

Scrambling and the feature-based approach to Minimality

Rebecca Shields, University of Wisconsin-Madison

This paper is concerned with an empirical puzzle concerning long-distance (LD) scrambling in various grammatical contexts in Russian. In some cases, Superiority effects obtain, but in others they do not. I pursue a solution in terms of Rizzi's 2005 feature-based implementation of Relativized Minimality.

The puzzle is as follows. First, when we consider LD argument scrambling as in (1), we observe a lack of certain locality effects: LD-extraction out of a *wh*-island is possible (2), and apparent Minimality violations are also grammatical (3).¹ Similar facts are reported for Japanese LD argument scrambling by Bošković & Takahashi (1998) (henceforth BT). BT cite the lack of such locality effects as support for their claim that scrambling is a base-generated dependency rather than a leftward movement dependency. However, when we consider LD adjunct scrambling, the picture is different: extraction out of a *wh*-island is still possible (4), but Minimality configurations yield ungrammaticality (5). In particular, the presence of the frequency adverb appears to block movement of the lower manner adverb *bystro* 'quickly' in (5), in contrast to (3) where LD scrambling of one argument across an intervening argument in A'-position is allowed. Furthermore, in some cases even LD argument scrambling appears to show Minimality effects. In (6), both arguments of the embedded clause are NPIs/Negative Concord expressions. In this control sentence, LD-scrambling of even one argument is degraded, as shown by the ?? judgment. Modulo this, if both arguments are scrambled a sharp contrast is reported: the Minimality violating configuration in (7b) is much worse than (7a), which obeys Minimality. This is surprising, given that either order is equally acceptable with multiple LD-scrambling of non-negative arguments as in (3). Contrasts which may be parallel to (3) versus (6) have been reported for Japanese LD-scrambling as well: relative order of arguments is typically free for multiple LD-scrambled arguments (8), but if the scrambled arguments are *wh*-expressions, only the Minimality obeying order is allowed (9). The presence of any locality effects in scrambling argues against a base-generation account such as BT's. But the inconsistent nature of locality in scrambling is problematic for standard leftward movement analyses as well.

I explore a relativized feature-based solution, within the theory of Minimality of Rizzi 2005. Rizzi proposed a more fine-grained definition of structural type, rather than a simple A/A'/head distinction. He argues that structural type corresponds to four superclasses of features: 1) **phi-features** 2) **Quantificational A' features** (*Wh*, *Neg*, *measure*, *focus*...) 3) **Modifier A' features** (*evaluative*, *epistemic*, *Neg*, *frequency*, *manner*...) and 4) **categorical features** (*V*, *N*, etc.). On this view, a movement dependency between X and Y is licensed only if there is no intervener Z such that Z structurally intervenes between X and Y (by *c-command*), and Z and X bear features from the same class. The ungrammaticality of (7b) and (9b) is due to the fact that both scrambling target positions bear a feature from the Quantificational class (*Neg* or *WH*). Similarly, a *c-commanding* adjunct causes a Minimality effect in adjunct scrambling, because both intervener and target bear Modifier features. But what features are involved with scrambling of "plain" arguments? All arguments bear phi-features, but phi-features are relevant only for movement into a phi-position. One possibility is that scrambling is triggered by the need to check an uninterpretable feature, but the feature in question is not a member of any of the relevant structural types (i.e., is not defined for structural type). This is similar to the solution of Rizzi 2005 for the fact that topicalization in Italian does not induce Minimality effects: Rizzi proposes that the [+topic] feature is not defined for structural type, and therefore does not interact in Minimality. If this is true, then we expect to see Minimality effects with A'-scrambled expressions *only* in those cases where the scrambled expressions bear some additional feature belonging to one of the above A'-classes above.

The analysis allows us to explain the now you see them, now you don't character of Minimality effects in scrambling. The facts argue against a base-generated view of scrambling, and provide additional support for Rizzi's feature taxonomy.

