PPs of Different Sizes

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Introduction. It has been proposed in the literature (Koopman 2000, den Dikken 2006, Svenonius to appear, among others), that PPs have a complex structure, perhaps even a full clausal structure similar to CP (Bošković 2004, Noonan 2006). In this paper I examine three diagnostics of PP-internal functional structure across three Slavic languages (Serbo-Croatian, Russian, and Czech). Interestingly, the languages vary in their behavior on these diagnostics, suggesting that languages have different amounts of functional structure in PPs (cf. Wurmbrand (2008) on VP and Bošković (2008) on DP/NP).

Quantifier float. Bošković (2004) uses the possibility of quantifier float internal to PPs as an argument for additional functional structure in PPs. All the three languages discussed here allow quantifier float in the clausal domain, but differ with respect to the availability of quantifier float in PPs. Russian and Czech pattern together ((1)-(2)) disallowing quantifier float in PPs. However, Serbo-Croatian (3) permits quantifier float in PPs. The data in (1-3) may be indicative of two things: 1) there is no structural position for movement; 2) there is no movement possible. I suggest that PPs in Russian and Czech are smaller than CPs, unlike Serbo-Croatian where PPs have a CP-like structure.

Binding facts. It is well-known that in many languages the complementarity between a pronoun and an anaphor breaks down in PPs (Reinhart and Reuland 1993). This can be taken as an indication of additional functional structure in PPs, such that the object of the preposition is not necessarily local to the clausemate subject (Hestvik 1990, Lee-Shoenfeld 2008). The three Slavic languages under consideration vary with regards to this diagnostic. Russian (4) and Czech (5) disallow a bound variable reading of pronouns, while this is acceptable in Serbo-Croatian (6). Russian and Czech behave as if their PPs do not constitute a separate binding domain, whereas Serbo-Croatian PPs constitute a separate binding domain, thus allowing bound variable pronouns in PPs. These facts are consistent with my hypothesis about different sizes of PPs: Serbo-Croatian PPs have a full clausal structure, in contrast to Russian and Czech PPs which have a smaller structure.

Measure phrases (MP). Languages differ with respect to the availability of measure phrases in adjectival constructions (Snyder 1995). Russian and Czech cannot have a MP in AP (7a-b) but use a different strategy – MPs are introduced by PPs (8 a-b). Serbo-Croatian, on the other hand, can have MPs in AP (9). Surprisingly, the three languages exhibit three patterns with respect to possibility of MPs in PPs. It was pointed out by den Dikken (2006) that MPs can refer either to location or direction, as in (10). (10) is ambiguous. It can mean either that the ball’s path was at a height of 10 meters above the fence (Place) or that the end location of the ball was 10 meters at the far side of the fence (Path). Den Dikken proposes a structural account for this asymmetry, tying the readings to different structural positions (scopes) of the modifiers in an articulated PP structure. Interestingly, Serbo-Croatian (11 a-b) allows two types of MPs in PPs, similarly to Dutch and English discussed by den Dikken. Czech allows MPs in both directional (12) and locational PPs (13). Russian does not allow MPs in either type of PP; MPs are always introduced with the help of another PP, as in (14-15). The last difference, the possibility of MPs in PPs, can be also accounted for by appealing to the idea that PPs have different sizes in the three languages. In Serbo-Croatian PPs have the most full-fledged structure, similar to that of CPs, whereas Russian and Czech PPs are smaller than CPs. The difference between Russian and Czech with respect to MP in PPs can be explained by suggesting that Russian PPs are even smaller than Czech PPs, i.e. there is no structural position available for MP in PPs in Russian, while there is one position for MP in Czech.

Conclusion. In this paper I argue that PPs have different amounts of functional structure in the three Slavic languages discussed. I support my hypothesis with data on the behavior of PPs with respect to quantifier float, binding, and MP. Further support for the complex structure of PPs comes from studies of Germanic languages (Koopman 2000, van Riemsdijk & Huybregts 2001, den Dikken 2006): they can
have both types of MPs in PPs, show pronoun-anaphor non-complementarity and allow quantifier float internal to PP (Bošković 2004).

**Data**

(1) *Ivan prošol v dol’ rek vsex.
Ivan walked along rivers all

(2) *Honza se podíval do barů všech.
John refl looked into bars all

(3) Plovili smo niz rek sve.
swam are down rivers all

(4) Ivan, položil ružjo vozle sebja/*nego,.
Ivan put gun near self/ him

(5) Marie, položila ten revolver vedle sebe/*nii,.
Maria put this gun near self/ her

(6) Jovan je video psa blizu sebe/ ?njegu,.
Jovan is saw dog near self/ him

(7) a. *Ivan dva santimetra više Marii.
Ivan two centimeters taller Maria
b. *Marie je dva cm viší než Honza.
Maria is two cm taller than John

(8) a. Ivan na dva santimetra vyši Marii.
Ivan on two centimeters taller Maria
b. Marie je o dva cm viší než Honza.
Maria is by two cm taller than Honza

(9) Maria je dva sm viša od Milana.
Maria is two sm taller from Milan

(10) John threw the ball ten meters over the fence. (ambiguous)
(11) a. Jovan je bacio loptu 10 m iznad ograde.
Jovan is threw ball 10 m over fence
b. Jovan je bacio loptu 10 m preko ograde.
Jovan is threw ball 10 m over fence

(12) Honza hodil ten balón 10 metrů za plot.
Honza threw this ball 10 meters behind fence

(13) Honza hodil ten balón 10 metrů přes plot.
Honza threw this ball 10 meters over fence

(14) a. *Ivan brosil mjač 10 metrov čerez zabor.
Ivan threw ball 10 meters over fence
b. Ivan brosil mjač na 10 metrov črez zabor.
Ivan threw ball on 10 meters over fence

(15) a. *Ivan podbrosil mjač 10 metrov nad zaborom.
Ivan threw ball on 10 meters over fence
b. Ivan podbrosil mjač na 10 metrov nad zaborom.
Ivan threw ball on 10 meters over fence