Degree constructions in the landscape of Navajo grammar
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1 Introduction

Bogal-Allbritten (2013, 2016) explored Navajo degree constructions with gradable adjectival predicates:

(1) a. Alice shi-laah ńínlnééz.
   A. 1O-beyond 3S.tall.CA
   'Alice is taller than I am.'

b. Alice shí-gi ńínlnééz.
   A. 1pro-at 3S.tall.CA
   'Alice is as tall as I am.'

(2) a. Alice shi-láah-go nineez.
   A. 1O-beyond-sub 3S.tall
   'Alice is taller than I am.'

b. Alice shí-gi ńat'ée-go nineez.
   A. 1pro-at 3S.be-sub 3S.tall
   'Alice is as tall as I am.'

I gave the adjectival predicates above the same denotation:

(3) [ńínlnééz / nineez] = λx.λd. tall(x)(d)

However, I showed that morphological differences in adjectival predicates correlated with differences in their syntax.

- Syntactic transitivity of adjectival predicates explains facts incl. obligatory overt degree expressions with CA-marked predicates.

Syntax in Bogal-Allbritten (2016, 2013) (see for further motivation)
This talk will not focus on the morphosyntax of adjectival predicates or the semantics of sentences like (1) and (2).

Instead, I focus on the standard markers — postposition -lááh and enclitic -gi — seen above. I discuss their use with non-adjectival predicates.

In my account of sentences like (1) and (2), all meaning associated with specific degree constructions came from standard markers.

- Standard markers quantify over sets of degrees, e.g. (5) cf. Seuren’s (1973) and Schwarzschild’s (2008) entry for English more.

(5) a. [-lááh] = λdₐλDₐˈdₐ[Dₐˈd′(d′) & ¬D(d′)]
   b. [(1-a)] =∃dₐ.[Alice is tall to dₐ] & ¬[I am tall to dₐ]

But while these entries may suffice for (1) and (2), they do not consider the broader distribution of standard markers in Navajo grammar.

Today:

- Part 1: Using -lááh and -gi phrases to express location or manner of non-adjectival predicates.
- Part 2: The comparative marker -lááh is also used to express superlative meanings. How does superlative meaning arise?

1Previous work reported here made possible by Navajo consultants Leroy Morgan, Irene Silentman, Louise Kerley, and especially Ellavina Perkins, who contributed the new data about superlatives.
2 Locative constructions with -lááh and -gi

Both -lááh and -gi occur in locative constructions.

Key questions:
• How do locations relate to degrees?
• Do such constructions still involve degrees and gradability?
  Are entries like (5-a) sufficient?

(6) Locative uses of -gi:
   a. Tl’éédáá’ kintah-gi yóó ’íiyá.
      last.night town-at 1S.get.lost.PERF
      ‘I got lost in town last night.’ (YM 1987: d480)
   b. Diné bikéyah bikáa’-gi k’ad diné lá’í bá
      Navajo land-at now Navajo some 3O.for da’adá.
      PL.eating.takes.place
      ‘A number of Navajos are now running restaurants on
      the reservation.’ (YM 1987: d7)

(7) Locative uses of -lááh:
   a. Tóta bi-lááh-góó níseyá.
      Farmington 3O-beyond-LOC 1S.go.PERF
      ‘I went beyond Farmington.’ (YM 1987: d85)
   b. Kǫ’ yee naagháhí dzíl bi-lááh-go shil
      balloon mountain 3O-beyond-sub 1O.with
      dah diildo.
      3S.fly.up.PERF
      ‘I went up higher than the mountains in my balloon,’
      ‘I flew up beyond the mountains.’ (YM 1987: d342)

The predicates modified above are neither adjectival nor gradable.
• The predicates describe position (6) or directed motion (7).
• A -gi phrase seems to identify a point in space.
• A -lááh phrase seems to describe the path of directed motion.

Overlap between comparative and directed motion constructions is
crosslinguistically well-attested (Stassen 1985).
• Hohaus (2012) discusses comparatives in Samoan (Polynesian)
  that use the directional particle atu ‘forth, away’.3

(8) a. E umi atu Malia ia Ioane.
    TENSE tall away Mary PREP John
    ‘Mary is taller than John.’ (Hohaus 2012: (1))
   b. Sa savali atu Malia i le lua kilomita.
      TENSE walk away Mary PREP the two kilometer
      ‘Mary walked two kilometers away.’ (Hohaus 2012: (4))

Hohaus considers semantic parallels between conceptual structures
of comparison and directed motion:
• Comparison involves two degrees along a scale associated with
  a gradable predicate.
• Directed motion involves a set of locations ordered along a one-
  dimensional path. Locations can be characterized as degrees.

2 Citations of the shape ‘YM 1987: dX’ indicate that the example comes from

page X in the dictionary portion of Young & Morgan 1987.

