them. (3-6)

Following Jelinek's (1984) Pronominal Argument Hypothesis and Baker's (1996) Polysynthesis Parameter, the onset and the offset count as the subject argument and the object argument of the verb, respectively, receiving theta-role from it directly under agreement relationship as stated in the Morphological Visibility Condition (Baker 1996:17).

In ISL, these agreement morphemes i.e. onset and the offset absorb the case feature and as a result, overt NPs cannot appear in the argument position; they appear at clause peripheral position where Case Filter does not apply. The nonconfigurationality of the overt NPs- subject and object derives from the agreement. The overt NPs- subject and object are left dislocated in an adjunct position as topic (Sinha in prep.).

The overt direct object and the direct object classifier handshape in the verb form co-occur in ISL. An overt direct object does not show agreement with the verb. A grammatical ditransitive sentence is always with an overt direct object. The absence of the overt direct object with or without classifier handshape in the verb form is ungrammatical. As incorporation is one of the agreement morphemes[9], it does not interact with agreement in ISL as we do find co-occurrence of the overt direct object and the incorporated classifier handshape. The overt NP- direct object gets case through complex predicate, which is not relevant to the Morphological Visibility Condition[10] (see Baker 1996: 210, 240fn). In this respect, the nonconfigurationality of NP- direct object derives from the case marking like in Hindi-Urdu rather than due to agreement (including incorporation) like in polysynthesis languages.

To summarise, in ISL we find no restriction on the occurrence of the overt direct object and the direct object classifier handshape, lacks obligatoriness of agreement morpheme, and lacks right dislocation other than the left dislocation of overt NPs as in polysynthesis language. The polysynthesis setting in ISL, therefore, is no, but certainly a nonconfigurational language.

SASSs are like a kind of generic noun showing the visual image of the noun (that differs with respect to the nominal sign) being conceived at the time of action denoted by verb. This is further suggested by a strong quantifier MANY[11]. When a strong quantifier

[8] I expect to show that the optional realisation is due to the subject- topicalisation (Sinha in prep.).
[9] See Anderson's (1982) analysis of agreement in Breton.
[10] Nahuatl uses triple agreement to satisfy the MVC with certain class of verbs i.e. two agreements and noun incorporation. Southern Tiwa has three agreement plus noun incorporation. These facts suggest that the third agreement is part of a very different system not relevant to the MVC. Baker further notes that one would have to modify the Case-based theory of how agreement factors are licensed to allow for this possibility (Baker 1996: 240fn).
[11] Sign MANY in ISL is homophonous to COUNT. 'How many' is a compound of COUNT and WH sign. The figure shows the weak freeze of MANY. The Mohawk classifier for 'fruit' is – ahy-, also the term for 'berry' (Mithun 1986: 391).

modifies noun, the classifier handshape changes. It is no longer a classifier handshape found in bare, indefinite, and numerical/weak quantifier as shown in the above constructions. The handshape that incorporates into the path movement of the verb is as shown below.


Fig. 6


Fig. 7

Fig. 6 and Fig. 7 show the sign MANY at its initial and the final point of articulation, respectively. The handshape of the quantifier as shown in Fig. 7 is incorporated into the path movement of the verb. It strongly suggests that the signer conceives visual image of the referent at the moment of transfer, hence, the classifier handshape changes. The strongly quantified noun is perceived by signer as a single entity, hence, the perspective of the signer is different from that of other modified noun.

A sentence with a strong quantifier can be with the classifier handshape of the quantified noun or the handshape of verb in its citation form but not with the classifier handshape of the referent noun like in other modifications. The handshape of the quantifier shows neither a particular nominal referent nor the state of a referent but a collection of referents that signer visualises at the moment of transfer irrespective of nominal referents. Thus, the classifier handshape in both the constructions show a kind of referent of the superordinate/collective nature, which is very parallel to the 'vehicle' in Cayuga (Mithun 1986) or 'animal' in Mohawk (Baker 1996). The SASSs form a kind of generic noun and in addition with other formational parameters form a noun sign.

5. Skitú ake-'treht-áe´
   Skidoo I- vehicle-have
   I have a skidoo. (Mithun 1986:388)

6. Ro-nehrakó'-u yákʌ' kíkʌ tsi ni-ka-nahskw-íyo-'s kíkʌ
   MsO-surprise-STAT PRT this how PART-NsS-animal-good-HAB this

   kʌ-[i]tsy-u.
   NsS-fish-NSF
   'He was surprised (it is said) at how good-looking the fish were.' (Baker 1996: 9)

The handshape that incorporates into verb is a classifier handshape for collection of thing/s since it is always used irrespective of noun signs of the same kind or different when quantified by MANY, which in the paper is labelled as QUANTUM. Thus, the change in the handshape that incorporates into verb changes the meaning. In other words, the classifier handshape and the lexical noun jointly contribute to reference. The former indicates the referents identity and later its individuation status, and the change in either change the meaning of the whole.

From the above observation, what one can draw from the semantics of the ISL classifiers is about the quantificational nature of classifier. The above described classifiers are used when the referents are countable or part of a set (few, some), and the classifier QUANTUM for not countable or a larger members of a set (many). Hence, the occurrence of particular classifier is an operation over a set for quantification (see Denny 1986).

6. Conclusion

Signer has a choice to incorporate classifier handshape into verb or to sign verb in its citation form, which is assumed to be governed by the discourse-pragmatic factor. ISL classifiers reflect visual image of the referent at the moment of transfer indicated by verb. Quantifier and numerical are quantifying expressions and lack co-occurrence in ISL. The choice of classifier handshape that incorporates into verbs of motion and location depends upon the quantification making a bipartite division between MANY vs. rest. This conclusively leads that the incorporation of the classifier handshape into verb is the incorporation of the highest specifier of the phrase that cross-classifies as well as quantifies a noun, which is syntactically governed by the verb.

The paper, undoubtedly, is a cursory sketch and requires detailed data to address the issue of classifier and other related issues.

Abbreviations & transcriptions

MsO Masculine singular object
STAT Stative
PRT Particle
PART Partitive
NsS Neuter singular subject
HAB Habitual
NSF Noun suffix

hf head forward
rb raised brow
bf brow freeze
ht head tilt

IPSI towards the dominant side of signer.
CONTRA towards the non dominant side of signer.
FRONT towards the front of the signer i.e. addressee.
FEM feminine.
IX index/localisation.
CL: classifier.
LOCI location of sign in signing area.
S-I-T-A finger spelled.
X 2 reduplicated (for pluralisation).
FACE-ARC human plural.

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