# Ndebele comparison constructions

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## 1   Introduction

In his seminal typology, Stassen (1985) proposed six major types of comparitives:

- Separative comparative (FROM-standard)

- Allative comparative (TO-standard)

- Locative comparative (ON-standard)

- Exceed comparative

- Conjoined comparative

- Particle Comparative (THAN standard)

Additionally, Bochnak (2013) identifies the cleft comparative construction for Luganda, alongside the exceed comparative. Ndebele, another Bantu language, part of the Nguni group located in Zone S of the Guthrie classification (Maho, 2009), has both the exceed and cleft comparison constructions that Luganda does, as well as having a particle comparative.

(1)  Ndebele comparison constructions:


    (a)  Exceed comparative: *ukudlula*

    (b)  Particle comparative: *kula-*

    (c)  Cleft comparison

The Ndebele exceed comparative is marked by the verb *ukudlula* , which can appear in main verb or subordinate position. The particle comparative is marked by the prefix *kula-* , which attaches to the NP standard of comparison. These two constructions are explicit comparisons, and are not context-sensitive, as opposed to the cleft comparison construction, in which the target of comparison is clefted to the front of the sentence, and there is no overt standard of comparison.

The goal of this paper is to provide data on each of the comparison constructions available in Ndebele, supporting the typological analysis of each construction. Using diagnostics for explicit vs implicit comparison from Kennedy (2007), I then show that exceed comparatives and particle comparatives in Ndebele are both explicit comparisons, while cleft comparisons are implicit.

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## 2 Comparison constructions

### 2.1 Exceed comparative

#### 2.1.1 Main verb exceed

Exceed comparatives involve a verb meaning 'to exceed/surpass', with the target of comparison asserted to exceed the standard with respect to some quality. Ndebele *ukudlula* was translated by the consultant as 'to pass', and clearly demonstrates the relevant properties of a main verb meaning 'to exceed':

(2) U-Thoko u-dlula    u-Sipho.
    1a-T      1a-exceed 1a-S

    'Thoko passes Sipho.'
    or 'Thoko is better than Sipho.'

In (2), *ukudlula* (conjugated for subject agreement) appears as a main verb, and can have the literal meaning that Thoko physically passes Sipho, alongside a comparative meaning in which Thoko is better than Sipho with respect to some unmentioned quality.

In comparative constructions, this comparative predicate is made explicit in subordinate form, usually as a noun in noun class (NC) 14 or 15: the former is generally used for abstract nouns, or 'substances' as the consultant described, while NC 15 is normally used for infinitives.

(3) U-Sipho u-dlula    u-Thoko ubu-de.
    1a-S      1a-exceed 1a-T      14-tall/long

    'Sipho is taller than Thoko.'
    (lit. 'Sipho exceeds Thoko in tallness.')

(4) Imbodlela idlula    imbiza  ukugcwala.
    iN-bodlela i-dlula   iN-biza uku-gcwala
    9-bottle    9-exceed 9-pot    15-full

    'The bottle is fuller than the pot.'

Based on (3) and (4), we can see that with the main verb exceed comparative, the target of comparison is the subject of the sentence, while the standard of comparison is the direct object of the verb. The comparative predicate appears as a secondary argument following the standard.

#### 2.1.2 Subordinate exceed

In subordinate exceed comparatives, the comparative predicate is expressed as the main verb, with *ukudlula* being expressed as a subordinate verb, in the infinitive NC 15.

(5) Isi-hlahla si-de.
    7-tree      7-tall

    'The tree is tall.'

(6) Isi-hlahla si-de uku-dlula u-Sipho.
    7-tree    7-tall 15-exceed 1a-S

    'The tree is taller than Sipho.'
    (lit. 'The tree is tall exceeding Sipho.')

