

Degree Achievements of Color

Introduction. Although degree achievements (*widen, cool*) have been well-studied in the semantic literature (Dowty 1979, 1991, Hay et al. 1999, Kennedy and Levin 2008, Deo et al. 2013), degree achievements formed from color adjectives have received much less attention. This talk examines the syntax and semantics of degree achievements formed from color expressions in a language without lexical adjectives, namely Malayalam. We show that degree achievements of color in Malayalam differ from degree achievements in English in two respects. First, they are composed from a verbal core and not from an adjectival core, and second, they fail to have a comparative reading (*become whiter*) and only exhibit the positive reading (*become white*). We analyze the extra morphology in these degree achievements to have the same semantics as the Dowty/Abusch (1979/1986) style BECOME operator.

Property Concept Expressions. In the absence of adjectives, Malayalam forms adjectival meaning using property concept expressions (Menon and Pancheva 2014, Menon 2016). Two classes of property concept expressions- Class 1, relative marker *-a* ending, relativized expressions (*waliya* ‘big’, *puthiya* ‘new’, *nalla* ‘good’), and Class 2, nominal marker *-am* ending, nominalized expressions (*santhosham* ‘happiness’, *pokkam* ‘tallness’, *ulsaham* ‘enthusiasm’) differ in morphology and syntactic properties. Color expressions belong to Class 1 in that they morphologically end in the relative marker *-a* (*wella* ‘white’, *neela* ‘blue’, *manna* ‘yellow’). However, their syntactic and semantic behavior exhibit both Class 1 and Class 2 properties.

Properties of Color Expressions. First, among both classes of property concept expressions, only color expressions have two forms: Simple color (*wella* ‘white’, *neela* ‘blue’, *manna* ‘yellow’) and Complex color (*wellutta* ‘white’, *karutta* ‘black’, *čuvanna* ‘red’). The behavior of Simple and Complex color terms differs in predication. Class 1 non-color expressions have to be converted into a reduced relative class using the nominalizer ‘*tə*’ in predicative position as shown in (1). Simple color expressions do not have this requirement (2). Complex color expressions behave similar to Class 1 non-color expressions (3).

(1) Class 1 Non-Color Expression, Predication

kettit̪am waliy-**a-tə** aaṇə
 building big-REL-NOML EQ-COP
 ‘The building is big.’

(2) Simple Color Expression, Predication

kuppayam well**a** aaṇə
 dress white EQ-COP
 ‘The dress is white.’

(3) Complex Color Expression, Predication

kuppayam well[-utt-**a-tə** aaṇə
 dress white-utt-REL-NOML EQ-COP
 ‘The dress is white.’

Previous Analysis. These forms have been analyzed as composing with different functional heads, thus explaining the difference in behavior (Menon and Pancheva 2016). Simple color terms compose with a *v* head encoding the semantics in (4a), the same head that composes with Class 2 nominalized expressions. Complex color terms compose with a *v_{poss}* head encoding the semantics in (4b), the same head that composes with Class 1 non-color relativized expressions. The “*-utt/-ann*” morpheme is taken to be the spell-out of the *v_{poss}* head.

(4) a. $[[\emptyset_v]] = \lambda I I \lambda x [x \text{ is an instance of } I]$

b. $[[\emptyset_{v_poss}]] = \lambda II \lambda d \lambda x \exists y [y \text{ is an instance of } II \ \& \ x \text{ has } y \ \& \ \mu(y) \geq d]$

New Observation with Complex Color Expressions. We note, in this talk, that only Complex color expressions can form verbal predicates- *we[[ukk-uka* ‘become white’, *karukk-uka* ‘become black’, *čuvakk-uka* ‘become red’. Unlike Degree achievements in English, which show variable behavior with telicity, Complex color expressions behave like telic predicates, as shown in (5).

- (5) a. kuppayam we[[ukk-unnu \nrightarrow b. kuppayam we[[utt-u
 dress white-PRES dress white-PAST
 ‘The dress is becoming white.’ ‘The dress has become white.’

Both Complex color expressions and Complex color verbs behave like telic predicates in showing modification using *in*-adverbials and not *for*-adverbials (6) -(7).

- (6) a. kuppayam oru manikuur-il we[[utt-u
 dress an hour-LOC white-PAST
 ‘The dress whitened in an hour.’
 b. #kuppayam oru manikuur neram we[[utt-u
 dress an hour for white-PAST
 ‘The dress whitened for an hour.’
 (7) a. kuppayam oru manikuur-il we[[utta niram aayi
 dress an hour-LOC white-REL color became
 ‘The dress became white in an hour.’
 b. #kuppayam oru manikuur neram we[[utta niram aayi
 dress an hour for white-REL COLOR became
 ‘The dress became white for an hour.’

Analysis. The goal of this talk is to present an account of the semantics of degree achievements of color terms. Our main analytical claims, shown through a detailed examination of English and Malayalam color expressions, is that degree achievements formed from color expressions in Malayalam fail to have the comparative reading (*become whiter*) and only have the positive reading (*become white*). We propose to analyze the “-ukk-” marker as the Dowty/Abusch-style BECOME operator in (8).

(8) $[-ukk-] = \lambda P \lambda x \lambda e. \text{BECOME}(P)(x)(e)$ where $\text{BECOME}(P)(x)(e) = 1$ iff $P(x)(\text{init}(e)) = 0$ and $P(x)(\text{fin}(e)) = 1$

(9) $[(5b)]^c = 1$ iff $\exists e[\text{BECOME}(\text{white}_c)(\text{dress})(e)]$

Consequences. This analysis correctly predicts that since the contextual standard has to be reached at the end of the event, only telic interpretation exists for these degree achievements. The interpretation that results is an absolute one and therefore incompatible with *for*-phrases. This analysis also lends support to the standard marker contributing to the semantics of comparison, as can be seen with the lack of the comparative reading (**become whiter*).

References

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