Event descriptions and classifier predicates in SLs

Classifier predicates are made up by two simultaneously articulated components: (i) a handshape specific for a class of objects (the classifier) and (ii) a movement in the signing space, which depicts the kind of movement in real space performed by an object in that class. The mimetic character of these predicates led Macken et al. (1993) and Cogill-Koez (2000) to suggest that sign languages are dual-representation languages, employing both a linguistic mode of communication, when frozen signs are used, and a schematic visual representation mode, exemplified by constructions with classifier predicates. At the opposite end is the analysis proposed in Supalla (1982), where both classifier handshape and movement are analyzed as simultaneously articulated linguistic morphemes (or combinations of morphemes). The linguistic character of classifier handshapes is supported by a robust body of evidence showing that they are conventional, combine with each other via rule-governed processes (Liddell and Johnson 1987), and interact with other grammatical rules (Benedicto and Brentari 2004). However, Emmorey and Herzig (2003) provides experimental evidence showing that, while classifier handshapes are categorical, namely variations in handshape do not correspond in a continuous way to variations in real world objects, the placement of these handshapes in space is not: variations in the positions occupied by a classifier are taken to correspond in a quasi-continuous way to variations in the positions of real world objects. This suggests that, unlike classifier handshapes, movement in classifier predicates is non-linguistic. This conclusion is supported by further experimental evidence (Giacomello 2007) and more recently by neurological evidence (Emmorey 2001). However, this conclusion is also puzzling, since it means that in ASL sentence (a) the same sign displays both linguistic and non linguistic features. How can this be?

(a)   CAR CL$_{vehicle}$-DRIVE-PAST   (ASL)
        "a car drove past"

I propose that classifier predicates are indexical predicates similar to English (b):

(b)   moves in a way similar to this.

The movement component is no linguistic morpheme, but plays the role of a demonstration providing the reference for an indexical term in the logical representation of the predicate (this accounts for the non categorical nature of movement). Notice that, in this analysis, classifier predicates are linguistic items, like the predicate in (b) (which accounts for the categorical nature of the handshape component). This means that, in principle, sign languages are not dual representation languages any more than spoken languages are (although sign languages may make a more massive use of demonstrative predicates like (b)). Independent evidence for the analysis is provided by the fact that classifier predicates can combine with aspectual morphology, as LIS sentence (c) shows (FATTO indicates that the event is completed):

(c)   CAR $CL_{vehicle}$-DRIVE-PAST FATTO   (LIS)

The logical form assigned to (a) above is given in (d) and the interpretation of the classifier predicate is given in (e):

(d) $[_{IP}\exists e\ [_{IP}$ CAR $[_{I'}\ \lambda_i\ [_{I'}$ I $[_{VP}\ [_V\ cl_{i,vehicle}$MOVE$_e\ ]\ ]\ ]\ ]\ ]\ ]$

(e) $\exists e \exists x_{i,k}[car(x_{i,vehicle})\ \wedge\ move(x_{i,vehicle},e)\ \wedge\ similar_{S \to L}(dthat[the\ movement\ of\ cl^{c_A}_{i,vehicle}],e)]$

According to this interpretation, the classifier verb $cl_{vehicle}$-MOVE$_e$ in (d) denotes, in a context c, the property of being a movement of a vehicle which is similar (in the relevant respects) to the movement performed by signing the classifier handshape $cl_{vehicle}$ in c (see Kaplan 1977 for the interpretation of the operator d-that). The analysis is refined further to account for stative classifier predicates, in which the movement is not iconic, and for cases described in Supalla (1990) in which classifier movement can represent the manner of locomotion, but it cannot simultaneously represent the path and direction of locomotion (although it would be physically possible for the signer to do so). The cases in Supalla (1990) show that an adequate interpretation for classifier predicates cannot simply refer to the movement performed while signing the predicate, as in (e), but has to distinguish between the manner, path and direction of the movement.

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