The Several Faces of Adnominal Degree Modification

Over the last decade, research following Rotstein & Winter (2001) and Kennedy & McNally (2005) (among others) has shown that degree modifiers are sensitive to the scale structure of the adjective they modify. This leads to a typology of degree modifiers. A strand of more recent research that includes Morzycki (2005, 2009), Sassoon (2007), de Vries (2010), Xie (2010) points to the conclusion that nouns admit degree modification of their own. But these degree modifiers, I will argue, differ from their adjectival cousins in an important respect: the main axis of variation among them may be not scale structure but rather the means by which gradability is achieved. The empirical starting point is the contrast between the degree modifiers real, big, and utter, each of which imposes slightly different constraints on what nouns it can modify. The real class achieves gradable interpretations via scales of prototypicality, while big and utter achieve them by accessing gradable dimensions made available lexically by certain nouns.

The basic novel observation to be explained is why the real class of degree modifiers occurs freely with most nouns, while the big class is more restricted and the utter more restricted still:

\[
\begin{align*}
(1) \quad & \text{a. \{real} \text{ true\} \{idiot smoker sportscar\}} \\
& \text{b. \{big enormous\} \{idiot smoker #sportscar\}} \\
& \text{c. \{utter absolute\} \{idiot #smoker #sportscar\}}
\end{align*}
\]

The distribution of real is not wholly unrestricted, however. They resist nouns not associated with a reasonably well-established prototype:

\[
(2) \quad \# \text{\{real} \text{ true\} \{non-Methodist nonsmoker male nurse\}}
\]

Big and utter are more selective still. They require nouns that are inherently lexically gradable. Adapting analytical intuitions of Sassoon (2007), Morzycki (2009) and de Vries (2010), I will suggest that they differ in whether these modifiers require a noun that unambiguously provide a single dimension of gradability.

Kamp & Partee (1995) provide a framework for incorporating prototypicality into nominal semantics, and Sassoon makes an especially sustained argument for its importance in this domain. Their representational assumptions diverge considerably from the most familiar ones in the Kennedy & McNally (2005) tradition, however. I will therefore adopt denotations roughly along the lines of (3), which makes use of a prototype predicate that maps properties to their prototypical exemplars and similar function that yields degrees of similarity:

\[
(3) \quad \llbracket \text{real} \text{ sportscar} \rrbracket^c = \lambda x. \text{sportscar}(x) \land \text{large}_{c}(\text{similar}(x, \text{prototype}(\text{sportscar})))
\]

This requires that in context c, x is a sportscar and the measure of its similarity to the prototype is sufficient to count as large in c. Importantly, nothing in the lexical semantics of the noun provides a
degree argument directly. Other nouns, however, do lexically provide dimensions along which to measure. It is part of what smoker means, for example, that one might be more or less a smoker depending on frequency of smoking, enthusiasm for smoking, etc. On its degree reading, big measures along such a dimension. In (4), it is defined in terms of a function dimensions maps properties to dimensions along which they can be measured and an associated measure function \( \mu \):

(4) \[ \llbracket \text{big smoker} \rrbracket^c = \lambda x . \exists D[D \in \text{dimensions}(\llbracket \text{smoker} \rrbracket)] \land \text{large}_c(\mu(D)(x)) \]

This requires that the measure of \( x \) on a dimension of smoker-hood be large. Degree big can't combine with sportscar because sportscar doesn't make any such dimensions of measurement available lexically, so dimensions(\( \llbracket \text{sportscar} \rrbracket \)) is undefined. The utter class is even more demanding. It requires not just that a noun provide a dimension, but that it provide exactly one:

(5) \[ \llbracket \text{utter idiot} \rrbracket^c = \lambda x . \text{large}_c(\mu(\iota[D[D \in \text{dimensions}(\llbracket \text{idiot} \rrbracket)]]))(x) \]

This requires that the measure of \( x \) along the unique dimension of idiocy be large. Utter can't combine with smoker because smoker provides multiple dimension, so \( \iota[D[D \in \text{dimensions}(\llbracket \text{smoker} \rrbracket)] \) is undefined.

The idea, then, is that a typology of adnominal degree modifiers emerges from how gradability is achieved. Some degree modifiers achieve it via conceptual prototypicality. Others achieve it lexically. Among the latter class, some require that a noun's lexical semantics unambiguously provide a single dimension of gradability. That such a classification is possible constitutes further evidence that these expressions are in fact degree modifiers. It also brings into sharper focus their relationship to their adjectival cousins. There may well be scale structure distinctions among adnominal degree modifiers too. But conversely, there may be distinctions in the source of gradability among adjectival degree modifiers. Indeed, this might be analogous to Bierwisch & Lang (1989)'s distinction between dimensional and non-dimensional adjectives. Either way, it suggests that examining degree modifiers in this spirit may turn out to be as fruitful in the nominal domain as it has been for adjectives.

References

Morzycki, M. 2009. Degree modification of gradable nouns: size adjectives and adnominal degree morphemes. NALS.