As (5) shows, *side*, 'tall', can be the main predicate of a sentence, with no other arguments introduced – I stay uncommitted at the moment as to whether it is a predicative adjective or stative verb, though I favor the latter, which matches the consultant intuition that certain adjectives behave like verbs. In (6), *ukudlula* is introduced in subordinate form, taking the infinitive form and introducing the standard of comparison, Sipho.

## 2.2 Comparative particle

Comparative particle constructions are identifiable by a particle that accompanies the standard of comparison, e.g. English *than*. In Ndebele, this particle is realized by the prefix *kula-* , which attaches to the standard of comparison. It should be noted that Bowern and Lotridge (2002) write this particle as *\*ula*, which our consultant pointed out as being an ungrammatical typo.

(7) Isihlahla side  kuloSipho.
    Isi-hlahla si-de kula-u-Sipho
    7-tree    7-tall KULA-1a-S

    'The tree is taller than Sipho.'

In (7), we see a similar construction to the subordinate exceed comparisons, except that the comparative particle *kula-* introduces the standard of comparison, Sipho, rather than *ukudlula* .
    While *ukudlula* and *kula-* may look more or less functionally identical in subordinate position, *kula-* and its argument cannot function as a main predicate, with a subordinate comparative predicate:

(8) *Isihlahla kuloSipho    ubude.
    isi-hlahla kula-u-Sipho ubu-de
    7-tree     KULA-1a-S    14-tall

    'The tree is taller than Sipho.'

This implies that unlike *ukudlula* , *kula-* is not a verb, and that it is some other type of comparative particle.
    *kula-* can also be shown to be unrelated to case marking such as separatives, allatives, and locatives, which comprise other types comparative constructions in Stassen's typology. Consider the following data:

(9) *USipho ugijima  kulesihlahla.
    u-Sipho  u-gijima kula-isi-hlahla
    1a-S     1a-run   KULA-7-tree

    'Sipho runs to/from/on the tree.'

(10)   (a) USipho uyehlukanisa                  irice      **le**beans.
            u-Sipho u-ya-i-ahlukan-is-a           iN-rice la-iN-beans
            1a-S     1a-PRES.CONT-9-divide-CAUSE-FV 9-rice   and-9-beans

            'Sipho is separating the rice from the beans.'

      (b) *USipho uyehlukanisa                 irice      **kule**beans.
            u-Sipho u-ya-i-ahlukan-is-a           iN-rice kula-iN-beans
            1a-S     1a-PRES.CONT-9-divide-CAUSE-FV 9-rice   KULA-9-beans

            'Sipho is separating the rice from the beans.'

(9) shows that *kula-* cannot have an allative, separative, or locative meaning equivalent to English prepositions *to*, *from*, and *on* implying that it is not case marking on the standard of comparison – locative marking is actually ordinarily expressed by the circumfix *e- -ini* (Bowern and Lotridge, 2002).

    Additionally, (10) shows that *kula-* cannot have any separative meaning in the context where Sipho is separating rice from beans. Instead, the commitative *la-* (Bowern and Lotridge, 2002) is used, which I gloss here as 'and' for its conjunctive properties (Vardomskaya, 2013).

    These tests provide good evidence that comparisons involving *kula-* are not exceed type comparatives, nor is *kula-* any type of case marking. Rather, it appears to be a true comparative particle. Note, though, that unlike English constructions involving *than*, the comparative predicates of *kula-* constructions do not have overt degree morphology comparable to English *-er*; the comparative predicate remains unmarked for degree and identical to non-comparative usages.

    Bobaljik (2012) assumes that superlatives are morphosyntactically built on comparatives. If this is the case, then an apparent lack of a comparative degree head in Ndebele might suggest that there is no superlative form of comparative predicates as well. This seems, at first glance, to be the case:

(11)   (a) main verb exceed:                           (b) subordinate exceed:

          U-Sipho u-dlula    b-onke ubu-de.               U-Sipho mu-de uku-dlula b-onke.
          1a-S     1a-exceed 2-all    15-tall             1a-S     1a-tall 15-exceed 2-all

          'Sipho is the tallest.'                     'Sipho is the tallest.'
          lit. 'Sipho exceeds everyone in tallness.'     lit. 'Sipho is tall exceeding everyone.'

