Exceed-Comparative Languages and the Degree Abstraction Parameter

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CLS54, 04/26/2018

The Question

Beck et al. (2009) propose that variation in comparison crosslinguistically is due to settings of grammatical parameters, such as the Degree Abstraction Parameter. We also know that differences in the denotations of lexical items are responsible for some semantic variation. One question we can ask is what variation in comparatives is due solely to parameter settings and what is due to lexical variation?

1. Comparison in Tswefap

- Tswefap (Bamileke Narrow Grassfields; Cameroon) utilizes an "exceed" type comparative in Stassen's (1985) typology
- The gradable predicates used in comparatives are verbs
- Comparatives are formed via one of many strategies involving a serial verb construction with the verb *tchege* 'pass'

(1) Nkwehnwoh a seh n-tchege Chimi
K. FACT be.tall N-pass C.
'Kuamo is taller than Chimi.'

2. The Degree Abstration Parameter

- Beck et al. (2009) argue that languages differ in whether they make use of degrees (Degree Semantics Parameter), with some languages lacking gradable <d,<e,t>> predicates
- One observation about degrees is that they are semantically much like individuals (objects of type e)
  - There are expressions that refer to degrees (*4 feet*) just like there are expressions that refer to individuals (*Mary*)
  - There are generalized quantifiers over degrees (<<d,t>,t>) just like there are generalized quantifiers over individuals (<<e,t>,t>)
  - Generalized degree quantifiers can QR to create abstractions over variables of type d, just like generalized quantifiers over individuals can QR to abstract over type e variables
- Beck et al. (2009) propose that languages can also differ in whether they allow abstraction over degrees (Degree Abstraction Parameter)
- From these two parameters alone, we can expect to find three types of languages
  - No degrees (-DSP): Motu (Autronesian; Papua New Guinea) entirely lacks expressions that reference degrees
  - Degrees, but no abstraction (+DSP,-DAP): Mooré (Gur; Burkina Faso) has expressions that refer to degrees but does not allow constructions that require binding of degree variables
  - Degrees and degree abstraction (+DSP,+DAP): English has expressions that refer to degrees and constructions that involve degree variable binding
- Beck et al. (2009) discuss 2 constructions that only languages with degrees may have, and they identify an additional 5 constructions that only languages that allow abstraction over degrees may have
- On the basis of these diagnostics I argue that Tswefap has a positive setting for both parameters

3. Evidence for Degrees and Degree Abstraction in Tswefap

- Tswefap allows all the constructions that Beck et al. (2009) take to be evidence for degrees and degree abstraction

Difference Comparatives

- Differential measure phrases can appear in comparatives

(2) Chimi a seh **pu ta' tswe** n-tchege
C. FACT be.tall with one head N-pass
Nkwehnwoh
K.
'Chimi is one head taller than Kuamo.'

Comparisons with a Degree

- Type d expressions can be the standard of comparison

(3) Chimi a seh n-tchege ta' meyteh
C. FACT be.tall N-pass one meter
'Chimi is taller than one meter.'

Direct Measure Phrases

- Direct measure phrases can appear with gradable predicates without a PP

(4) Chimi a tsey kilo ghap
C. FACT be.heavy kilo 10
'Chimi weighs 10 kilos.'
(*Lit.* 'Chimi is 10 kilos heavy.')

Degree Questions

- Questions involving a bound degree variable are possible

(5) Chimi a seh ndohk pa'lieh
C. FACT be.tall QUANT how
'How tall is Chimi?'

Subcomparatives

- Subcomparatives, where the standard of comparison involves a second gradable predicate, are possible

(6) Chimi a seh n-tchege pa' nkhe Nkwehnwoh
C. FACT be.tall N-pass like rope K.
ne seh a
INF be.tall A
'Chimi is taller than Kuamo's rope is long.'

