

Degree Semantics for an *exceed*-type Language

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1 English-like Degree Semantics

The ontology of the standard degree semantics framework (von Stechow, 1984 and Beck, 2007) is empirically decisively supported by measure phrases, like *1.81* in (1), which strongly suggest the introduction of degrees as a basic type (claim 1), called d , in the semantic interpretation. Data like (1) additionally support the relational-type lexicon entry for gradable adjectives as in (2) (claim 2).

(1) *Isaac is 1.81 tall*

LF: $\text{Isaac}_e \text{ is } 1.81_d \text{ tall}_{d(e,t)}$

Interpretation: $\text{Height}(\text{Isaac}) \geq 1.81$

(2) $\| \text{tall} \| = \lambda d. \lambda x. x \text{ is tall to degree } d \text{ (on the vertical spatial distances scale)}$

Subcomparatives, as in (3), count as a transparent case of comparison between degrees. Intuitively, the degree d to which the table is high is compared to the degree d' to which the door is wide. This data point lends empirical support to a lexicon entry for the comparative morpheme as the one in (4) (claim 3), which operates the comparison between degrees. (3) is further taken to empirically support the need for predicate abstraction over a degree variable on LF in order to derive the correct interpretation, since the matrix clause and the *than*-clause have to provide sets of degrees on which the comparative morpheme operates (claim 4).

(3) *The table is higher than the door is wide*

Interpretation: $\max(\lambda d. \text{the table is } d\text{-high}) > \max(\lambda d'. \text{the door is } d'\text{-wide})$

(4) $\| \text{-er} \| = \lambda D_1. \lambda D_2. \max(D_2) > \max(D_1)$

2 Methodology used

These data points, i.e. measure phrases and subcomparatives, constitute therefore the basic empirical tests that support the standard degree semantics as developed for English. It is suggested to be methodologically advisable in order to develop a compositional semantics for the comparative constructions of another language to

start by looking at structurally close equivalents to these data points in the language under study. More precisely, we argue that the best place to find empirical support or falsification for claim 1 to 4 is by looking at measure phrases and subcomparatives in the language under study.

3 What about Yorùbá?

We apply this methodology to Yorùbá (Kwa, Nigeria). It is considered (Stassen, 1985) to be an *exceed*-type language. In this type of languages the standard of comparison, *ú* in (5), is encoded as the direct object of a predicate meaning *exceed*, *jù* in (5). In Yorùbá the *exceed* predicate combines with the gradable predicate, *ga* in (5), in a serial verb construction. It is therefore interesting to investigate whether a language which has a quite different surface structure to express comparison from the point of view of English can nevertheless be applied an English-like degree semantics.

- (5) *Kathy ga jù ú lọ*
 be.tall exceed 3sg SM
 ‘Kathy is taller than him.’

As shown in (6), Yorùbá cannot combine a gradable predicate *ga* with a measure phrase *mítà àádórin* without the support of further linguistic material. Nevertheless, (6) supports empirically the introduction of *d* as a basic semantic type (claim 1), since *mítà àádórin* has to be accommodated in some way in the semantic calculation. This claim is further empirically supported by differential constructions as in (7). However, (6) cannot directly be used to argue for a relational-type lexicon entry for gradable predicates (claim 2). Such a lexicon entry (equivalent to (2)) would force us to assume that *ní iwọ̀n* is semantically empty in (6).

- (6) *Naomi ga *(ní iwọ̀n) mítà àádórin*
 be.tall (in measure) meter 70
 ‘Naomi is 1.70 tall.’
- (7) *Naomi fi ẹ̀sẹ̀bàtà kan ga jù Sandra lọ*
 use/with foot one be.tall exceed SM
 ‘Naomi is one foot taller than Sandra.’

Beck et al. (2004) express cross-linguistic variations in the expression of the comparative construction through the DAP parameter. A language is positively set for DAP if it allows the building on LF of a set of degrees via predicate abstraction over a degree variable. The availability of genuine subcomparatives is used as empirical test for the setting of the DAP. A language A can have genuine subcomparatives only if it is positively set for the DAP. The data point (8) indicates that subcomparatives are available in Yorùbá, which should speak for a positive DAP-setting as in English. The Yorùbá equivalent to *than*, *bi* introducing the

subordinated clause is a Wh-word in other contexts as shown in (10), where it is morphologically modified to *báwo*. It is assumed that in English the *than*-clause is a Wh-clause interpreted via predicate abstraction. We therefore hypothesize that the *bi*-clause in (8) should be similarly interpreted and provides a set of degrees (claim 4). This would quite naturally lead to consider the *exceed* predicate *jù* to play the role of the comparative operator (claim 3) as shown in (9).

(8) *tábìlì yìí gùn jù bi lẹ̀kùn yẹ̀n ẹ̀ se fẹ̀ lọ*
 table Det.dem be.long exceed how door Det.dem how be.wide SM
 ‘This table is longer than that door is wide.’

(9) $||jù|| = \lambda D_1. \lambda D_2. \max(D_2) > \max(D_1)$

(10) *báwo ló ga *(tó)*
 how FOC.3s be.tall reach
 ‘How tall is he/she?’

If our last assumptions are correct, we are forced to assume that Yorùbá comparative constructions are semantically quite similarly organized to English. A degree semantics is therefore called for to derive the correct interpretations. But this semantics cannot completely mimic the one developed for English. It is observed that to maintain a healthy syntax-semantics interface gradable predicates cannot be given the same lexicon entry as in English, otherwise we would have to assume that *ní iwọ̀n* in (6) is semantically empty.

LE-References

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