(12) comparative particle:

    U-Sipho mu-de kula-bo-b-onke.
    1a-S     1a-tall  than-REDUP-2-all

    'Sipho is the tallest.'
    lit. 'Sipho is taller than everyone.'

(13) cleft construction:

    USipho nguye           omude     wangkhona.
    u-Sipho ng-u-ye       a-umu-de   u-aN-kh-ona
    1a-S     COP-1-3SG.ANIM  ATTR-1-tall 1a-aN-17-PRO

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'Sipho is the tallest.'
lit. 'Sipho, it is him that is the tall one.'

As (11 - 13) demonstrate, superlatives in Ndebele are expressed by quantifying over the standard of comparison or by using the cleft construction (§2.3). The comparative predicate remains identical to the positive form and comparative forms.

While *kula-* is not used in allative, separative or locative constructions, it is interesting to note that it is homophonous with the prefix used in existential constructions, which Bowern and Lotridge (2002) decompose into *ku-*, the expletive subject marker related to NC 17, and *la-*, 'exist'.

(14)  (a)  Kulombeda.
           ku-la-um-beda
           17-exist-3-bed

           'There is a bed.'

      (b)  Kulenja.
           ku-la-iN-ja
           17-exist-9-dog

           'There is a dog.'

These existential constructions can be negated by prefixing the negative prefix *a-* to the existential construction:

(15)  (a)  Akulombeda.
           a-ku-la-um-beda
           NEG-17-exist-3-bed

           'There isn't a bed.'

      (b)  Akulenja.
           a-ku-la-iN-ja
           NEG-17-exist-9-dog

           'There isn't a dog.'

If the *kula-* in comparison constructions were existentials, we might expect that they were implicit comparisons, with the existential clause manipulating the evaluative context for the comparative predicate. This, however, is not the case, as is shown below in §3. Moreover, we might also expect that negated existentials should be able to appear in comparison constructions, though this is not the case:

(16)  *Isihlahla side  akuloSipho.
       isi-hlahla si-de  a-kula-u-Sipho
       7-tree     7-tall NEG-KULA-1a-S

       'The tree is not taller than Sipho.'

(17)  *UThoko mude  akulamuntu.
       u-Thoko  mu-de  a-kula-mu-ntu
       1a-T     1a-tall NEG-KULA-1-person

       'Thoko is taller than nobody.'

Bowern and Lotridge (2002) write that *akula muntu* is a way of quantifying the negative existential over the noun *muntu* to mean 'nobody/no person'. If this is the case, we might expect (17) to be a possible way of expressing that Thoko is taller than nobody if *kula-* is an (negatable) existential construction. The fact that it is ungrammatical strongly suggests that the *kula-* in comparative constructions is a different one than the one used in existential constructions, which is also supported by Galen Sibanda's intuitions (p.c.); whether or not they are historically related in any way I leave up to further investigation.

## 2.3 Cleft comparison

In clefted comparisons, the target of comparison appears as a clefted subjected, with the standard of comparison left implicit.

(18) USipho nguye omude wangkhona.
u-Sipho ng-u-ye a-umu-de u-aN-kh-ona
1a-S COP-1-3SG.ANIM ATTR-1-tall 1a-aN-17-PRO

'Sipho is the tallest.'
lit. 'Sipho, it is him that is the tall one.'

In (18), we can see that target of comparison, Sipho, is clefted to the front of the sentence. Though this is where targets normally appear as subjects anyway, we can tell that the target in (18) is clefted by the appearance of *nguye*, which is used in other constructions where animate subjects are clefted (Pavlou, 2013).

