POLYSYNTHETIC WORD-INTERNAL ADJECTIVES AND VERB-LIKE ADJECTIVES IN INUIT[*]

Richard Compton
University of Toronto

This paper argues, contra previous claims in the literature, that Inuktitut possesses two class of adjectives; a class of strictly-attributive adjectives and a class of verb-like adjectives. Evidence is presented to distinguish these strictly-attributive adjectives from derivational morphology and similarly to differentiate verb-like adjectives from verbs.

1. Introduction

Previous work on Eskimoan languages has claimed that they lack a category of adjectives (as well as a category of adverbs). For instance, Fortescue (1984, pp. 202-3) recognizes only nouns and verbs as lexical categories in West Greenlandic (WG):

> *West Greenlandic words (excluding enclitics) fall with few exceptions into three easily distinguishable major classes: nominals, which take number, case, and personal possession inflections; verbs, which take mood, person and number inflections; and particles, which remain uninflected.*

Similarly, Sadock (2003, p. 4) only recognizes nouns and verbs as lexical categories in WG:

> *The morphology of WG distinguishes between nominal and verbal forms. Patterns of inflection and derivation show that there are two major morphological classes in WG. To a large extent, these also correspond to the two major classes of words in the syntax [...] and will therefore be called nouns and verbs. There are subtypes of each of these major classes, but no other comparable morphological classes in WG.*

Dorais (2010, p. 70) makes an analogous claim for Arctic Quebec Inuktitut:

> *In the Nunavik dialect, as in the Inuit language in general, there are four basic types of words: nouns, verbs, localizers/demonstratives, and small words.*

De Reuse (1994)'s analysis of Central Siberian Yupik and Jacobson (1995)'s grammar of Central Alaskan Yup'ik employ similar categories, with both excluding adjectives.

Such work has often made two assumptions that precluded adjectives (and adverbs) from constituting separate lexical categories. First, it has been assumed that lexical categories should have distinct inflectional morphology. Second, in approaches that assume the Lexicalist hypothesis, subparts of "words" will presumably be excluded from constituting their own lexical categories.

While Inuit and other languages have been claimed to lack adjectives, work by Dixon and Baker suggests that language-internal criteria can be discerned to differentiate adjectives from both nouns and verbs cross-linguistically. Dixon (2004, p. 1) "suggest[s] that a distinct word class 'adjectives' can be recognized for every human language". Similarly, Baker (2004) argues that all languages have a discernable class of adjectives (p.191). We can test these predictions against Inuktitut, which has been widely claimed to lack adjectives.

Inuit exhibits two classes of elements that are potential candidates for an adjective class. Fortescue (1980)'s analysis of affix ordering in West Greenlandic includes a set of derivational morphemes which he calls "nominal modifiers". This set of approximately 45 suffixes attach to nouns. [1,2]

(1)   saaq-jjuaq
        table-*big*
        'the/a big table'

(2)   iglu-tuqaq
        house-*old*
        'the/a old house'

We also observe a relatively larger number of stative intransitive 'verbs' with prototypically adjectival meanings.

---

[1]   Unless otherwise indicated, examples are from the South Baffin dialect of Inuktitut and were elicited by the author, except for those from Spalding (1998)'s dictionary, which are from the Aivilik dialect of Inuktitut. Abbreviations include: ABS=absolutive; ALLAT=allative; BECAUSE=becausative mood; COND=conditional mood; CONTEMP=contemporative mood; DEC=declarative mood; DIST.FUT=distant future tense; DIST.PAST=distant past tense; ERG=ergative; OBL=oblique/instrumental case; PL=plural; POSS=possessive; REC.PAST=recent past tense; SG=singular. Transcription conforms to a broad IPA except that <ng> = [ŋ], <nng> = [ŋŋ], <g> = [ɣ], <jj> = [ddʒ], and <r>=[ʁ].

[2]   While Fortescue lists 46 "nominal modifiers" for West Greenlandic, the exact number and their meanings vary across Inuit. Fortescue (1983) lists 50 entries for Tarramiut (Arctic Quebec Inuktitut), 27 entries for Copper (Western Canadian Inuktitut), and 34 entries for North Slope (Alaskan Inupiaq). Analogous cognates for many of these exist in Yupik as well.

(3) taki-juq
     tall-DEC.3SG
     '(he/she/it) is tall'

(4) sukka-juq
     fast-DEC.3SG
     '(he/she/it) is fast'

I argue that both of these sets constitute adjective classes in Inuit. First, I argue that Fortescue's "nominal modifiers" constitute a class of suffixal strictly-attributive adjectives. Second, I argue that stative intransitive 'verbs' with stereotypically adjectival meanings constitute a class of verb-like adjectives.

