

Size Adjectives and Adnominal Degree Modification

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Degree modification outside the adjectival projection is known to be possible (Bolinger 1972, Abney 1987, Deutjes 1997, Kennedy and McNally 2004, a.o.), but remains largely mysterious. This paper examines one peculiar species of such modification, exemplified by *that enormous idiot* or *a big beer-drinker*, in which a size adjective characterizes a degree associated with the modified noun. Across a number of languages, these readings manifest two intriguing properties, apparently not previously noted: they are possible only prenominally, and systematically only with adjectives that predicate bigness. The account proposed here derives these restrictions from properties of contextual ‘degree coercion’, a process triggered by a sometimes-overtly-realized Degree head in the extended NP and yielding a gradable predicate that identifies exceeding a standard degree on its associated scale with membership in the extension of the NP.

The contrast between degree and size readings of size adjectives is a true ambiguity, not mere vagueness—(1) is not contradictory, unlike (2):

- (1) a. Gladys isn’t very big, but she is a very big beer-drinker.
b. Harry isn’t enormous, but he is an enormous idiot.
- (2) a. #This chair isn’t very big, but it is a very big chair.
b. #That building isn’t enormous, but it is an enormous building.

Degree readings are possible inside DP and behave quite regularly, as in (3–4), but they are never possible in predicative positions, as in (5):

- (3) a. Gladys is a big beer-drinker.
b. Harry is an enormous idiot.
- (4) a. Gladys is a bigger idiot than Floyd.
b. How big an idiot is Gladys?
c. Gladys is too big an idiot to talk to.
- (5) a. *That beer-drinker is big. (here and below, * is wrt the degree reading)
b. *Harry is an idiot, and he is enormous.

Equally important, degree readings are possible systematically for adjectives that predicate bigness, but not for adjectives that predicate smallness:

- (6) Harry is a $\left\{ \begin{array}{l} \text{big/enormous/huge/colossal/mammoth/gargantuan} \\ \text{*small/*tiny/*minuscule/*microscopic/*diminutive/*minute} \end{array} \right\}$ idiot.

In all these respects, true degree readings differ from ordinary size readings that happen to involve size along an abstract dimension, as in e.g. *big mistake*:

- (7) a. #That mistake wasn’t very big, but it was a very big mistake.
b. That was a mistake, and it was big.
c. That was a {big/enormous/small/tiny} mistake.

Although no existing account of these facts seems to be available, one natural impulse in this domain is to suppose certain nouns have degree arguments (Matushansky 2001 a.o.). This, though, would deflect the semantic problems of interest here (esp. about how the degree and individual arguments relate) by placing them inside the noun denotation, in addition to raising some independent compositionality problems. One might also consider relating size adjectives to adverbials such as *a lot* (building on Larson 1999), but this is a somewhat tenuous connection (**Greta drank beer bigly*) and harder to make for nouns such as *idiot*.

The proposal here is to derive degree readings of size adjectives through the interaction of nominal functional structure and contextual degree coercion. In e.g. *big beer-drinker*, the

context is taken to provide a function mapping the predicate ‘beer-drinker’ to a particular gradable predicate, which might be ‘drinks *d*-much beer’ or ‘is *d*-avid about beer-drinking’ or ‘drinks beer *d*-frequently’. This coerced gradable predicate must meet two severe restrictions. One is that all and only the individuals meeting a standard degree w.r.t. it satisfy the nominal denotation—thus *beer-drinker* can only be coerced into gradable predicates that, if satisfied to the standard degree, render one a beer-drinker. Another is that the standard degree itself not be particularly big or small:

- (8) For a coerced gradable predicate $C(\llbracket NP \rrbracket)$ and a standard degree $s_{C(\llbracket NP \rrbracket)}$,
- $\forall x[\llbracket NP \rrbracket(x) \leftrightarrow \exists d[d \geq s_{C(\llbracket NP \rrbracket)} \wedge C(\llbracket NP \rrbracket)(x)(d)]]$
 - $\neg[\text{big}(s_{C(\llbracket NP \rrbracket)}) \vee \text{small}(s_{C(\llbracket NP \rrbracket)})]$

Building on Abney 1987 and Cinque 1994, these size adjectives are introduced in the spec of a Deg head [DEG-COERCE] in the extended NP, which enforces these requirements and predicates the adjective of a degree:

- (9) $\llbracket [\text{DEG-COERCE}]_{C,s} \rrbracket = \lambda P \lambda A \lambda x: C(P) \text{ and } s_{C(P)} \text{ satisfy (8)} . P(x) \wedge \exists d[A(d) \wedge C(P)(x)(d) \wedge d \geq s_{C(P)}]$
- (10) $\llbracket [{}_{DegP} \text{big } [{}_{Deg'} [\text{DEG-COERCE}]_{C,s} [{}_{NP} \text{beer-drinker}]]] \rrbracket = \lambda x: C(\text{beer-drinker}) \text{ and } s_{C(\text{beer-drinker})} \text{ satisfy (8)} . \text{beer-drinker}(x) \wedge \exists d[\text{big}(d) \wedge C(\text{beer-drinker})(x)(d) \wedge d \geq s_{C(\text{beer-drinker})}]$

Because [DEG-COERCE] is necessary to support degree readings, their impossibility in predicative positions follows. These assumptions also explain why adjectives of smallness can’t ordinarily receive degree readings. To be e.g. *a minuscule beer-drinker*, a beer-drinker would have to satisfy the gradable predicate to a minuscule degree, and therefore to one below the standard—but any individuals that don’t meet the standard must not be beer-drinkers, so contradiction results. (Attributive *real*, which in several respects resembles degree words more than adjectives, may be among the realizations of such a nominal Deg position.)

Degree readings of size adjectives initially appear to be a relatively peripheral phenomenon, so their surprising regularity seems significant. It may shed light on the larger question of non-adjectival gradability, particularly on other nominal degree(-like) constructions such as exclamatives (*what an idiot!*). On this analysis, it supports the view that modifier interpretation may sometimes hinge on specialized elements of functional structure. And it may reveal something about adverbial readings of adjectives and about semantic coercion.

References

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