It should be noted that in cleft comparisons, the target of comparison is also considered to positively have the property of the comparative predicate: in other words, (18) entails that Sipho is tall. This is different than in exceed comparisons and those involving the comparative particle, where while Sipho would have a greater degree of tallness than the standard of comparison, it is not entailed that he is tall.

These facts together strongly suggest that exceed comparatives and *kula-* comparatives are explicit comparisons, while cleft constructions are implicit ones.

# 3 Explicit vs implicit comparison

Kennedy (2007) identifies two potential parameters of comparison:

- **Explicit comparison**: establish an ordering between objects $x$ and $y$ with respect to gradable property $g$ using a morphosyntactic form whose conventional meaning has the consequence that the degree to which $x$ is $g$ exceeds the degree to which $y$ is $g$

- **Implicit comparison**: establish an ordering between objects $x$ and $y$ with respect to gradable property $g$ using the positive form by manipulating the context in such a way that the positive form is true of $x$ and false of $y$

As mentioned previously, it seems that Ndebele exceed comparatives and *kula-* comparatives are both explicit comparisons, while the cleft construction is an implicit comparison. This matches up with what Bochnak (2013) finds for Luganda, where exceed comparatives are explicit and cleft constructions are implicit – Luganda, however, lacks a comparative particle.

The diagnostics that both Kennedy and Bochnak use to determine explicit vs implicit comparison involve minimum/maximum standard properties, crisp judgements and (differential) measure phrases. Applying these diagnostics to the Ndebele comparison constructions confirms that exceed and *kula-* comparatives are explicit and cleft comparisons are implicit.

## 3.1 Minimum/maximum standard properties

Minimum/maximum standard properties are ones such as open/close, wet/dry, empty/full, etc., where the standard of comparison is not context-sensitive. Instead the properties are evaluated in relation to some minimum or maximum point on a scale. The lack of context-sensitivity means that while explicit comparisons should be possible with these properties, implicit comparisons should be odd or ungrammatical, as there is no way for the context of evaluation to be manipulated.

Consider the following minimum standard properties:

(19)  (a)  main verb exceed:

    Um-nyango u-dlula  i-windi    uku-vuleka.
    3-door       3-exceed 5-window INF-be.open

    'The door is more open than the window.'

    (b)  subordinate exceed:

    Um-nyango u-vuleke  uku-dlula  i-windi.
    3-door       3-be.open INF-exceed 5-window

    'The door is more open than the window.'

(20)  comparative particle:

    Umnyango uvuleke   kulewindi.
    um-nyango u-vuleke  kula-i-windi
    3-door       3-be.open than-5-window

    'The door is more open than the window.'

(21)  cleft comparison:

    ??Umnyango lowu   yiwo         ovuleke       wangkhona.
    um-nyango  la-owu yi-w-o     a-u-vuleke    w-aN-kh-ona
    3-door       DEM-3 CLEFT-3-CLEFT ATTR-3-be.open 3-aN-17-PRO

    Intended: 'This door is more open (than other doors in context).'
    lit. 'It is this door that is the one that is open.'

And maximum standard properties:

(22)  (a)  main verb exceed:

    Imbodlela   idlula    imbiza ukugcwala.
    iN-mbodlela i-dlula    iN-biza uku-gcwala
    9-bottle      9-exceed 9-pot   INF-be.full

    'The bottle is more full than the pot.'

    (b)  subordinate exceed:

Imbodlela    igcwala ukudlula   imbiza.
iN-mbodlela i-gcwala uku-dlula   iN-biza
9-bottle     9-be.full INF-exceed 9-pot

'The bottle is more full than the pot.'

(23) comparative particle:

Imbodlela  igcwala  kulembiza.
iN-bodlela i-gcwala kula-iN-biza
9-bottle     9-be.full than-9-pot

'The bottle is more full than the pot.'

