Phonological Phrasing Meets Scrambling: The Case of Turkish

It has been proposed that scope cannot exceed a Ma(jor)P(hrase) boundary in Japanese (Selkirk & Tateishi 1991, Hirotani 2004, Ishihara 2007). I show that phonological phrasing facts in Turkish comply with the whole set of predictions made by the scope/phrasing correspondence analysis in Japanese, implying a very direct mapping from syntax to phonology. However, phonology further constrains the output of syntax in informationally sensitive scrambling cases.

I introduce a right edge phrase boundary tone in Turkish. This tone (/) is a high tone optionally placed on the right edge of a topic (1b), and an adverbial that escapes the scope of negation (2b, 2d), as opposed to the one in a minimal pair that does not (2a). This tone is optionally followed by an audible pause (|), and signals that the constituent(s) it accompanies is removed from the scope of the predicate.

(1) a. Ali bugün sinema-ya gitti. Ali-NOM today movies-DAT went 'Ali went to the movies today.'

b. A/li | bu/gün | sinema-ya gitti.
Ali-NOM today movies-DAT went
'As for Ali, as for what he did today, he went to the movies.'

- (2) a. (Ben) uyu-ma-n için konuş-mu-yor-um.
 (I-NOM) sleep-COMP-2sg for talk-NEG-PROG-1sg
 'I'm not talking so that you ∨sleep. (I'm talking for another reason.)'
 neg >> reason
 - b. Uyu-ma-n i/çin | konuş-mu-yor-um. Sleep-COMP-2sg for talk-NEG-PROG-1sg
 'I'm not talking so that you \sleep. (I'm not talking, with the intention of helping you sleep.)' *neg >> reason
 - c. *Ben uyu-ma-n i/ çin | konuş-mu-yor-um.
 - d. /Ben | uyu-ma-n i/ çin | konuş-mu-yor-um.

One piece of evidence in support of scope/phrasing correspondence comes from (2) directly. A clausal adverbial separated by a phrase boundary cannot be interpreted in the scope of sentential negation. That this adverbial is indeed moved syntactically from its base position is illustrated by the fact that it cannot follow the matrix subject (2c) unless the subject itself is topicalized, and thus carries a high tone (2d).

The second set of evidence replicates the Japanese examples used to motivate the scope/phonological correspondence. Namely, when a scopal element is interpreted under negation, it is under the scope in syntax, and will be phrased as such, so we do not expect a high tone boundary marker on a subject that needs to be in the scope of negation.

In Turkish, a universally quantified subject NP scopes lower than negation, in both SOV (3a) and OSV sentences (3b), while in Japanese, reverse scope facts obtain with OSV being ambiguous (Miyagawa 2001). This Subject that is raised to spec, T in Japanese forms a separate phonological phrase (4, indicated by brackets) (Ishihara 2007). In Turkish, the subject stays in vP, therefore under the scope of negation (see Ozturk 2005). The prediction would be that this phrasing is impossible in Turkish, since the subject is syntactically lower than negation. This prediction turns out to be correct (5).

(3)	a. Herkes o test-e gir-me-di. Everyone-NOM that test-DAT enter-NEG-PAST				
	'Not everyone tool	k that test.'	$\operatorname{neg} \gg \forall$, $*\forall \gg \operatorname{neg}$		
	b. O test-e herkes gir-me-di.				
	that test-DAT everyone-NOM enter-NEG-PAST				
	'That test, not everyone took it.'		$\operatorname{neg} >> \forall$, $*\forall >> \operatorname{neg}$		
(4)	Japanese $S_i t_i OV$	$\forall >> $ neg	(everyone-nom) (that test-acc did.not.take)		
(5)	Turkish SOV	$neg \gg \forall$	(everyone-nom that test-dat did.not.enter)		

(everyone-nom that test-dat did.not.enter) *(everyone-nom) (that test-dat did.not.enter)

OSV sentences of this sort are surface-ambiguous in Japanese. The total negation OSV sentence is built by the movement of both the scrambled Object and the A-moved Subject, while the partial negation OSV sentence is the result of the A-movement of the Object only (Miyawaga 2001). The latter is the sole interpretation and related syntax we obtain in Turkish (Ozturk 2005). There are indeed two phrasings that these different structures are mapped into, yielding the related scope differences (6). In Turkish, we only get one phrasing, which is exactly the one that phrases the subject with the predicate (7).

(6)	Japanese	$O_j \; S \; t_j V$	$\forall >> $ neg
		$O_j S_i t_i t_j V$	$neg >> \forall$
(7)	Turkish	$O_j S t_j V$	$\forall >> $ neg

(that test-dat) (everyone-nom did.not.enter) *(that test-dat) (everyone-nom) (did.not.enter)

(that test-acc) (everyone-nom did.not.take) (that test-acc) (everyone-nom) (did.not.take)

However, there is one problem with this neat syntax-prosody mapping. Turkish employs a form of scrambling which is sensitive to givenness. Given elements can occur in this tonally flat position. Due to this prosodic constraint, the high tone we see in (1b), (2) and fail to see in (3) will never be realized. The adverbial is now obligatorily interpreted outside of the scope of negation (8a, cf 2b), but without the high tone. One might think this scopal realization has a syntactic basis. However, with universally quantified subjects in postverbal position in a negative sentence, the picture changes. Here, the universal quantifier fails to be interpreted outside of the scope of negation (8b), resisting a syntactic explanation. Phonological phrasing somehow puts this subject back into the scope of negation. This instantiates a case where the interface constrains (here between syntax and phonology) dictate a certain interpretation.

a. Konuş-mu-yor-um uyu-ma-n için / *i/ çin. (8) talk-NEG-PROG-1sg sleep-COMP-2sg 'I'm not talking so that you \sleep. *neg >> reason b. O test-e gir-me-di herkes. that test-DAT enter-NEG-PAST everyone-NOM 'That test, not everyone took it.' $neg >> \forall, *\forall >> neg$

References:

Hirotani, Masako (2004). Prosody and LF: Processing Japanese wh-questions. Unpublished Ph.D. dissertation, University of Massachusetts, Amherst. Ishihara, Shinichiro (2007). Major Phrase, Focus Intonation, Multiple Spell-out. Linguistic Review 24: 137-167. Miyagawa, Shigeru (2001). The EPP, scrambling, and wh-in-situ. In Kenstowicz (2001), 293-338. Öztürk, Balkız (2005). Case, Referentiality and Phrase Structure. Amsterdam/Philadelphia: John Benjamins. Selkirk, Elisabeth and Koichi Tateishi (1991). Syntax and downstep in Japanese. In Interdisciplinary Approaches to Language: Essays in Honor of S.-Y. Kuroda, Carol Georgopoulos and Roberta Ishihara (eds.), 519-543. Dordrecht: Kluwer Academic Publishers.