2.   Evidence for a class of strictly-attributive adjectives

2.1   Syntactic function

Dixon (2004) notes considerable variation in how adjectives can be used cross-linguistically. While in some languages they can act as intransitive predicates (e.g. Japanese), in others they can be copular complements (e.g. English). Conversely, Fortescue's "nominal modifiers" lack such possibilities and can only modify nouns attributively:

(5) umingma(g)-jjuaq
     muskox-*big*(ABS.SG)
     √'the/a big muskox'
     *'The/a muskox is big.'

While the inability to be used predicatively could be construed as evidence against treating these elements as adjectives, Dixon notes that adjectives in Malayalam, Hua, Yoruba, and Dagbani are similarly restricted to "function as modifier[s] within an NP" (p.28).
     Furthermore, English possesses a small set of adjectives that cannot be copular complements and appear restricted to attributive modification (e.g. *mere*, *sole*, *live*, *former*, etc.).

2.2   Position

The position of "nominal modifiers" between nouns (including nominalizers) and their case, number, and possessive marking is consistent with analyses of the DP (e.g. Svenonius 2008) in which adjectives merge above *n*P but below other functional structure:

(6) ulu(g)-jjua-ra
     ulu-*big*-1SG.POSS.ABS.SG
     'my big ulu (a traditional woman's knife)'

(7) pisuk-tunga   kuu-ralaa-kkut
     walk-DEC.1SG   river-*small*-VIALIS.SG
     'I'm walking across the little river.'

(8) uqalimaar-vig-jjuaq
     [read-LOCATIVE.NOMINALIZER]-*big*(ABS.SG)
     'big library'

2.3 Stacking and variable order

As we might expect if "nominal modifiers" are adjoined APs, they can be stacked and exhibit variable ordering, as illustrated in the following examples:

(9) qarisauja-ralaa-kulu-tuqa-nnguaq
     computer-*small-adorable-old-pretend*
     'old adorable small pretend computer' (e.g. in a toy store)

(10) a.   qarisaujat-tsiava-ralaaq
            computer-*good-small*
            'small good computer'

     b.   qarisauja-ralaat-tsiavaq
            computer-*small-good*

(11) a.   iglu-ttsiava-kulu-nnguaq
            house-*good-adorable-pretend*
            'good adorable pretend house'

     b.   iglu-kkulu-ttsiava-nnguaq
            house-*adorable-good-pretend*

In some cases it is possible to discern different meanings based on the relative scope of these modifiers:

(12) a.   'Bush'-rulu-nnguaq
            B.-*darn-pretend*
            'pretend, darn Bush' (=you may like the doll/image, but not Bush)

     b.   'Bush'-nngua-ruluk
            B.-*pretend-darn*
            'darn, pretend Bush' (=you may like Bush, but not the doll/image)

Such readings, and stacking and variable ordering generally, are consistent with these modifiers being adjectives.

2.4 Productivity and compositionality

Adjective-noun combinations in languages like English are widely productive and highly composition. Similarly, Inuit "nominal modifier"-noun combinations

appear to exhibit a high degree productivity and compositionality:

(13)   gavama-taasaar-nut
        government-*new*-ALLAT.PL
        'by new government[s]'
        (Legislative Assembly of Nunavut, 2006, p. 1433)

(14)   aanniavi-tuqaq
        hospital-*old*
        'old health facility'
        (Legislative Assembly of Nunavut, 2005, p. 1783)

However, just as other languages exhibit some lexicalized/idiomatic adjective-noun combinations (e.g. *little person* 'dwarf', *raisin sec* 'raisin; *lit.* dry grape', etc.), we find similar combinations in Inuit:

(15)   qimmi-jjuaq
        dog-*big*
        'horse'

(16)   ataata-tsiaq
        father-*good*
        'grandfather'

Furthermore, just as, for instance, *little person* in English can be used with its compositional, non-idiomatic meaning, my consultant was able to use 0 with its non-idiomatic meanings of 'big dog'.

2.5   Degree modifiers

Baker (2004) points to compatibility with degree modifiers as a diagnostic for adjectives and at least one degree modifier, *vijjuaq* 'very', combines with nominal modifiers:

(17)   iglu-tuqa-vijjuaq
        house-*old*-very
        'very old house'

Such degree modification is consistent with the properties of attributive adjectives in languages like English.