(24) cleft:

??Imbodlela leyo    yiyo         egcwala      yangkhona.
iN-bodlela  la-iyo  yi-y-o       a-i-gcwala   y-aN-kh-ona
9-bottle      DEM-9 CLEFT-9-CLEFT ATTR-9-be.full 9-aN-17-PRO

Intended: 'This bottle is fuller (than other bottles in context).'
lit. 'It is this bottle that is the one that is full.'

As the data show, cleft constructions are questionable at best, if not ungrammatical with minimum and maximum standard properties, while exceed and *kula-* comparatives are perfectly acceptable.

## 3.2 Crisp judgements

Crisp judgements are based on the assumption that positive forms are vague and give rise to the Sorites Paradox. Because implicit comparison manipulates the context such that the assertion *x is g compared to y* includes the commitment that *x* is *g* but *y* is not, borderline cases where *x* and *y* are barely different should be odd/ungrammatical in implicit comparison. Crisp judgements, of course, should still be acceptable with explicit comparisons.

Consider a context in which this book is 600 pages long and that book is 200 pages long:

(25) (a) main verb exceed:

Ibhuku  leli     lidlula   (ibhuku) leliyana    ubude.
i-bhuku la-ili   li-dlula  (i-bhuku) la-ili-ana  ubu-de
5-book   DEM-5 5-exceed 5-book    DEM-5-DIST 14-long

'This book is longer than that book.'

(b) subordinate exceed:

Ibhuku  leli     lide      ukudlula (ibhuku) leliyana.
i-bhuku la-ili   li-de     uku-dlula (i-bhuku) la-ili-ana
5-book   DEM-5 5-long 15-exceed 5-book    DEM-5-DIST

'This book is longer than that book.'

(26) comparative particle:

Ibhuku leli lide kulebhuku leliyana.
i-bhuku la-ili li-de kula-i-bhuku la-ili-ana
5-book DEM-5 5-long than-5-book DEM-5-DIST

'This book is longer than that book.

(27) cleft:

Ibhuku yilo elide langkhona.
i-bhuku yi-l-o a-ili-de l-aN-kh-ona
5-book CLEFT-5-CLEFT ATTR-5-long 5-aN-17-PRO

'This book is longer (than other books in context).'
lit. 'It is this book that is the long one.'

Because the difference between a 600-page book and a 200-page one is not a borderline case, both explicit and implicit comparisons are acceptable, as can be seen in (25 - 27).

Compare that to a context in which this book is 600 pages long and that book is 597 pages long:

(28) (a) main verb exceed:

Ibhuku leli lidlula (ibhuku) leliyana ubude.
i-bhuku la-ili li-dlula (i-bhuku) la-ili-ana ubu-de
5-book DEM-5 5-exceed 5-book DEM-5-DIST 14-long

'This book is longer than that book.'

(b) subordinate exceed:

Ibhuku leli lide ukudlula (ibhuku) leliyana.
i-bhuku la-ili li-de uku-dlula (i-bhuku) la-ili-ana
5-book DEM-5 5-long INF-exceed 5-book DEM-5-DIST

'This book is longer than that book.'

(29) comparative particle:

Ibhuku leli lide kulebhuku leliyana.
i-bhuku la-ili li-de kula-i-bhuku la-ili-ana
5-book DEM-5 5-long than-5-book DEM-5-DIST

'This book is longer than that book.

(30) cleft:

??Ibhuku yilo elide langkhona.
i-bhuku yi-l-o a-ili-de l-aN-kh-ona
5-book CLEFT-5-CLEFT ATTR-5-long 5-aN-17-PRO

'This book is longer (than other books in context).'
lit. 'It is this book that is the long one.'

As predicted by the hypothesis that cleft constructions are implicit, the borderline context of the 600-page and 597-page book makes the cleft comparison unacceptable.

### 3.3 (Differential) Measure phrases

Measure phrases make the degree and standard of comparison explicit, and as such makes it impossible for the standard to be manipulated by context. As such, while implicit comparisons should be impossible with differential measure phrases, explicit comparisons should be acceptable.

