Intonational Phrasing, Discontinuity, and the Scope of Negation

We argue that the theory of scope taking developed in Kayne (1998) can profitably be supplemented with an adjacency requirement familiar from conditions on reanalysis/restructuring (cf. Haegeman & van Riemsdijk 1986). In particular we propose a phonotactic constraint on (extended) restructuring (ERC) to the effect that extending the scope of \( Q \) over a region \( \alpha \) requires \( \alpha \) to be linearly continuous and realized as a prosodic unit, cf. (1).

(1a) \((Q)\) \( )\( (Q)_{(\alpha)}\)
(1b) \( (Q)_{(\alpha)}\)
(1c) \( (Q)_{(\alpha)}\)

Scope extension over \( \alpha \) is possible for \( Q \) in (1a)/(1b) but excluded (or "degraded") in (1c). Evidence for this comes from alternative scope options in structures containing control infinitivals and subjunctive complements. These options correlate with the distribution of intonational boundaries (I). Likewise, directionality effects (cf. Koster 1987) on peculiar scoping differences between VO and OV languages are correctly predicted (II). As a result, the stipulative ban on movement rules like "long-distance particle preposing" (Kayne 1998) can be dispensed with.

I. Consider the following scope ambiguity, familiar from Kliima (1964):

(2) I will force you to marry no one

As soon as an IP-boundary (\( I \)) is inserted to the right of you (cf. Taglicht 1998), illustrated in (3), the negative quantifier is confined to narrow scope:

(3) I will force you || to marry no one

Wide scope requires an obliteration of the boundary in (3), as shown in (4):

(4) I will force you to marry | no one

The quantifier is set off by a weaker (ip)-boundary (Ladd 1996). Note that the two "predicates" the negative quantifier takes scope over in (4) have to end up inside a single IP. Compare also the contrasts in (5)/(6), discussed in Kayne (1998):

(5a) They forced us to turn down no one
(5b) They forced us to turn down no one

She has requested that she read not a single linguistics book

While (5a)/(6a) behave - mutatis mutandis - like (2) wrt scope and intonation, wide scope in (5b)/(6b) is degraded. Of course, the compound expressions the negative quantifier is meant to take scope over, namely, forced-us-to-turn-down and requested-that-read-our-book, are linearly discontinuous in (5b)/(6b). This is further aggravated by the fact that in order to take wide scope the negative quantifier would seem to have to at least project an ip-constituent interrupting the crucial expression, as shown in (7).

(7) a. They [ down ] forced us to turn no one t;
   b. She has requested that | not a single student | read our book

Kayne (1998) accounts for the missing wide scope reading in (5b) by a (stipulated) ban on "long-distance particle preposing." Thus the transition from (5b) to (8a), the first step toward deriving wide scope negation, is ruled out.

(8a) They [ down ] forced us to turn no one t;
(8b) They [ no one ] / down ], forced us to turn t;
(8c) They [ forced us to turn t; ] / down ];

Kayne's surface scoping approach would allow a fairly direct mapping onto prosodic constituency. Thus, it can be claimed that it is not long-distance particle preposing as such which must be ruled out. Instead the output (8c) is illformed at the interface, given that down has to project its own prosodic constituent. More importantly, it is in conflict with the following condition on (extended) restructuring, which is fulfilled in (5a) as (10) indicates, cf. (4).

(10) ERC: (Extended) Restructuring can only apply to continuous expressions forming a single prosodic unit.

The analysis of (6b) vs (6a) runs along the same lines. Thus, no ban on "long-distance VP-preposing" would have to be stipulated in the case of (6b). Likewise, lack of wide scope is unlikely to follow from that-t violation, as speculated in Kayne (1998). Thus, (11) equally disallows wide scope of the negative quantifier, although parentheticals have been shown by Culicover (1993) to void that-t effects.

(11) She has requested that - given lack of time - not a single student read our book

In sum, wide scope taking in (2), (5a), and (6a) requires a quantificational element to be adjacent to an expression meeting the ERC, i.e. the structures must schematically conform to (1a).

II. The pattern just described is familiar from "standard" restructuring in OV-languages like German (Lemer & Stemefeld 1984, Bayer 1996).

(12) a. weil sie niemanden zu grüssen verspricht  b. weil sie verspricht || niemanden zu grüssen

Only (12a) allows both a narrow and wide scope construal of the negative quantifier, the latter being preferred if an ip-boundary is inserted immediately after the quantifier. (12b) lacks the wide scope option, correlated - again - with an (obligatory) IP-boundary. In fact, boundary obliteration, implementable in terms of "leftward annexation" (Taglicht 1998), would be of no avail in the case of (12b), given the discontinuity of versprechen and zu grüssen. Thus, the ERC cannot be met, and the negative quantifier is unable to become adjacent to a restructured expression.

(13) a. weil sie dass man kein einziges Buch lese verlangte  b. weil sie verlangte dass man kein einziges Buch lese

(14) a. weil sie dass man kein einziges Buch lese verlangte  b. weil sie verlangte dass man kein einziges Buch lese
Neither (13a) nor (13b) allows for the extended restructuring of \textit{verlangte-dass-man-lese}, wrt which the negative quantifier could take wide scope. Given the ERC, it is correctly predicted that the wide scope reading is absent. The picture is completed by the fact that applying V2 to the structures in (12), as shown in (14), seems to interfere with the wide scope reading (pace Haegeman\&vanRiemsdijk 1986). Note the (obligatory) boundary following the finite verb. (14) \textit{Sie versprach || niemanden zu grüssen}
Again we find the material failing to undergo restructuring in linearly discontinuous domains of type (1c).