

Setting the stage

- an elegant pattern noticed by Anna Szabolcsi (Szabolcsi 2002) as far as the interpretation of disjunction under negation is concerned

Setting the stage: terminology

- De Morgan's laws
 - $\neg(p \vee q) = \neg p \wedge \neg q$
 - $\neg(p \wedge q) = \neg p \vee \neg q$
- *neither_nor* reading = conjunctive reading = De Morganic reading = narrow-scope reading
- disjunctive reading = wide-scope reading \neq exclusive disjunction XOR (1a), which behaves differently w.r.t. De Morgan's laws (1b):

- (1) a. $p \text{ XOR } q = (p \vee q) \wedge \neg(p \wedge q)$
 b. $\neg((p \vee q) \wedge \neg(p \wedge q)) = ((\neg p \wedge \neg q) \vee (p \wedge q))$

Crosslinguistic picture (Szabolcsi 2002)

Some logically well-behaved languages:

- (2) James doesn't speak Russian or German.
 a. James speaks neither.
 b. Either James doesn't speak Russian or he doesn't speak German.
- (3) Jan spreekt geen Russisch of Duits.
 John speaks NEG Russian or German
 see above
- (4) Es nestrādāju skolā vai universitātē.
 I not.work school.LOC or university.LOC
 'I don't work at a school or university.'
- some other English-type languages
 - German, Slovenian (Marko Hladnik, p.c.), Romanian, etc.

In other languages the relevant De Morgan's law doesn't hold:

- (5) Mari nem járt hokira vagy algebrára
 Mari not went hockey-to or algebra-to
 \neq 'Mary didn't take hockey and didn't take algebra.' 'Either Mary didn't take hockey or she didn't take algebra.' [Hungarian]
- (6) On ne govorit po-russki ili po-nemecki
 He NEG speaks Russian or German
 'He doesn't speak Russian or German.' [Russian]
- Hungarian-type languages
 - Polish, Serbo-Croatian, Japanese (Szabolcsi 2002); French (Spector 2014)

Aims for today

focusing on Russian,

- spot potential counterexamples and try to see how they fit Szabolcsi's picture
- make a case for a more prominent role of syntax for positive polarity

Disjunction under negation crosslinguistically (Szabolcsi 2002)

- Hungarian-type languages
 - Russian, Serbo-Croatian, Japanese (Szabolcsi 2002), French, Italian (Spector 2014)
 - * **disjunction markers (*or*-words) are positive polarity items**
- English-type languages
 - German, Dutch, Slovenian (Marko Hladnik, p.c.), Latvian

The unavailability of De Morganic readings is directly related to the inability of disjunction words in question to scope under sentential negation

[Dutch]

Negative and positive polarity: *some* and *any*

- (7) a. James speaks some foreign languages.
 b. # James doesn't speak some foreign languages.
 c. James doesn't speak any foreign languages.

[Latvian]

NB: (b)-sentence is only bad on the $\neg > \exists$ reading:

(8) James doesn't speak some foreign languages.

→ there is some foreign languages that James doesn't speak

Main properties of *some*

Anti-licensing

inability to be interpreted in the scope of a clausemate negation

Rescuing

an even number of negative operators lifts the effect:

(9) James should **not** travel if he does **not** speak some foreign languages.

Locality of anti-licensing

some can scope under negation if that negation is sufficiently far away:

(10) I don't think [Mary knows someone here]

Diagnosing PPI-disjunctions: Hungarian *vagy*

- If Szabolcsi (2002) is right about the connection between disjunction and PPI-hood, we expect *vagy* in Hungarian to pattern analogously to *some* in English
- Szabolcsi (2002) shows that this prediction (broadly) holds

Hungarian *vagy*: locality of anti-licensing

(11) Miért van itt olyan hideg?

why is here so cold

'Why is it so cold here?'

(12) Nem csukt-uk be az ajtó-t vagy az ablak-ot.

not closed-1PL in the door-ACC or the window-ACC

'We didn't close the door or the window.'