2.6   Comparatives, superlatives, depictives, and resultatives

Baker (2004) also lists compatibility with comparatives, superlatives, and depictive/resultative constructions as diagnostics for differentiating adjectives

cross-linguistically, however I have not been able to find "nominal modifiers" in such constructions.[3]

This incompatibility may be due to their non-predicative, strictly-attributive status, since in English strictly-attributive adjectives also appear to be incompatible with these constructions, as illustrated below:

(18)   the (*more/most) *live/mere/former* specimen

(19)   *proved the specimen *live/mere/former*

Thus, while "nominal modifiers" are not compatible with comparatives, superlatives, and depictive/resultative constructions, we find a similar situation in languages like English among strictly-attributive adjectives.

2.7   Adverbial usage

Dixon also states that "in some languages adjectives may also modify verbs, either in plain form or via a derivational process" (p. 11). Indeed, we find examples of "nominal modifiers" modifying verbs:

(20)   niri-tsiaq-tuq
        eat-*good*-DEC.3SG
        'He/she is eating very well.'

(21)   sini-jjuaq-lauq-tuq
        sleep-*big*-DIST.PAST-DEC.3SG
        'He/she slept for a long time.'

Such examples mirror similar adverbial uses of adjectives in English (e.g. *They've been eating good*).

3.   Evidence for a class of verb-like adjectives

Verb-like adjectives exhibit the same person, mood, tense, etc. marking as intransitive verbs. Accordingly, evidence to distinguish them from verbs will need to be found elsewhere.

---

[3]   While trying to elicit comparatives/superlative constructions involving "nominal modifiers", I encountered the following construction:
        (i)   saaq-jjua-(ng)u-niqsa-u-juq
                table-big-COPULA-COMPARATIVE-COPULA-DEC.3SG
                'It is the bigger table.'
However, there is a copula intervening between the adjective and comparative morpheme, suggesting that the comparative is likely modifying the entire incorporated NP 'big table'.

3.1 Comparatives and superlatives?

We might expect adjectives to be uniquely compatible with comparative and superlative constructions. However, while verb-like adjectives are compatible with such constructions, as illustrated in (22)-(23), verbs appear to be equally compatible with this construction, as illustrated in (24)-(25).

(22) John   taki-niqsaq   Miali-mit
      John   tall-COMPARATIVE[4] Mary-OBL.SG
      'John is taller than Mary.'

(23) John   taki-niqpaaq   (asivaqti-nit)
      John   tall-SUPERLATIVE   (hunter-OBL.PL)
      'John is the tallest (of the hunters).'

(24) John   sining-niqsaq   asivaqti-mit
      John   sleep-COMPARATIVE   hunter-OBL.SG
      'John slept more than the hunter.'

(25) John   sining-niqpaa-(ng)[5]u-juq   asivaqti-nit
      John   sleep-SUPERLATIVE-COPULA-DEC.3SG   hunter-OBL.PL
      'John slept the most of all the hunters.'

Accordingly, comparative and superlative constructions do not allow us to differentiate verb-like adjectives from other stative intransitive verbs in Inuktitut.

3.2 Compatibility with degree heads?

Another potential criteria for distinguishing verb-like adjectives from verbs is that of compatibility with degree heads. However, while degree modification is possible by elements such as *-luaq-* 'too', verbs can also appear in the same construction, as illustrated below:

---

[4] Comparative and superlative constructions involving the copula are also possible, suggesting that the comparative and superlative morphemes are nominalizers:
    (i) John   taki-niqsa-u-juq   Miali-mit
      John   tall-COMPARATIVE-COPULA-DEC.3SG   Mary-OBL.SG
      'John is taller than Mary.'
    (ii) John   taki-niqpaa-(ng)u-juq
      John   tall-SUPERLATIVE-COPULA-DEC.3SG
      'John is the tallest.'
[5] The segment 'ng' [ŋ] is inserted before the noun-incorporating copula 'u' to avoid a phonologically illicit sequence of three vowels.

(26) qarlii-t[6]   miki-luaq-tut
      pants-ABS.PL small-DEGREE-DEC.3PL
      'The pants are too small.'

(27) nunasiuti   sukka-luaq-tuq
      car(ABS.SG)   fast-DEGREE-DEC.3SG
      'The car is too fast.'

(28) sini-luaq-tuq
      sleep-DEGREE-DEC.3SG
      'He/she is sleeping too long/much.'

(29) nuluaq   pukta-luaq-tuq
      fish.net(ABS.SG)   float-DEGREE-DEC.3SG
      'The fish net is floating too much.'

Consequently, compatibility with such degree heads does not appear to disambiguate verb-like adjectives and stative verbs. While this might be construed as evidence against verb-like adjectives forming a class, Doetjes (2008) observes a similar situation in French whereby degree modification by *trop* 'too' is not restricted to adjectives.