Consider the following data:

(31) (a) main verb exceed:

USipho udlula uThoko ubude *(nge)10cm.
u-Sipho u-dlula u-Thoko ubu-de nge-10-cm
1a-S 1a-exceed 1a-T 14-tall by-ten-centimeter

'Sipho is 10cm taller than Thoko.'
lit. 'Sipho exceeds Thoko in tallness *(by) 10cm.'

(b) subordinate exceed:

USipho mude ukudlula uThoko *(nge)10cm.
u-Sipho mu-de uku-dlula u-Thoko nge-10-cm
1a-S 1a-tall INF-exceed 1a-T by-ten-centimeter

'Sipho is 10cm taller than Thoko.'
lit. 'Sipho is tall exceeding Thoko *(by) 10cm.'

(32) comparative particle:

USipho mude kuloThoko *(nge)10cm.
u-Sipho mu-de kula-u-Thoko nge-10-cm
1a-S 1a-tall than-1a-T by-ten-centimeter

'Sipho is 10cm taller than Thoko.'

(33) cleft:

*USipho nguye omude (nge)10cm wangkhona.
u-Sipho ng-u-ye a-umu-de nge-10-cm w-aN-kh-ona
1a-S CLEFT-1-3SG.ANIM ATTR-1a-tall by-ten-centimeter 1a-aN-17-PRO

'Sipho is 10cm taller (than the other people in the context).'

In (31 - 32), the differential measure phrase is expressed by the prefix *nge-* – which I suspect is underlyingly *nga-i*, with the the the *i-* realizing the noun class for numerals (Adam Singerman, p.c.); though I leave this question open-ended for now – in what appears to be an adjunct.
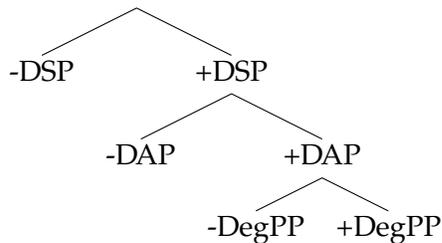
Once again, because the standard of comparison is made explicit in (33), context-manipulation is impossible, resulting in ungrammaticality. Thus using the diagnostics for explicit vs implicit comparisons used by Kennedy (2007), it is clear that Ndebele exceed and *kula-* comparatives are both explicit comparisons, while cleft comparisons are implicit; this conclusion is happily in line with the Luganda data from Bochnak (2013).

(Beck et al., 2009) propose three parameters for the distribution of comparison propertiers cross-linguistically:

- **Degree Semantics Parameter (±DSP)**: A language {does/does not} have gradable predicates (type $\langle d, \langle e, t \rangle \rangle$ and related, i.e. lexical items that introduce degree arguments

- **Degree Abstractation Parameter (±DAP)**: A language {does/does not} have binding of degree variables in the syntax

- **Degree Phrase Parameter (±DegPP)**: The degree argument position of a gradable predicate {may/may not} be overtly filled

Furthermore, these parameters are hierarchical, and dependent upon each other:

(34)

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              -DSP        +DSP
                         /      \
                    -DAP        +DAP
                              /       \
                         -DegPP    +DegPP
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In other words, a language must be +DSP before it can be ±DAP, and +DAP before it can be ±DegPP. The fact that Ndebele allows differential measures, but only as adjuncts, rather than as a degree argument of the gradable predicate, means that Ndebele is -DegPP. This in turn entails that it must also be +DAP and +DSP.

The questionnaire used by (Beck et al., 2009) covered many types of comparison constructions within their representative sample of languages. While this questionnaire was borrowed and adapted for the data in this paper, we were not able to cover all of the questions. Moreover, our methodology differed slightly from Beck et al's: rather than working with a native speaker to construct each of the possible comparison constructions to then administer to other native speakers, we asked our consultant for direct translations of each questionnaire prompt, in order to get a preliminary sketch of what Ndebele comparison constructions look like. That being said, a more thorough investigation of the questionnaire used in the Beck et al study would help not only provide more comprehensive data on Ndebele, but also test the parametric hypotheses predicted by Beck et al.

