A Superlative Argument for a Minimal Theory of Definiteness

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Coppock & Beaver (2012) argue in favor of decoupling existence and uniqueness in the analysis of definiteness. This paper argues that the 'relative' reading of superlatives as in (1a), on which Gloria climbed a higher mountain than anyone else in the context, provides further evidence in favor of this approach.

(1) a. Gloria climbed the highest mountain.

b.??Gloria climbed a highest mountain.

On such readings, the definite article is sometimes analyzed as underlyingly indefinite. According to 'DP-external' analyses of relative readings (Szabolcsi, 1986; Heim, 1999; Hackl, 2009), the superlative takes scope outside the object DP and *the* must be interpreted as *a* because its uniqueness presupposition is not satisfied by its complement. While such DPs do display indefinite-like behaviors, we argue that the definite article is not meaningless in such constructions, and reconcile this tension in terms of *weak uniqueness*.

Interpreting *the* as *a* falsely predicts that (1b) should be acceptable and synonymous with (1a). (1b) cannot be ruled out on the basis of a syntactic requirement for a definite article before a superlative because there is no such requirement (Herdan & Sharvit 2006; e.g. *Is there a best student in your class?*). This view also fails to distinguish between (2a) and (2b), as Krasikova (2012) points out.

(2) a. Gloria climbed the most mountains.

b. Gloria climbed most mountains.

(2a) has only a relative reading, while (2b) has only a proportional reading ('Gloria climbed most of the mountains'), so the determiner affects the meaning.

'DP-internal analyses', on which the superlative is interpreted inside the DP (Farkas & É. Kiss, 2000; Sharvit & Stateva, 2002; Teodorescu, 2009) do not require interpreting *the* as *a* and can thereby avoid these problems (although Sharvit & Stateva (2002) also make this assumption for purposes that can be met otherwise).

However, DP-external analyses seem to be the only ones that can account for sentences like (3), which should be nonsense on a DP-internal analysis with Fregean *the* (Heim, 1999).

(3) If nobody unambiguously climbs the highest mountain, the prize is not awarded.

Furthermore, there is hard evidence that the definites in such cases are in some sense semantically indefinite, as Szabolcsi has shown. We add that relative superlatives contrast with ordinary definites with respect to anaphora, denial of existence, non-restrictive modification, and strict VP-anaphora:

(4) Perhaps Sue climbed the {#most, snow-capped} mountains. I took a picture of them.

- (5) Sue wanted to eat the {most, #large} apples, but there were no apples.
- (6) Sue wanted to see the {#most, old} marble statues, which I had showed her a picture of.
- (7) Sue wanted to see the {#most, old} marble statues, and so did John. Therefore Sue and John wanted to see the same statues.

We note that minimizing NPI superlatives (not accounted for in prior work) pattern similarly:

(8) Jane didn't drink the {#tiniest, tiny} drop of whiskey. John didn't drink it either.

These facts indicate that definites with superlatives may lack the existence presupposition that is normally associated with definite descriptions. This is not predicted by existing DP-internal analyses of superlatives. (Heim also argues for a DP-external analysis based on 'upstairs *de dicto*' readings but Sharvit & Stateva (2002) and Teodorescu (2009) argue that these are consistent with a DP-internal analysis.)

Krasikova (2012) proposes that *the* can operate within DegP and signal uniqueness of a degree property. This analysis maintains the integrity of the definite article while predicting that

the DP is indefinite. However, it runs into problems with the at-issue entailment of uniqueness at the individual/DP-level that superlatives give rise to. Imagine that everyone in a choir is given two tickets to sell, and most people manage to sell both tickets, including Sally. Then it would be felicitous to say *Sally sold the maximum number of tickets*, but not (9).

(9) Sally sold the most tickets.

In order to avoid the prediction that (9) is true in this context, Krasikova intensionalizes the degree property, but then (9) ends up meaning that the highest number of tickets that Sally could possibly sell is higher than the highest number anyone else could sell.

We use Coppock & Beaver's (2012) independently-motivated analysis of definiteness to overcome all of these problems. We maintain that *the* always means *the*, but what it denotes is an identity function on predicates which encodes only *weak uniqueness*, i.e., that there is a maximum of one satisfier of the description, possibly zero (so *the* does not presuppose or entail existence). For use in argument position, (in)definite descriptions are interpreted via the same coercions that bare nominals in article-less languages undergo, including an ι -shift (yielding an individual) and an existential shift (yielding an existential quantifier). The latter makes it possible to account for the indefinite-like behavior of the object DP and the possibility of (3).

We analyze *the* as follows, where ∂ is Beaver & Krahmer's (2001) partiality operator.

(10) the
$$\rightsquigarrow \lambda P \lambda x [\partial (|P| \le 1) \land P(x)]$$

With a DP-internal analysis of superlatives, Heim's (1999) lexical entry for *-est* (or a more decompositional analysis as argued for by Szabolcsi (2012)), we have the following interpretation for *tallest mountain* (ignoring *-est*'s presuppositions):

(11)
$$\lambda x \exists d[\operatorname{TALL}(x,d) \land \operatorname{MTN}(x) \land \forall y[y \neq x \land C(y) \rightarrow \neg[\operatorname{TALL}(y,d) \land \operatorname{MTN}(y)]]]$$

Regardless of how C is saturated, this property can hold of at most one individual – none in the case of a tie for highest mountain. Hence *the*'s presuppositions are satisfied, and it is licensed, while *Maximize Presupposition* predicts the unacceptability of (1b).

Now, if (weak) uniqueness *and* existence are not both in the common ground, then the ι -shift will not be applicable and the existential shift will apply. This will lead to the following interpretation for (1a), abbreviating (11) as TALLEST-MTN_C:

(12) $\exists x [\text{CLIMBED}(G, x) \land \partial(|\text{TALLEST-MTN}_C| \leq 1) \land \text{TALLEST-MTN}_C(x)]$

Since this does not presuppose existence of a tallest mountain, (3) and (5) are predicted to be felicitous. And these definite descriptions have the same anaphoric potential as indefinites, hence the behavior displayed in (4), (6), and (7). It is entailed that there is only one mountain satisfying the property, so we correctly capture the uniqueness entailment illustrated with (9).

We conclude that by taking the definite article to encode weak uniqueness and allowing it to undergo an existential shift, we can maintain its integrity and thereby avoid overgeneration, while accounting for both the indefinite-like behavior and the uniqueness entailment exhibited by definites in relative superlatives. Superlatives thus provide a new argument for decoupling uniqueness and existence.

References: Beaver & Krahmer 2001: A partial account of presupposition projection; *JoLLI* \bullet Coppock & Beaver 2012: Weak uniqueness: The only difference between definites and indefinites; *SALT 22* \bullet Farkas & Kiss 2000: On the comparative and absolute readings of superlatives; *NLLT* \bullet Hackl 2009: On the grammar and processing of proportional quantifiers; *NLS* \bullet Heim 1999: Notes on superlatives \bullet Herdan & Sharvit 2006: Definite and nondefinite superlatives and NPI licensing; *Syntax* \bullet Krasikova 2012: Definiteness in superlatives; in *Logic, language and meaning.* \bullet Sharvit & Stateva 2002: Superlative expressions, context, and focus; *L&P* \bullet Szabolcsi 1986: Comparative superlatives; in *Papers in theoretical linguistics* \bullet Szabolcsi 2012: Compositionality without word boundaries: (*the) more* and (*the) most*; *SALT 22* \bullet Teodorescu 2009: *Modification in the noun phrase: The syntax, semantics, and pragmatics of adjectives and superlatives*; UT Austin dissertation.