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Inverse scope in Hungarian: types of quantifiers and grammatical functions

1 Introduction. In my talk I deal with the syntax of inverse scope in Hungarian. My aim is to account for both the contrast between distributive and counting quantifiers (e.g. *minden N* 'every N' – *kevesebb, mint n N* 'fewer than n N') and the subject–object scopal asymmetry. My analysis is based on the theory of operator series (Brody–Szabolcsi (2003)), adopting the idea of object scrambling from Surányi (2006).

2 The phenomena to be accounted for. The possibility of inverse scope reading depends on several factors. As Beghelli–Stowell (1997) and Szabolcsi (1997) demonstrated, the scopal behaviour of distributive and counting quantifiers are very different. In the analysis proposed by Brody–Szabolcsi (2003) operator series were introduced, in which the RefP>DistP>CountP functional hierarchy corresponds to the scopal hierarchy of operators. The Ranking Generalization (Liu (1997)) claims that a lower ranking quantifier cannot take inverse scope over a higher ranking one, which correctly predicts the contrast between (1b) and (2b). Nevertheless, Surányi (2002, 2006) points out that even in Hungarian grammatical functions play a crucial role in scope relations: a subject–object asymmetry can be observed in (1b) and (3b). We can see that in Hungarian a counting quantifier can take inverse scope over a distributive quantifier if the counting quantifier is the subject and the distributive one is the object (3b). Accordingly, the Ranking Generalization should be modified in the following way: X cannot take inverse scope over Y if X is lower than Y in both the operator and the argument hierarchy. I try to provide a structural explanation for this empirical generalization.

3 A few problems. In the previous analyses (3b) cannot be generated because a counting quantifier is not allowed to take inverse scope over a distributive quantifier: in Brody–Szabolcsi (2003) the element selected by Count must occupy the complement position (unless its category is CountP as well), while É.Kiss (2010) assumes that the counting quantifier cannot be in an adjoined position unlike the distributive quantifier. However, in certain cases inverse scope is not possible: the counting quantifier cannot take inverse scope if it is lower in the argument hierarchy and it cannot take scope over a preverbal operator. Another problem is that in (4a) the object counting quantifier has wider scope than the subject distributive quantifier, which conflicts with the analysis of Brody–Szabolcsi (2003): they assume that the operator series immediately above AgrSP is the highest and in this series the counting quantifier cannot be in a higher position due to the RefP>DistP>CountP hierarchy. But if it can be solved in some way, the question arises why this scope reading cannot be expressed in English at all (by either direct or inverse scope).

4 The proposed analysis. I will use remnant movement as a theoretical device for structures interpreted with inverse scope. My assumption is that the operator series above AgrSP is not the highest: there is an operator series that is found above FinP, and CountP is recursive in all series. In Hungarian the object counting quantifier can occupy a position in the series above FinP and so it can take scope over the subject distributive quantifier. The functional hierarchy is universal, but in English the highest scopal series will not be available for the counting quantifier, which follows from a freezing effect, and – unlike Hungarian – English has no alternative strategy. If the distributive quantifier moves from Spec, DistP to a higher Spec, DistP position (5a) then it can have wider scope than an operator that is higher in the argument hierarchy (2b), (3a). I argue that the counting quantifier cannot move from Spec, CountP to Spec, CountP in a similar way (5b), and this syntactic difference between distributive and counting quantifiers is assumed to be universal. On the other hand, the object counting quantifier is not allowed to move from AgrOP to CountP in the next series for locality reasons (5c). The object counting quantifier can reach a series higher than the one immediately above AgrOP only if scrambling is applied to some intermediate position(s) separating operator series (Spec, YP in (5d)). Object scrambling is a language-specific operation, which is possible in Hungarian (Surányi (2006)), and in my proposal it can account for the structural position of the object counting quantifier in (4a). Furthermore, I show that in Hungarian either verb movement or VP movement is

implemented in structures containing a counting quantifier, required by a language-specific parameter. Inverse scope can be generated by VP movement in (3b), while the counting quantifier in the series above FinP cannot take inverse scope. This makes correct predictions for both the scopal behaviour of the counting quantifier and the linear position of the verb.

5 Conclusion. In Hungarian the counting quantifier can take inverse scope over a distributive quantifier depending on the argument hierarchy. I proposed an extended version of the theory of operator series and a principle barring the movement from Spec, CountP. As for language-specific properties, in my analysis a VP movement is possible in the case of the presence of CountP and object scrambling is allowed in Hungarian.

(1) Tavaly végzett el minden diák kevesebb, mint öt kurzust.
last.year do-PAST-SG3 PREV every student(NOM) fewer than five course-ACC
'It was last year that every student did fewer than five courses.'
a. every > fewer than five S > O (direct)
b. * fewer than five > every O > S (inverse)

(2) Tavaly végzett el kevesebb, mint húsz diák minden kurzust.
last.year do-PAST-SG3 PREV fewer than twenty student(NOM) every course-ACC
'It was last year that fewer than twenty students did every course.'
a. fewer than twenty > every S > O (direct)
b. every > fewer than twenty O > S (inverse)

(3) Tavaly végzett el minden kurzust kevesebb, mint húsz diák.
last.year do-PAST-SG3 PREV every course-ACC fewer than twenty student(NOM)
'It was last year that fewer than twenty students did every course.'
a. every > fewer than twenty O > S (direct)
b. fewer than twenty > every S > O (inverse)

(4) Tavaly végzett el kevesebb, mint öt kurzust minden diák.
last.year do-PAST-SG3 PREV fewer than five course-ACC every student(NOM)
a. 'It was last year that there were fewer than five courses that every student did.'
b. 'It was last year that every student did fewer than five courses.'
a. fewer than five > every O > S (direct)
b. every > fewer than five S > O (inverse)

(5) a. [$_{DistP}$ *every*-OBJ [$_{YP}$ | [$_{DistP}$ (*every*-OBJ) [$_{AgrOP}$ (*every*-OBJ)]]]]
b. * [$_{CountP}$ *few*-OBJ [$_{YP}$ | [$_{CountP}$ (*few*-OBJ) [$_{AgrOP}$ (*few*-OBJ)]]]]
c. * [$_{CountP}$ *few*-OBJ [$_{YP}$ | … [$_{AgrOP}$ (*few*-OBJ)]]]
d. [$_{CountP}$ *few*-OBJ [$_{YP}$ (*few*-OBJ) | … [$_{AgrOP}$ (*few*-OBJ)]]]

References

Beghelli, Filippo–Stowell, Tim. (1997) "Distributivity and negation: The syntax of *each* and *every*." In: Szabolcsi Anna ed.: *Ways of scope taking.* 71-107. Kluwer, Dordrecht.

Bródy, Mihály–Szabolcsi, Anna. (2003) "Overt scope in Hungarian." *Syntax* 6 : 1, 19-51.

É.Kiss, Katalin. (2010) "An adjunction analysis of quantifiers and adverbials in the Hungarian sentence." *Lingua.* 120, 506-526.

Liu, Feng-hsi. (1997) *Scope and Specificity*. John Benjamins, Amsterdam.

Surányi, Balázs. (2002) *Multiple operator movements in Hungarian.* PhD dissertation, UiL OTS, Utrecht.

Surányi, Balázs. (2006) "Scrambling in Hungarian." *Acta Linguistica Hungarica* 53, 393-432.

Szabolcsi, Anna. (1997) "Strategies for Scope Taking." In: Szabolcsi Anna ed.: *Ways of scope taking.* 109-154. Kluwer, Dordrecht.