

## The degree argument and the definiteness effect

**Introduction** Traditionally comparatives are thought to involve quantifications over degrees, as shown in (1). However, the existence of a quantificational degree argument is recently under debate. Kennedy (1997) rejects the quantificational view because the degree argument doesn't seem to enter into the scope ambiguity with other quantificational elements. On the other hand, Heim (2000) defends the quantificational view based on the fact of ellipsis. This is an interesting question because the semantic analysis of the degree argument directly influences the syntactic structure of comparatives (Larson 1991, Kennedy 1997, Bhatt and Pancheva 2004). In this paper, I will show that the definiteness effect (DE) in attributive comparatives provides new evidence to support the quantificational degree argument. In particular the DE can be accounted for if we assume a quantificational degree argument whose LF movement is constrained by the quantifier intervention effect discussed in Beck (1996).

**The Definiteness Effect** Lerner and Pinkal (1995) noticed the DE in attributive comparatives. As shown in (2), the comparative DP has to be an indefinite DP. Beil (1997) attributes the DE to the absence of a presupposed comparison set in the previous context. However, as shown in (3), the DE can't be avoided even when there is a presupposed comparison set in the previous context.

**Analysis** I will argue that DE is triggered when the degree argument moves at LF to resolve ACD. As shown in (4), first the object DP undergoes QR and the main predicate is copied into the ellipsis site, as in (5). In order to derive the correct interpretation, we need a degree variable within the ellipsis site, but we only have an individual type variable at this point. The degree argument undergoes a second QR to create a degree variable, as shown in (6), and the NP that contains the degree variable is now copied into the ellipsis site, as in (7). It is the movement of the degree argument in (6) that triggers the DE. Following Beck (1996), LF movement that crosses another quantificational element on the way is blocked, as in (8). Since weak determiners are not inherently quantificational they don't induce the same intervention effect as strong determiners (Beck 1996, Diesing 1994). The movement in (6) will be blocked if it has to cross a strong determiner such as *every*. This gives us the contrast in (2).

**Predictions** This analysis predicts that if no movement is needed to resolve ACD, the DE shouldn't be triggered by strong determiners. This prediction is borne out. Lerner and Pinkal (1995) distinguishes two kinds of phrasal attributive comparatives: the narrow reading (NRA) (9a) is genuinely phrasal and doesn't involve ellipsis, whereas the wide reading (WRA) (9b) is an ellipsis construction. As shown in (10) and (11), when a phrasal comparative is ambiguous between the two readings, the WRA reading is subject to the DE, but the NRA reading is not. This analysis also predicts that the degree argument can't stay inside an island, because to resolve ACD it has to move out of the island at LF, which will lead to ungrammaticality. This prediction is also borne out too by the contrast in (12). (12a) undergoes a similar derivation to (3a). As for (12b), the degree argument [*-er than Bill did*] originates within a relative clause island, and is banned from movement.

**Conclusion** The definiteness effect in attributive comparatives provides us an opportunity to see the movement of the degree argument at LF, and therefore supports Heim (2000) and the traditional view that comparatives involve quantification over degrees.

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- (1) John is taller than Bill.  
John is [ (-er than Bill) tall]
- (2) a. George owns a/some/a few faster car(s) than Bill (does).  
b. \*George owns every/the faster car than Bill (does).
- (3) a. Of those cars, Bill owns some. George owns a/some/a few faster car(s) than Bill (does).  
b. Of those cars, Bill owns some. \*George owns every/the faster car than Bill (does).
- (4)  $[_{DP} a/every [_{NP} [_{DegP} \text{-er than Bill does} ] \text{fast car}]]_i [George \text{ owns } t_i]$
- (5)  $[_{DP} a/every [_{NP} [_{DegP} \text{-er than Bill [owns } \mathbf{t} ] ] \text{fast car}]]_i$   
∇  
individual type variable
- (6)  $[_{DegP} \text{-er than Bill [owns } t ] ]_i [_{DP} a/every [_{NP} \mathbf{d}_i \text{-fast car}]]$   
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DE is triggered by strong, but not weak determiners
- (7)  $[_{DegP} \text{-er than Bill [owns } d \text{-fast car} ] ]_j [_{DP} a/every [_{NP} \mathbf{d}_j \text{-fast car}]]$
- (8) \* $[ \dots X_i \dots [ Q \dots [ \dots t_i \dots ] ] ]$
- (9) a. George ate a bigger cake than this one.  
b. George ate a bigger cake than Bill (did).
- (10) Sue defeated **a** stronger contestant than Al.  
a. Sue defeated a contestant that is stronger than Al is.  
b. Sue defeated a stronger contestant than Al did. (i.e. the contestant defeated by Sue is stronger than the contestant defeated by Al.)
- (11) ?Sue defeated **every** stronger contestant than Al.  
a. Sue defeated every contestant stronger than Al.  
b. \*Sue defeated every stronger contestant than Al did (i.e. every contestant defeated by Sue is stronger than every contestant defeated by Al).
- (12) a. John met a taller girl than Bill did.  
b. \*John met a girl who is taller than Bill did.