[$\vee > \neg$]

(13) Nem hisz-em, hogy becsukt-uk volna az ajtó-t vagy az ablak-ot.

not think-1SG that in-closed-1PL AUX the door-ACC or the window-ACC

'I don't think we closed the door or the window'

[$\neg > \vee$]

Hungarian *vagy*: rescuing

(14) Nem hiszem, hogy János ne evett vagy dohányzott volna.

not think-1SG that John not ate or smoked AUX

'I don't think John didn't eat or smoke'

[$\neg > \neg > \vee$]

Types of PPI-disjunctions (Spector 2014)

- local
- global (complex/discontinuous disjunctions like *soit...soit* in French)

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Approaches to positive polarity

- current consensus seems to be that the phenomenon is inherently semantic (see Giannakidou 2011 for an overview)
 - reference-based theories (e.g. Giannakidou 2011)
 - opposition-based theories (e.g. Seuren & Jaspers 2014)
 - scalar analyses (e.g. Chierchia, Fox & Spector 2012)
- what I want to show is that the role of syntax isn't restricted to defining the locality domain for anti-licensing

Back to Russian

Distilled into a generalisation, Russian monoclausal sentences involving *and* or *or* word under negation

- are acceptable, and
- have no conjunctive reading

That is to say, the following Russian sentence

- (15) On ne govorit po-russki ili po-nemecki
He NEG speaks Russian or German
'He doesn't speak Russian or German.'

only has one clear reading:

- (16) Either he doesn't speak Russian or he doesn't speak German.

Back to Russian: expressing conjunctive readings

dedicated narrow-scope discontinuous connective *ni_ni* 'nor':

- (17) On ne govorit ni po-russki ni po-nemecki
He NEG speaks nor Russian nor German
'He doesn't speak Russian or German.'

= he speaks neither

Why is *ili* 'or' bad under *ne* 'not'?

a competition/blocking/opposition-based analysis looks plausible:

- the existence of *ni_ni* 'nor' blocks the more general connective *ili* (cf. Horn 1989; Seuren & Jaspers 2014)

Locality of anti-licensing: secondary predication

Just like in Hungarian (Szabolcsi 2002), secondary predication in Russian is a separate domain

- (18) Ja ne sčitaju pivo vrednym ili protivnym
I not consider beer harmful or gross
'I do not consider beer harmful or gross.'

- (19) Ja ne videl Vanju v šljape ili parike
I not saw Vanya in hat or wig
'I haven't seen Vanya in a hat or a wig.'

- (20) Ja ne jem mjaso syrym ili peregotovlennym
I not eat meat raw or overcooked
'I do not eat meat raw or overcooked.'

- only the conjunctive reading is available

Locality of anti-licensing: unexpected conjunctive readings

But so is primary predication with an overt copula:

- (21) on ne byl / budet vorom ili mošennikom
he NEG be.PST:M:SG / be.FUT.SG thief or crook
'He {wasn't/won't be} a thief or a crook.'

- only the conjunctive reading
- biclausal analyses of primary predication relatively implausible
- not predicted by Szabolcsi but not a real counterexample, since what is needed is a more precise definition of the locality domain in question

Locality of anti-licensing: conjunctive reading and present tense

- no overt copula in present tense
- to express the conjunctive reading, a conjunction of negations can be used:

- (22) *on ne vor ili mošennik
he NEG thief or crook
(‘He isn’t a thief or a crook.’)
- (23) on ne vor i ne mošennik
he NEG thief and NEG crook
(‘He isn’t a thief or a crook.’)
- absence of conjunctive reading predicted by the PPI story;
 - **absence of disjunctive reading not predicted!**
 - no overt copula in present tense
 - if one disjunct is modified with an indefinite, the copulaless sentence becomes acceptable:
- (24) on ne vor ili kakoj-nibud’ mošennik
he not thief or some crook
- (25) on ne kakoj-nibud’ vor ili mošennik
he not some thief or crook
(‘He isn’t some thief of a crook.’)
- and only has the conjunctive reading
 - the indefinite adds a depreciative or pejorative flavour to the sentence
 - not all indefinite series in Russian are suited for this, but the *-to* and *-nibud’* indefinites seem OK
- (26) on ne vor ili mošennik kakoj-to
he not thief or some crook
- (27) on ne vor kakoj-to ili mošennik
he not some thief or crook
(‘He isn’t some thief or crook.’)
- order ‘NP-indefinite’ seems to be relevant:
 - the *-to*-indefinites do not precede the NP they modify unless they are followed by the adverbial *tam* ‘there’
- (28) on ne vor ili kakoj-to *(tam) mošennik
he not thief or some *(there) crook

- (29) on ne kakoj-to *(tam) vor ili mošennik
he not some *(there) thief or crook

Order and scope: unexpected conjunctive readings

Consider the contrast between the *in-situ* and fronted disjunction:

- (30) On ne govorit po-russki ili po-nemecki
He NEG speaks Russian or German
(‘He doesn’t speak Russian or German.’) [v > ¬]
- (31) [Po-russki ili po-nemecki] on ne govorit
Russian or German he not speaks
(‘Russian or German, he doesn’t speak.’) [¬ > v]

overt scope paradox:

- fronting the disjunction should change scope relations, yet the disjunction scopes under the negation,
- which it couldn’t do *in situ*
- not predicted by any approach to PPI-hood known to me

No competition between fronted *ili* ‘or’ and *ni_ni* ‘nor’:

- (32) [Po-russki ili po-nemecki] on ne govorit
Russian or German he not speaks
(‘Russian or German, he doesn’t speak.’) [¬ > v]
- (33) [Ni po-russki ni po-nemecki] on ne govorit
nor Russian or German he NEG speaks
(‘He doesn’t speak Russian or German.’) [¬ > v]
- problematic for competition/opposition-based analyses

Summary of empirical issues

- unexpected conjunctive readings in past- and future-tense copular clauses
 - can be solved by redefining the relevant locality domain

* but we don't want arbitrariness in that definition

- unexpected lack of disjunctive readings in present-tense copulaless clauses
- unexpected conjunctive readings with fronted disjunction

Implications for purely semantic analyses

- Are fronted disjunctions problematic for semantic theories of PPI-hood?
 - They are, but only if *ne* 'not' in Russian is viewed as the sentential negation operator
 - Less certain otherwise

My idea (very informally)

- *ili* 'or' is a PPI
- PPI-hood should be formulated with reference to syntactic hierarchical relations rather than semantic notions such as downward entailment
 - perhaps akin to Beck's intervention effects? (NB: very tentative)
- both clausal and phrasal disjunction are required (cf. Toosarvandani 2013 for corrective *but*)
- *ne* 'not' isn't sentential negation but is instead licensed by an abstract negation operator OP_{\neg} (cf. Zeijlstra 2004)

Acceptability of disjunction under negation

- So far we've been assuming that (34) was a good sentence of Russian.

(34) On ne govorit po-russki ili po-nemecki
 He NEG speaks Russian or German
 'He doesn't speak Russian or German.' [v > ¬]

- But my informal consultations with Russian-speaking linguists reveal that the sentence is hardly acceptable
- unless there is a prosodic boundary between the two disjuncts

Alternative structure for [v > ¬]

- two clausal disjuncts + ellipsis

(35) [On ne govorit po-russki] ili [~~on ne govorit~~ po-nemecki]
 he not speaks Russian or he not speaks German

- the [v > ¬] interpretation falls out naturally
- prosodic boundary between disjuncts highlights the clausal disjunction structure
- limited acceptability due to
 - reparsing, or
 - problems with recoverability for ellipsis
- there are nice processing experiments to help us decide (Hoeks et al. 2006)

Clausal and phrasal disjunction: copular facts

Phrasal disjunction under predicated *ne* 'not'

(36) * On ne [vor ili mošennik]
 he NEG thief or crook
 ('He isn't a thief or a crook.')

- conjunctive reading is unavailable due to *ili* being a PPI under a very local negation

Clausal disjunction plus ellipsis

(37) * [On ne vor] ili [~~on ne~~ mošennik]
 he NEG thief or he NEG crook
 ('He isn't a thief or a crook.')

- disjunctive reading is also unavailable
 - possibly because the way ellipsis is done in the second disjunct, it cannot be recovered

Clausal and phrasal disjunction: fronted disjunctions

(38) [Po-russki ili po-nemecki] on ne govorit
 Russian or German he not speaks
 'Russian or German, he doesn't speak.' [¬ > v]

(39) LF: OP_{\neg} [Russian or German] he *ne* speaks

- (40) [Po-russki on-ne govorit] ili [po-nemecki on-ne govorit]
 Russian he NEG speaks or German he NEG speaks
 ‘Russian or German, he doesn’t speak.’

Conclusions

- still convinced that Szabolcsi (2002) was right about PPI-status of *ili* ‘or’
- syntax plays a greater role than previously assumed:
 - locality domain for anti-licensing is very flexible
 - most of uncovered unexpected data follow naturally from the dual syntax of disjunction (both phrasal and clausal disjunction being permitted) and divorcing the (semantic) negation operator from its (syntactic) realisation

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