

IN SOVIET RUSSIA, ALCOHOL IS DEPENDENT ON YOU

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Introduction

Many languages can mark indefinite DPs as semantically **dependent** on some plurality: for every member of the plurality, the witness of the indefinite is chosen separately. In Russian, this is done with the preposition *po*, which is licensed by both plural noun phrases and the universal quantifier *every*.

- (1) a. Mal'čiki vypili po butylke. b. Každýj mal'čik vypil po butylke.
boys drank PO bottle every boy drank PO bottle
'The boys drank a bottle each.' 'Every boy drank a bottle.'

Two approaches to similar dependency markers in other languages:

1. Dependent indefinites are marked for low scope wrt a quantificational operator: the silent distributivity operator in (1a) and the universal quantifier in (1b). (Brasoveanu & Farkas 2011; Henderson 2014)
2. Dependent indefinites somehow contribute distributive force, which in some fashion ends up being redundant when combined with an overt universal quantifier. (Balusu 2006; Cable 2014; Kuhn 2017)

Today: Russian *po* differs from other dependency markers in a puzzling way.

Homogeneity and Russian *po*

Plural predication is trivalent, in that sentences with definite plurals (and their negations) are sometimes neither true nor false. This phenomenon is known as **homogeneity**.

- (2) a. The girls danced. b. The girls didn't dance.
true iff all the girls danced. true iff none of the girls danced.
false iff none did. false iff all of them did.
undef. iff some, but not all did. undef. iff some, but not all did.

Explicit Quantification Removes Homogeneity

This trivalence disappears with over markers of distributivity such as *each* (and indeed overt quantifiers in general).

- (3) Context: *Some, but not all of the boys ate a sandwich.*
a. The boys ate a sandwich. **undef.**
b. The boys each ate a sandwich. **false**

Homogeneity also disappears with dependency markers in English (adnominal *each*) and Hungarian (reduplicated numerals).

- (4) Context: *At least one of the boys neither ate a sandwich of his own nor shared.*
a. The boys ate a sandwich each. **false**
b. ?The boys didn't eat a sandwich each. **true**

An additional test is provided by embedding under *doubt*:

- (5) a. I doubt that the girls danced. \rightsquigarrow I think that no girl danced.
b. I doubt that the girls all danced. \rightsquigarrow I think at least one girl didn't dance.

Again, English and Hungarian dependent indefinites pass as non-homogeneous:

- (6) I doubt that the boys ate one sandwich each.
 \rightsquigarrow I think at least one either shared or didn't eat a sandwich.
 $\not\rightsquigarrow$ I think that no boy ate a sandwich of his own.

Russian *po* Doesn't Remove Homogeneity

- (7) a. ??Mal'čiki ne polučili po knige. b. Mal'čiki ne každýj polučili (po) knige.
boys not received PO book boys not each received (PO) book
'The boys didn't get a book.' 'The boys didn't all get a book.'
 \rightsquigarrow None of them got a book.
- (8) Ja ne dumaju / somnevajus', čto mal'čiki prinesli po cvetku.
I not think / doubt that boys brought PO flower
'I doubt that the boys brought a flower.' \rightsquigarrow I think no boy brought a flower.

Suggests: English and Hungarian dependent indefinites have distributive force, but Russian *po* doesn't.

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Distributivity in Russian

There appears to be no silent distributivity operator in Russian (Pereltsvaig 2008)!

- (9) Mal'čiki pročitali knigu.
boys read book
'There is a book that the boys read.' \rightsquigarrow Same book for all boys.

Russian has a series of indefinites that is marked for low scope wrt a quantificational operator. Those indefinites are not licensed by a plain definite plural (Yanovich 2005, Pereltsvaig 2008).

- (10) Mal'čiki *(každyj) pročitali kakuju-nibud' knigu.
boys each read which-NIBUD' book
'The boys each read some book.'

This cannot be a blocking effect (*po* vs null): *po* can only associate with direct objects and (some) subjects, not with indirect objects, but silent distributivity wrt indirect objects is also unavailable.

- (11) Devočki pomogli (*po) mal'čiku.
girls helped PO boy.DAT
'The girls helped a boy.' \rightsquigarrow Same boy.

Suggests: Russian *po* must have distributive force after all, but unlike other dependency markers doesn't remove homogeneity despite being overt.

Independent Dependency

Uttered by a speaker who just asked about the same thing five times in a row:

- (12) Ty ne serdišsja, čto po pjat' raz sprašivaju?
you.SG not be.angry.PRES.2SG that PO five times ask.PRES.1SG
'You're not cross with me for asking five times?'

There appears to be no plurality for *po* to be dependent on, so why is it there?

Hypothesis: This is actually a sort of hyperbole. The speaker is (hyperbolically) saying that they *habitually* ask five times about things. Cf. Austrian German:

- (13) Tschujdigen, dass i immer fünf māj fråg.

Conclusions and Directions

Russian *po* is a curious dependency marker that appears to be unlike the others that have been described in sufficient detail:

- It does not remove homogeneity.
- It is licensed by definite plurals and universal quantifiers.
- The language has no silent distributivity.

Suggests: *po*-phrases have distributive force, but it must be formulated in such a way as to be vacuous when there is overt universal quantification.

Outlook: Possibly doable in a way similar to Kuhn 2017 (Plural DRT), but there are compositionality problems.

References

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