3.3   Compatibility with depictives and resultatives?

Unfortunately (for the goal of this paper), Inuktitut appears to lack depictive/resultative constructions. As mentioned above, suffixal adjectives are strictly-attributive and thus cannot act as depictives or resultatives. Furthermore, verb-like adjectives project clausal structure, yielding a second clause when we attempt to get depictives or resultatives:

(30) kautaujaq-tuq   savirajar-mit   salli-ti-gasuaq-łuniuk
      hammer-DEC.3SG   metal-OBL.SG   flat-CAUS-try-CONTEMP.3SG.4SG
      'He/she is hammering the metal and/while trying to make it flat'
      (Intended: "He/she hammered the metal flat.")

(31) angijaq-łuni   aquq-tuq
      drunk-CONTEMPORATIVE.3SG   drive-DEC.3SG
      'While being drunk, he/she is driving.'
      (Intended: "He/she is driving drunk.")

In sum, depictives and resultatives are not possible in Inuktitut, and thus cannot be used to differentiate adjectives from verbs.

---

[6] Note that in dialects that possess dual number inflection this word normally bears dual number; i.e. *qarliik* 'pair of pants or trousers' (Spalding, 1998, p.110). My consultant's dialect lacks the dual.

3.4 Compatibility with modals and nominalizations under modals

I tested the compatibility of verb-like adjectives and stative intransitive verbs with modals, and while the consultant often had to nominalize verb-like adjectives, there were exceptions that made this test inconclusive.

However, one difference that did emerge was that while the verb-like adjectives were compatible with the nominalization construction below modals, real verbs were not:

(32) taki-ju-u-qu-guviuk   taki-ju-u-gunnaq-tuq
      tall-DEC-COPULA-want-COND.2SG.3SG   tall-DEC-COPULA-CAN-DEC.3SG
      'If you'd like it to be tall, it can be tall.'

(33) angi-ju-u-qu-guviuk   angi-ju-u-gunnaq-tuq
      big-DEC-COPULA-want-COND.2SG.3SG   big-DEC-COPULA-CAN-DEC.3SG
      'If you want it to be big, it can be big.' (e.g. cooking bannock)

(34) * sini-ju-u-qu-guviuk   sini-ju-u-gunnaq-tuq
      sleep-DEC-COPULA-want-COND.2SG.3SG   sleep-DEC-COPULA-CAN-DEC.3SG
      (Intended: 'If you want him/her/it to sleep, he/she/it can sleep.')

(35) * pukta-ju-u-qu-guviuk   pukta-ju-u-gunnaq-tuq
      float-DEC-COPULA-want-COND.2SG.3SG   float-DEC-COPULA-CAN-DEC.3SG
      (Intended: 'If you want it to float, it can float.')

Consequently, compatibility with nominalization under a copula and a modal appears to be a reliable diagnostic for differentiating verb-like adjectives in Inuktitut.

3.5 Compatibility with negative marker -it-

Compatibility with the negative marker -it- which creates antonyms also differentiates verb-like adjectives from verbs (examples from Spalding (1998)'s dictionary):

(36) a.   akau-juq
            good-DEC.3SG
            'it is good'

      b.   aka-it-tuq
            good-NEG-DEC.3SG
            'it is bad'

(37) a.   akłu-juq
            poor-DEC.3SG
            'he is poor'

b. akłu-it-tuq
poor-NEG-DEC.3SG
'he is rich'

While the negative morpheme *-it-* also occurs with nouns, it never modifies a real verb directly[7], thus differentiating verbs from verb-like adjectives.

3.6   An inflectional difference in the Siglitun dialect

Finally, I have recently learned from Schöneborn (2002) that at least one western dialect, Siglitun, does in fact make an inflectional distinction between verbs and verb-like adjectives when used predicatively[8] (p. 106; using his glossing but IPA; emphasis in original):

(38)   ani-**jua**-q
go.out-indic-3sg
'he went out'

(39)   nakuu-**ju**-q
be.fine-indic-3sg
'it is fine, good'

Such phenomena suggest that stative intransitives with prototypically adjectival meanings do indeed constitute a class of verb-like adjectives.