3 In Samoan comparatives (7-a), atu ‘forth, away’ composes with the adjective:
it is not a standard marker as the Navajo directional -lááh was.
Hohaus ultimately posits a set expressions pronounced *atu*, each with different (but related!) lexical entries.

- Locative *atu* takes a single degree (a position in space) as argument.
- Comparative *atu* takes a degree predicate (viz. (5-a)) as argument.

Hohaus’s analysis of Samoan *atu* seems very relevant to Navajo -lááh in locative vs. comparative constructions.

- In (7), the object of -lááh names a point in space, e.g. Tótá’ ‘Farmington.’ The motion described by the predicate extends beyond this point/degree.

The addition of data with Navajo -gi further demonstrates how locations and degrees may be handled by the same grammatical systems.

### 3 Manner uses

Both -gi and -lááh also occur in what I call manner constructions.

<table>
<thead>
<tr>
<th>Key questions:</th>
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<tr>
<td>How do notions like manner and quality relate to degrees?</td>
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<tr>
<td>Do such constructions still involve degrees and gradability?</td>
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<tr>
<td>Are entries like (5-a) sufficient?</td>
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In (9), the -gi phrase modifies a non-adjectival predicate to provide more information about the predicate’s manner or style of occurrence.

(9) a. Niye’ ni-gi ʼát’ée-go yálti.’
   2poss.son 2pro-at 3S.be-sub 3S.talk.IMPF
   ‘Your son talks just like you.’

b. Sitsílí shí-gi ʼát’ée-go nahalá.
   1poss.brother 1pro-at 3S.be-sub 3S.perform.ceremony
   ‘My little brother can perform ceremonies just like me.’

c. Bilágáana ʼasdzání bá da’ínííla’ígí naalʼeLI-gi
   white.person woman duck-at 3S.be-go naaghá.
   3S.be-sub 3S.walk.IMPF
   ‘Our white teacher just like a duck.’ (YM 1987: d369)

Such manner uses of -gi seem to fit well with Haspelmath and Buchholz’s (1998) observation that languages frequently use the same morpheme to mark equative (10-a) and ‘similative’ meanings (10-b).

- Other examples from Bulgarian (*kato*), Finnish (*kuin*), Norwegian (*som*) and Portuguese (*como*).

(10) a. Alice is as tall as I am. Equative
    b. Alice dance as I did. Similative

Rett (2013) takes up Haspelmath and Buchholz’s observation and considers the semantics of equative markers like English *as*.

- Equatives equate degrees, similatives equate manners.
- Manners can be treated as variables on par with degrees.

**Manner meanings** are also possible with -lááh phrases.

(11) a. “Ni-láah-go Bilágáana bizaad shíl bééhózin”
    2O-beyond-sub English 3O.1S.know
    shijíí-gi biniínaa bìki’e nìsištál.
   1O.4S.say-sub because 1S.become.angry.PERF
   More lit: I got angry because he said to me: “I know English better than you.”

   4It is not accurate to treat this sentence as involving quotation. For discussion, see Speas (2000).
b. Shicheii bil 'ana’ássih ni’tée’ 1poss.grandfather 3O.with 1S.shoot.IMPF PAST shi-lááh-góó ‘i’íísi’. 1O-beyond-LOC 3S.shoot.PERF ‘When I was shooting with my grandfather, he shot farther than I could.’ (YM 1987: d363)

c. Ni-lááh-góó shį́į́ ‘adideeshshah. 2O-beyond-LOC probably 1S.spit.FUT ‘I can spit farther than you can.’ (YM 1987: d26)

Initially, examples like (11-b) and (11-c) seem similar to the locative data seen in (7).

- Each of these examples involves motion (walking, flying, shooting, spitting) that goes beyond in some way.

However, (11-b) and (11-c) are different from the examples in (7).

- In (7), the object of -lááh named a point in space (degree) beyond which the motion traveled.
- The objects of -lááh in (11-b) and (11-c) cannot be paraphrased like this.
  - (11-b) ≠ ‘My grandfather shot beyond where I was.’
  - (11-c) ≠ ‘I spit beyond where you are.’

- Instead, the objects of -lááh in (11) resemble those of comparative constructions. The object of -lááh conceals the application of a predicate to the individual standard of comparison.
  - Sentence (11-b): ‘My grandfather shot beyond [how far I was able to shoot].’
  - Sentence (1-a): ‘Alice is tall beyond [how tall I am].’

However, it still stands that the sentences in (11) (just like those in (10)) do not contain adjectival expressions or predicates that we would typically think of as gradable.