¹ Grammaticality judgments on Russian sentences not listed with a source are due to: Aleksandra Galambos, Kirill Gerasimov, Marija Goretskaja, Aleksey Malyutin, Galina Malyutina, Aleksandra Pavlova, and Anton Polesskij.

- (1) Sobaku₁ ty rad [čto oni zaveli t₁]?
dog.ACC you happy that they got
'Are you happy that they got a dog?' (Attested example)
- (2) Ty musor₁ slyšala [kogda uvozili t₁]?
You trash.ACC heard when carried.away.PL
'Did you hear when they carried away the trash?' (Zemskaja 1973)
- (3) a. TY₁ menja₂ vižu [čto t₁ ljubiš' t₂]!
you.NOM me.ACC see.1SG that love.2SG
'I see that you love me!' (Zemskaja 1973)
- b. MENJA₂ ty₁ vižu [čto t₁ ljubiš' t₂]!
me.ACC you.NOM see.1SG that love.2SG
'I see that you love me!'
- (4) a. Tuda₁ ja ne znaju [kak idti t₁].
to.there I not know.1SG how to.go
'I don't know how to go there.' (Zemskaja 1973)
- b. Bystro₁ ja ne znaju [gde možno fotki t₁ napečatat']
Quickly I not know.1SG where possible photographs to.print
'I don't know where photographs can be printed quickly'
- (5) Ja bystro₁ xoču [čtoby ona (*často) t₁ zavodilas']
I quickly want [that I 3.FEM (often) started.up]
'I want it [e.g., a car] to (often) start up quickly.'
- (6) ?? Nikto₁ vižu [čto t₁ ne običaet nikogo.]
no one.NOM see.1SG that NEG bother.3SG no one.ACC
'I see that no one is bothering anyone.'
- (7) a. ?? Nikto₁ nikogo₂ vižu [čto t₁ ne običaet t₂]!
no one.NOM no one.ACC see.1SG that not bother.3SG
'I see that no one is bothering anyone.'
- b. *Nikogo₂ nikto₁ vižu [čto t₁ ne običaet t₂]!
no one.ACC no one.NOM see.1SG that not bother.3SG
'I see that no one is bothering anyone.'
- (8) a. John-ni₁ sono hon-o₂ [Bill-ga [Mary-ga t₁ t₂ watasita to] itta].
John-DAT that book-ACC Bill-NOM Mary-NOM handed that said
'Bill said that Mary handed John that book.'
- b. Sono hon-o₂ John-ni₁ [Bill-ga [Mary-ga t₁ t₂ watasita to] itta].
That book-ACC John-DAT Bill-NOM Mary-NOM handed that said
'Bill said that Mary handed John that book.' (Bošković & Takahashi 1998)
- (9) a. Dare-ni₁ nani-o₂ [John-ga [Tanaka-sensee-ga t₁ t₂ yomaseta to] itta no]?
who-DAT what-ACC J.-NOM T.-teacher-NOM read-CAUS that said Q
'Who did John say Professor Tanaka made read what?'
- b. *Nani-o₂ dare-ni₁ [John-ga [Tanaka-sensee-ga t₁ t₂ yomaseta to] itta no]?
What-ACC who-DAT J.-NOM T.-teacher-NOM read-CAUS that said Q
'Who did John say Professor Tanaka made read what?' (Richards 2001)

Selected Bibliography

- Bošković, Željko, and Daiko Takahashi. 1998. Scrambling and Last Resort. *Linguistic Inquiry* 29:347-366.
- Rizzi, Luigi. 2005. Locality and left periphery. *Structures and Beyond: Volume 3: The Cartography of Syntactic Structures*, Adriana Belletti, ed. Oxford: Oxford University Press.
- Zemskaja, E. A. 1973. O nekotoryx spetsifičeskix čertax porjadka slov v razgovornoj reči (On several distinctive features of word order in spoken language). In *Russkaja razgovornaja reč' (Russian spoken language)*, ed. E. A. Zemskaja. Moscow: Nauka.