# 4   Conclusion

This paper provides a short description of Ndebele comparison constructions, of which there are three options: the exceed comparative, the comparative particle, and the cleft comparison. In the elicitation sessions with the consultant, it seemed that the subordinate exceed comparative was most common, followed by the comparative particle. I suspect that their similar syntactic structures are behind these preferences, though more quantitative work will have to be done to see if this claim and hypothesis hold.

   The cleft comparison was originally given for superlative contexts, and it is unclear whether or not this is the preferred construction for expressing superlative meaning, as opposed to quantifying over the standard of comparison. The main verb exceed comparative was in fact never freely given prior to direct elicitation of such a construction. This suggests that it is a dispreferred comparison construction, possibly due to the (plausibly) more natural way of expressing property concepts as main predicates rather than as 'substantive', NC 14/15, arguments of the main verb *uku*dlula .

   Using the diagnostics from Kennedy (2007), we can confidently conclude that both exceed and *kula-* comparatives are explicit comparisons, while cleft comparisons are implicit. Furthermore, the ability to express differential measure phrases (only) as adjuncts implies that Ndebele is a -DegPP language within Beck et al. (2009)'s degree parameters. This in turn entails within their analysis that Ndebele must also be +DSP and +DAP.

   These findings align neatly with the analysis of Luganda comparatives from Bochnak (2013), which is perhaps to be expected as both Luganda and Ndebele are Bantu languages, albeit from different zones. While this preliminary sketch of Ndebele comparison constructions is informative, there is still much work to be done and many more questions to be investigated in future research.

# 5   Other facts and questions

In this section, I briefly provide a few other facts and questions around the issue of comparison constructions in Ndebele.

## 5.1   Clausal vs phrasal comparatives

The standard of comparison in comparative constructions has been assumed to be either clausal – in which the standard is an entire clause that is reduced in the surface form – or phrasal, in which the the standard is a phrasal constituent smaller than a CP. The current data used in this paper suggest that Ndebele comparatives are phrasal, though I turn to Aparicio Terrasa (2013) for a more detailed account of this.

## 5.2   Equative particle

Ndebele makes use of the particle *njenga-* to express equatives:

(35)  USipho  unjengoThoko.
      u-Sipho u-**njenga**-u-Thoko
      1a-S      1a-like-1a-T

'Sipho is like Thoko (in some salient way).'

(36) USipho mude njengoThoko.
u-Sipho mu-de **njenga**-u-Thoko
1a-S    1a-tall like-1a-T

'Sipho is as tall as Thoko.'

(37) USipho ugijime    masinyane njengoThoko.
u-Sipho u-gijim-e    masinyane **njenga**-u-Thoko
1a-S    1a-run-R.PST fast      like-1a-T

'Sipho runs as fast as Thoko.'

It is interesting to note that in (35), *njenga-* takes subject agreement, which is what we see for verbs – recall the main verb exceed constructions. However, in (36) and (37), *njenga-* seems to behave more like *kula-* in terms of not taking any kind of infinitival NC 15 prefix. This is unexpected if *njenga-* is actually a verb, strongly implying that it is a particle similar to *kula-* . This leaves the issue of subject agreement in (35) unresolved for now.

### 5.3  Negation

Negation of positive predicates, at least for people, is expressed using *kakho*, which Pelling (1971) lists as meaning 'nobody'; it can presumably be decomposed (historically?) into the negative prefix *ka-* and *kho-* from NC 17, which we have seen before in expletive subjects.

(38) U-Sipho kakho    mu-de.
1a-S      nobody 1a-tall

'Sipho is not tall.'

This negation strategy is also used for the subordinate exceed comparative:

(39) U-Sipho kakho    mu-de uku-dlula u-Thoko.
1a-S      nobody 1a-tall 15-exceed 1a-T

'Sipho is not taller than Thoko.'