- In (11), English translations contain comparative adjectival expressions like better and farther. The original Navajo sentences contain no such expressions.
- Is gradability induced (e.g. by -lááh) in sentences like (11)? Or is there always gradability ‘lurking’ in verbs’ meanings?
  - Possible scales: Quality or proficiency (11-a), distance of trajectory (11-b), (11-c).
  - What about pluractionality? Accuracy? Style?
  - Proposals above posit measurement operators of various kinds that introduce gradability to verb phrases that are not normally associated with degrees.

4 Comparing superlatives and comparatives

I now consider Navajo superlatives.

- Superlative meanings are expressing using a directional postposition: either -lááh ‘beyond, more’ (12-a) or -ghá ‘through’ (12-b).
- Postposition bears indefinite object marker ‘a-.
- Locative suffix -di or subordinator -go optionally marks postposition.
(12) a. Shí shiyo’ 'a-láah(-di) nizhóní.
   1pro 1poss.beads INDEF-beyond-LOC 3S.pretty
   ‘My beads are the prettiest.’

   b. Shí shiyo’ 'a-ghá(-di) nizhóní.
   1pro 1poss.beads INDEF-through-LOC 3S.pretty
   ‘My beads are the prettiest.’

   (YM 1987: d35)

   The structure 'a-láah is also found in attributive superlatives:

(13) Mary tsin 'a-láah-go 'áníhénééz-ígíí yaah
   M. tree INDEF-beyond-sub 3S.tall.sc=nom 3O.up
   haas’na’.
   3S.climb.perf
   ‘Mary climbed the tallest tree.’

Navajo superlative constructions are characterized by their use of a positional postposition — especially the postposition -lááh found in comparatives — and the indefinite object marker 'a.

- There is no other morphology in sentences like (12) or (13) that we could plausibly call a ‘superlative morpheme.’

The indefinite marker 'a- does not only occur in superlatives.

- Young and Morgan (1987: d67): The prefix 'a- is “translatable as ‘someone/something unspecified’”.

(14) a. 'ashą́
    INDEF.1S.eat.IMPF
    ‘I’m eating (something)’

   b. nil 'adoo’ol
    2O.with INDEF.float.FUT
    ‘Something will come floating with you,’ ‘You will come by boat.’

   Certain quantity superlative meanings can also be expressed in Navajo using 'a-lááh/ 'a-ghá.

   The pictorial context below targets a relative superlative:

Research question:
• How does an indefinite object marker + a comparative post-position come to express superlative meanings?

• Bobaljik (2012) discusses languages that express superlative meanings through comparison with a universal quantifier, but not an indefinite expression as in Navajo.

• Some discussion of this pattern in Gorshenin (2012: 78).

   – In addition to Navajo, Gorshenin cites Cambodian, Usan, and Nahuatl as languages that use this strategy.
In this context, the consultant (E. Perkins) provided the following sentence:

(15) ’Áko shí básáh likani ’a-láá-go yíyą́ą́.'
    thus 1pro cookie INDEF-beyond-SUB 3O.1S.eat.sub
    ’I ate the most cookies.’

The following pictorial context targets a proportional superlative:

In this context, the consultant instead volunteered the following sentence:

(16) K’asdą́ą́’ almost básáh likani ’ałtso yíyą́ą́’.
    all cookie all 3O.1S.eat.PERF
    ’I ate almost all of the cookies,’ ’I ate most of the cookies.’

Sentence (15) was not accepted in this latter context.

What is going on here? Some preliminary observations.

• In sentences that I have characterized as quantity superlatives, it does not seem like the structure ’a-lááh forms a constituent with the noun.

• Faltz (1995), Willie and Jelinek (2000): Navajo does not have quantificational determiners, but instead only has adverbial quantifiers.5

• Instead, the parse seems to be something more like I did cookie eating to the greatest extent, where ’a-lááh modifies the verb phrase in its entirety.

This paraphrase recalls the modification of non-gradable predicates by other -lááh phrases, e.g. (17) repeated in part from above.

(17) Ni-láah-go Bilagáana bizaad shil bééhózin.
    2O-beyond-SUB English 3O.1S.know
    ’I know English better than you (know English).’

In (17), -lááh could induce scalar interpretation of property know English.

• In (15), -lááh could be inducing a scalar interpretation of the property eat cookies, perhaps where points on the scale correspond to numbers of cookies (Schwarzschild 2006, Rett 2014).

In Navajo, there may be a deeper connection between relative readings of superlatives and modification at the level of the verb phrase (or higher).

• ...as we’d expect, viz. movement theories of relative readings.

5But see Grosu (2012) for arguments against this for ’ałtso ’all.’
5 Conclusions

We explored the distribution of expressions found in Navajo comparative and equative constructions, -lákáh and -gi.

- Both expressions have uses related to location or direction.
- Comparative marker -lákáh also found in superlatives.
- Considering the wider distribution of these expressions can shed light on the relationship between their use in degree expressions and elsewhere in the language.

References


