

## Move and Accommodate: A Solution to Higginbotham's Puzzle

The uniqueness presupposition of a definite description often seems weaker when the definite occurs in the restriction of another definite. For example, while the uniqueness presupposition of *the circle* is not satisfied in the scene sketched below, as part of the complex definite *the square in the circle* the same definite is felicitous, given that there is only one circle with a square in it (cf. Higginbotham 2006 and others). We show that this well-known problem can be reduced to standard assumptions about accommodation and inverse linking. We furthermore present experimental evidence that corroborates a central prediction of our account: that locality affects definites embedded in definites.



**Proposal** We propose that the inner definite description scopes out of the noun phrase containing it, as in examples of inverse linking. We illustrate the proposal for sentence (1a). We assume that quantifier raising results in the tripartite structure in (1b) or something analogous to it.

- (1) a. The square in the/#a circle is black.  
 b. the [circle] [ $\lambda_x$  the square in  $x$  is black].

We assume that when *the* undergoes quantifier raising, it is interpreted as a generalized quantifier of type  $\langle et, \langle et, t \rangle \rangle$  with a uniqueness presupposition on its restrictor. Formally, we assume that presuppositions can be introduced and sometimes projected as predicates, as e.g. in Karttunen and Peters (1979). For example, we represent the presupposition of the verb *curtsy* as  $\lambda x. \text{female}(x)$ . We further assume that a presupposition  $P$  of the nuclear scope  $S$  of a quantifier  $D$  can be quite easily accommodated into its restrictor  $R$  as shown in (2) (van der Sandt 1992 and others):

- (2) 'Intermediate Accommodation':  
 $D [R] [S]$  where  $S$  presupposes  $P$  can be interpreted as  $D [R \wedge P] [S]$

Intermediate Accommodation in (1b) adds the presupposition ' $\lambda x. \text{a unique square is in } x$ ' to the restrictor of *the circle*. Intermediate accommodation therefore explains how the uniqueness presupposition of the definite *the circle* is satisfied. If we adopt the *Maximize Presupposition* maxim of Heim et al. (1991), the account furthermore predicts that the indefinite form *a circle* is blocked by the definite form.

**Locality** Our account differs crucially from previous proposals (Haddock, 1987; Meier, 2003) in that it locates the phenomenon in the syntax. We therefore predict that syntactic factors such as locality should interact with the availability of presupposition weakening. Here is an illustration. Inverse linking (wide scope over determiner) is possible from arguments and some adjuncts like *in*-PPs, but more difficult from subject relatives containing an object quantifier (Rodman 1976):

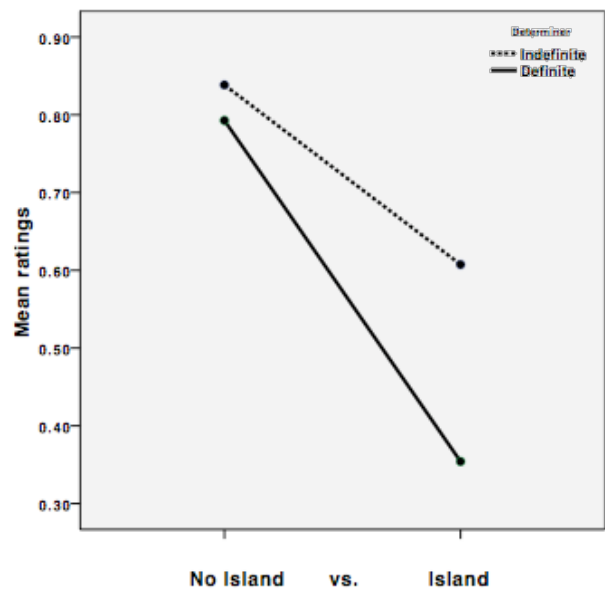
- (3) a. An apple in every basket is rotten.  
 b. # An apple that is in every basket is rotten.

Our assumption that inverse linking is at work in nested definites predicts that the same effect should be observed there too (*locality prediction*):

- (4) a. The square in the/#a circle is black.  
 b. The square that is in a/#the circle is black.

**Experimental Evidence** We are currently conducting a questionnaire study to test the locality prediction. Here we report the results of a pilot study performed on 21 native speaker participants. We presented 14 sentences in randomized order, interspersed with fillers. Using the magnitude estimation method (Bard et al. 1996), we asked to rate how good or bad the sentence was in comparison to a reference item. Along with the sentences we displayed two pictures, one as shown above, the other one with men and hats instead of squares and circles. Each sentence contained a nested DP whose outer determiner was always definite. The inner determiner was either definite or indefinite. The DP was either free of islands as in (4a) or it contained an island as in (4b).

The normalized results are shown on the right. The main effect of islands on ratings is significant, i.e. islands degrade ratings ( $p = .000$ ;  $F_{island} = 18.509$ ). The difference between determiners in the absence of islands is not significant ( $p = .679$ ). There is not enough evidence to conclude that islandhood has an effect of the choice of determiner (2-way ANOVA:  $p = .186$ ). However, indefinites are clearly preferred when there is an island (simple effect significant:  $p = .024$ ;  $F = 5.299$ ). In other words, while we could not yet replicate the basic judgments illustrated in (1) and (4a), we found the predicted judgment in (4b) to be correct – inside an island, an indefinite is preferred. This is in line with our locality prediction and therefore lends support to our account.



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