However, for main verb exceed comparatives, as well as equatives, the comparative predicate itself was negated:

(40) U-Sipho ka-dlul-i       u-Thoko ubu-de.
1a-S    NEG-exceed-NEG 1a-T    14-tall

'Sipho is not taller than Thoko.'

(41) USipho akamude   njengoThoko.
U-Sipho aka-mu-de njenga-u-Thoko.
1a-S    NEG-1a-tall like-1a-T

'Sipho is not as tall as Thoko.'

The examples here represent very sparse data, which we did not elaborate on. It could be the case that negation through the use of *kakho* and direct negation on the comparative predicate are possible for all constructions, but this will have to be further tested. In the meantime, while it is predictable that direct negation is possible, it is interesting to note that the usage of *kakho* is also possible.

### 5.4  Too/enough

'Too' and 'enough' constructions are expressed via sentence conjunction in Ndebele:

(42)  USipho mude  kakhulu, kakwani     emoteni.
      u-Sipho mu-de kakhulu  ka-kwan-i    e-iN-mota-ini
      1a-S     1a-tall very     NEG-fit-NEG  LOC-9-car-LOC

'Sipho is too tall to fit in the car.'
lit. 'Sipho is very tall, (he) doesn't fit in the car.'

(43)  USipho mude, ufanele          ukuba  seqembini.
      u-Sipho mu-de, u-fanel-e         uku-ba se-i-qemb-ini
      1a-S     1a-tall, 1a-be.suited-R.PST 15-be   LOC-5-team-LOC

'Sipho is tall enough to be on the team.'
lit. 'Sipho is tall, (he) is suited to be on the team.'

Note that there seems to be no subject agreement on *kwan*, 'fit', in (42); this may have just been an error on a single data point, however, and I dismiss it for now.

### 5.5  Reduplication in superlative construction

Recall the previous example of a superlative construction:

(44)  U-Sipho mu-de kula-bo-b-onke.
      1a-S      1a-tall than-REDUP-2-all

'Sipho is the tallest.'
lit. 'Sipho is taller than everyone.'

I have marked what appears to be a reduplicated syllable within the standard of comparison. Typically, *bonke* means 'all (things of NC 2)', and we would thus expect the form to be *\*kulabonke*, but the grammatical form is instead *kulabobonke*, with an extra *bo-* appearing between *kula-* and *bonke*.

The position of this reduplicated form is made apparent in the following example:

(45)  USipho utshayela imota   egijima     masinyane kulazozonke.
      u-Sipho u-tshayela in-mota a-i-gijima    masinyane kula-zo-z-onke
      1a-S     1a-drive   9-car   ATTR-9-run fast        than-REDUP-10-all

'Sipho drives the fastest car.'
lit. 'Sipho drives the car tht runs faster than all other (cars).'

In (45), *zonke* quantifies over NC 10, which is typically marked on nouns by the prefix *iziN-*. Importantly, all the (augment) vowels in this noun class are /i/, which means that we cannot account for the vowel /o/ in the reduplicated portion *zo-* via any phonological vowel coalescence rules – recall that Ndebele /a+u/ → /o/ and /a+i/ → /e/. As a result, we must assume that the /o/ in *zo-* comes from copying the onset and nucleus of *zonke*.

This reduplication only occurs in superlative constructions involving *kula-* , and did not turn up even in subordinate exceed comparatives, which more or less have identical syntactic structure to *kula-* comparatives, at least superficially. I suspect this may then have something to do with the fact that *kula-* is a prefix while subordinate *ukudlula* is a separate word, but this will take more investigation.

Additionally, what the morphosyntactic or semantic role of this reduplicated morpheme is remains entirely opaque at the moment, though our consultant had strong intuitions on its obligatory presence in the above constructions. I leave it to future work to clarify this mysterious matter.

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