

1. Introduction

- Adjectives in American Sign Language (ASL) have been discussed in various papers, but there remain some issues. This paper aims to comprehensively investigate ASL adjectives and to provide a unified account for various observations.

- I will propose that:
 - Prenominal adjectives are adjuncts to the noun and follow the ordering constraints proposed by Cinque (1994).
 - Postnominal adjectives are predicates of relative clauses.
 - 'Adjectives' that can be used with aspectual inflections are actually verbs.

2. Background

- First, MacLaughlin (1997) observed that prenominal adjectives in ASL follow the general word order suggested by Cinque (1994): QUALITY > SIZE > SHAPE > COLOR, as in (1). On the other hand, postnominal adjectives in ASL permit free order, as in (2).

- (1). a. [BIG RED BALL IXadv]_{DP} b. *[RED BIG BALL IXadv]_{DP}
 (2). a. [BALL BIG RED IXadv]_{DP} b. [BALL RED BIG IXadv]_{DP} (MacLaughlin 1997)

- Second, MacLaughlin (1997) noticed that prenominal adjectives are attributive while postnominal adjectives are predicative in nature. For example, OLD FRIEND in (3a) can mean 'a friend that has been known for a long time' or 'a friend who is old'. However, with a postnominal adjective, the phrase only means 'a friend who is old'.

- (3). a. [POSS_{1p} OLD FRIEND]_{DP} b. [POSS_{1p} FRIEND OLD]_{DP} (MacLaughlin 1997)

- Third, non-predicative adjectives in ASL can never occur post-nominally.

- (4). a. *[STUDENT IX]_{DP} FORMER b. *[STUDENT FORMER]_{DP} (MacLaughlin 1997)

- Fourth, Klima and Bellugi (1979) suggest that in ASL aspectual inflections can apply to verbs and some adjectives (see (5a)). Inflected adjectives can only occur as a predicate of a clause (see (5b)).

- (5). a. relative clause
 MAN SICK+cont DIE YOUNG
 'A man who is continuously sick will die young.'
 b. *JOHN KNOW [SICK+cont MAN]_{DP} (MacLaughlin 1997)

- Fifth, Bernath (2009, 2010) suggests that postnominal adjectives cannot co-occur with prenominal ones, unless the prenominal adjectives are those non-predicative adjectives, like MAIN and FORMER, and/or unless the postnominal adjective is SICK or EXCITED (see (6)).

- (6). a. *BIG BALL RED b. FORMER STUDENT SMART c. TALL BOY SICK

- Sixth, quantifiers but not adjectives in ASL can be stranded by the topicalization of the noun (Boster 1996). Illustrated by (7), the quantifier THREE can be left behind, but an adjective cannot.

- (7). a. t
 BOOK_i I WANT THREE *ti* b. t
 BOOK_i I WANT THREE RED *ti* (Boster 1996)

3. Previous Analyses and Problems

- Boster (1996) proposes that all adjectives in ASL are adjuncts base-generated either before or after the noun.
 - It is widely assumed that only phrases, rather than segments or bar-level categories, can be elided or moved.
 - If ASL adjectives are adjuncts (i.e., segments of an NP), they cannot be left behind.
 - However, Boster's analysis cannot explain the differences between prenominal and postnominal adjectives in ASL (cf. (1), (2), and (3)).

- MacLaughlin (1997) proposes disparate analyses for prenominal and postnominal adjectives: the former are specifiers of Modifier Phrases, as in (8); the latter are adjuncts of NP, and there is a null operator linking the AP with the NP by a rule of predication (cf. Williams 1980), as in (9).