4.   Conclusion

In sum, I have argued for a class of strictly-attributive adjectives in Inuit based on (i) their position in DP with respect to functional heads (e.g. K, #, Poss), (ii) stacking and variable ordering, (iii) their high degree of productivity and compositionality, and (iv) the adverbial usage of some strictly-attributive adjectives to modify verbs

Furthermore, I have argued for a class of verb-like adjectives in Inuit based on (i) their compatibility with nominalization under a copula (as compared with verbs), (ii) their compatibility with the contrary negator *-it-*

---

[7] For instance, *-it-* can modify an adverbial such as *gajuk* 'frequently' that is in turn modifying a verb:
  (i) pi-gajuk-tuq   (Spalding, 1998, glossing added)
       do-*frequently*-DEC.3SG
       'he does *s.t.* or gets *s.t.* frequently or always'
  (ii) pi-gaju-it-tuq
       do-*frequently*-NEG-DEC.3SG
       'he does *s.t.* or gets *s.t.* hardly ever or seldom'

[8] Schöneborn uses the term *Property Denoting Lexeme* (PDL) to refer to the classes I have argued to be adjectives. He notes that while Siglitun uses *-jua-* and *-ju-* to differentiate verbs and PDLs when they're used predicatively, in attributive constructions (which I have argued elsewhere to be cases of a nominalized clause in apposition with the head noun) the distinction is instead one of definiteness.

(which is compatible with nouns and verb-like adjectives, but not verbs), and finally, (iii) the existence of an inflectional difference between verbs and verb-like adjectives in the dialect of Siglitun.

Consequently, Inuit appears to conform to Baker (2004) and Dixon (2004)'s prediction that all languages possess an adjective class.

References

Baker, M. C. (2004). *Lexical Categories.* Cambridge: Cambridge: Cambridge University Press.

de Reuse, W. J. (1994). *Siberian Yupik Eskimo: the language and its contacts with Chukchi.* Salt Lake City: University of Utah Press.

Dixon, R. (2004). Adjective Classes in Typlogical Perspective. In R. Dixon, & A. Y. Aikhenvald (Eds.), *Adjective Classes: A Cross-Linguistic Typology* (pp. 1-49). Oxford: Oxford University Press.

Doetjes, J. (2008). Adjectives and degree modification. In L. McNally, & C. Kennedy (Eds.), *Adjectives and Adverbs: Syntax, Semantics, and Discourse* (pp. 123-155). Oxford, UK: Oxford University Press.

Dorais, L.-J. (2010). *The Language of the Inuit: syntax, semantics, and society in the Arctic.* Montreal & Kingston: McGill-Queen's University Press.

Ernst, T. (2004). *The Syntax of Adjuncts.* Cambridge, UK: Cambridge University Press.

Fortescue, M. (1983). *A comparative manual of affixes for the Inuit dialects of Greenland, Canada, and Alaska.* Copenhagen: Kommissionen for videnskabelige Undersøgelser i Grønland (The Commission for Scientific Research in Greenland).

Fortescue, M. (1980). Affix Ordering in West Greenlandic Derivational Processes. *International Journal of American Linguistics , 46* (4), 259-278.

Fortescue, M. (1984). *West Greenlandic.* London: Croom Helm.

Jacobson, S. A. (1995). *A Practical Grammar of the Central Alaskan Yup'ik Eskimo Language.* Fairbanks, AK: Alaska Native Language Center, University of Alaska Fairbanks.

Legislative Assembly of Nunavut. (2005). *Debates (Hansard), 2nd Assembly, 2nd Session.* Retrieved 2010- 23-08 from http://www.assembly.nu.ca/inuktitut/debates/2nd_assembly/2nd_session/Hansard_20050315.pdf.

Legislative Assembly of Nunavut. (2006). *Debates (Hansard), 2nd Assembly, 3rd Session.* Retrieved 2011-27-04 from http://www.assembly.nu.ca/sites/default/files/Hansard_20060307_Inuktitut.pdf;

Sadock, J. (2003). *A Grammar of Kalaallisut (West Greenlandic Inuttut). Languages of the World/Materials.* (Vol. 162). Muenchen: Lincom Europa.

Schöneborn, T. (2002). Differences of adjectival forms in Eskimo dialects. In L. Bar-el, L. Tamburri Watt, & I. Wilson (Ed.), *Proceedings of WSCLA VII - The Seventh Workshop on Structure and Constituency in Languages of the Americas. 10*, pp. 103-117. Vancouver: UBCWPL.

Spalding, A. (1998). *Inuktitut - A Multi-dialectal Outline Dictionary (with an Aivilingmiutaq base).* Iqaluit, Nunavut: Nunavut Arctic College.

Svenonius, P. (2008). The position of adjectives and other phrasal modifiers in the decomposition of DP. In L. McNally, & C. Kennedy (Eds.), *Adjectives and Adverbs: Syntax, Semantics, and Discourse* (pp. 16-42). Oxford, UK: Oxford University Press.