Negative Island Effects

- Negation in the standard of comparison is unacceptable

(7) * Chimi a yu ta' nwa'nye me yeh teuk
C. FACT buy one book ME it expensive
n-tchege yoh yi sop mi nteh yu a
N-pass DEM REL no person NEG buy REL
Intended: 'Chimi bought a more expensive book than the one no one bought.'

Two Sources of Semantic Variation

- Parameters: Tswefap is +DAP, accounting for variation between it and -DAP exceed-type languages
- The Lexicon: Tswefap and Yoruba differ with respect to scope ambiguities due to lexical variation

4. Scope Ambiguities in Tswefap and Yoruba

- In Tswefap we find evidence that degree phrases behave like quantifiers in showing scope ambiguities

(8) yi me ntchohk nge pa' yoh loh kwa'
it.is.required that building DEM take exactly
sehntimeyteh yeh pege seh n-tchege pa' yi
centimeter YEH two be.tall N-exceed like 3SG
ne mbi ndeh le
INF be now LE
'It is required that the building be exactly 2cm taller than it is now.'
You are in a contest where you have to build a model building. Your building is 2.98m tall.
✓ Context 1: ∀w > max
The rules state the building must be 3m tall, no more, no less.
?✓Context 2: max > ∀w
The rules state the building must be at least 3m tall, but can be more.

- Beck et al. (2009) demonstrate that Yoruba uses degrees
- Howell (2013) argues that Yoruba allows degree abstraction in degree questions and subcomparatives and shows negative island effects
- However, Yoruba does not show scope ambiguities

(9) ìwé náà gbọdọ̀ gùn ju ìyẹn lọ pèlú
book the has.to is.long exceed that.one go with
ojú-ewé márùn gérégé
page five exactly
'The book has to be exactly 5 pages longer than that one.' (Beck et al., 2009, Appendix 2)
Your paper is 10 pages long.
✓ Context 1: ∀w > max
In order to meet the class requirements it must be 15 pages long, no more, no less.
Context 2: max > ∀w
In order to meet the class requirements it must be 15 pages long, but can be more.

5. Lexical Variation in Exceed-Comparative Languages

- Howell (2013) argues that the lack of scope ambiguities in Yoruba is not due to a lack of degree abstraction
- Howell hypothesizes that *gerege* 'exactly' is not a degree operator, but rather a sentential operator, and notes that Yoruba otherwise lacks modified numeral measure phrases
  - Without a true degree operator like *exactly*, *ojú-ewé márùn* 'five pages' will literally mean 'at least five pages'
  - This will derive an 'at least' reading for both the wide and narrow scope of the degree quantifier
  - The addition of the sentential operator *gerege* would then rule out all stronger alternatives, yielding only the 'exactly' reading
- The prediction of Howell's account is that if a language with comparatives like Yoruba has modified numeral measure phrases, it may display scope ambiguities
- In Tswefap, we do find modified numeral measure phrases, and Tswefap does show scope ambiguities
- Therefore, Tswefap lends support to Howell's hypothesis that the presence/absence of scope ambiguities in languages with other evidence for degree abstraction correlates with the presence/absence of modified numeral measure phrases

Conclusions

- Tswefap shows clear evidence for degree abstraction based on all of the criteria proposed by Beck et al. (2009)
- Some variation among exceed-type languages is due to the fact that they can exhibit either setting for the DAP
- The presence of scope ambiguities in Tswefap supports Howell's (2013) claim that a lack of modified numeral measure phrases in Yoruba leads to a lack of ambiguity
- Some variation among exceed-comparative languages is due to differences in lexical items rather than grammatical parameter settings

References

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I would like to thank my consultant Guy Tchatchouang for his collaboration. I am also very grateful to Erik Maier for his assistance in eliciting data and for his involvement in early stages of the project. Additionally, I thank Amy Rose Deal for her feedback and Larry Hyman, Line Mikkelsen, and the UC Berkeley Department of Linguistics for their financial support of the Tswefap Documentation Project. All errors are mine alone.

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