- (8). [_{ModP} [_{AP} BIG] [_{Mod'} (size) [_{ModP} [_{AP} RED] [_{Mod'} (color) [_{NP} BALL]]]]]

- (9). [_{NP} [_{NP_i} MAN] [_{AdjP} Op_i [_{Adj'} OLD]]]

- Bernath (2009, 2010) suggests that postnominal adjectives are resulted from NP-raising.
 - As shown in (10), the NP originates below ModPs, but it can move up to a position higher than ModPs but always lower than the non-predicative adjectives.
 - Bernath (2009, 2010) further proposes that the adjectives that can take aspectual inflections, like SICK, are adjective-verbs (see also Loos (in press)).

- (10). [_{ModP} [_{AP} FORMER [_{XP} [_{X'} X [_{NP_i} BALL [_{ModP} [_{AP} BIG] [_{Mod'} (size) [_{ModP} [_{AP} RED] [_{Mod'} (color) [_{NP} *ti*]]]]]]]]]

- Both Bernath's and MacLaughlin's analyses incorrectly expect that prenominal adjectives can be stranded by the topicalization of the NP, since they are specifiers of Modifier Phrases above the NP. Also, Bernath's analysis does not expect the interpretational differences between prenominal and postnominal adjectives (cf. (3)). Moreover, none of the existing analyses comprehensively consider non-manual markings.

4. New Observations

- First, based on the data from ASL native signers, I found certain non-manual markings are always used with postnominal but not prenominal adjectives: brow raising, head tilted back, and upper lip raising.

- Importantly, Liddell (1980) indicates that the same set of non-manual markings are used simultaneously with ASL relative clauses.
- Therefore, the accurate gloss for phrases with postnominal adjectives should include the non-manual markings, as in (11).

- (11). a. relative clause
 [BALL BIG RED]_{DP} b. relative clause
 [POSS_{1p} FRIEND OLD]_{DP}

- Second, with the non-manual markings, prenominal and postnominal adjectives can co-exist (see (12)), contrary to the observation by Bernath (2009) (cf. (6a)).

- (12). relative clause
 [BIG BALL RED] DISAPPEAR

- Finally, some signers tended to add SELF between a noun and a postnominal adjective, together with the non-manual markings mentioned above, as in (13).

- (13). relative clause
 IX_{1p} BUY BALL SELF BIG RED
 'I bought a ball which is big and red.'

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Selected references: Cinque. 1994. On the evidence for partial N-movement in the Romance DP. Klima and Bellugi. 1979. *The Signs of Language*. Liddell. 1980. *American Sign Language syntax*. MacLaughlin. 1997. *The structure of determiner phrases: Evidence from American Sign Language*.

5. New Proposals

- Based on all the observations, I propose that:
 - ASL prenominal adjectives are adjuncts to the noun, as proposed by Boster (1996), and that they should obey the ordering constraints by Cinque (1994);
 - postnominal adjectives are all predicates in relative clauses (copula structures);
 - the 'adjectives' that can be used with aspectual inflections are actually verbs, as proposed by Bernath (2009, 2010) and Loos (in press).

- The 'relative clause' analysis of postnominal adjectives expects their parallel with relative clauses: similar non-manual markings, and the presence of SELF.

- Also, according to this new proposals, both prenominal and postnominal adjectives are actually adjuncts to the noun. The difference is that a prenominal adjective is an AP (see (14a)), while a postnominal adjective is a CP (see (14b)). In either case, ASL adjectives cannot be stranded by the topicalization of the noun.

- (14). a. IX_{1p} BUY [_{NP} [_{N'} [_{AP} RED] [_{N'} BOOK]]] b. relative clause
 'I bought a red book.' IX_{1p} BUY [_{NP} [_{N'} [_{N'} BOOK] [_{CP} RED]]]
 'I bought a book which is red.'

- Finally, the proposal that the aspect-inflected 'adjectives' are actually verbs rather than adjectives has some advantages. Any analyses not treating aspect-inflected adjectives as verbs have to explain:

- why ASL aspectual markers are not restricted to verbs;
- why not all adjectives can be used with these inflections;
- why the aspect-inflected adjectives can only occur as predicates in copula structures (cf. (5)).

The current proposal can solve all these questions.