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The exceptive-additive ambiguity

Introduction: In a number of languages one and the same expression can mean "in addition to" and "except for". The ambiguity of this sort exists in Russian, Turkish, English, Hindi etc. The fact that this pattern is so crosslinguistically common suggests that this is not simply a lexical ambiguity. In this paper I will focus on Russian exceptive-additive markers *krome* and *pomimo*. The exceptive reading arises with universal quantifiers and the additive reading is attested with existentials, focus and in questions. Thus, (1) comes with inferences typical for exceptives (Horn 1989, von Fintel 1994): containment (Masha and Anya are girls), negative entailment (Masha and Anya were not there) and domain subtraction (all other girls were there). In (2) and (3) containment and domain subtraction are still present, but instead of the negative entailment there is a positive entailment (Masha and Anya were there). (4) means that Masha talked to Anya and Petya about this.

(1) Na sobranii prisutstvovali vse devočki pomimo/krome Ani i Maši
On meeting present all girls apart from Anya and Masha
'All girls apart from Anya and Masha were at the meeting.'

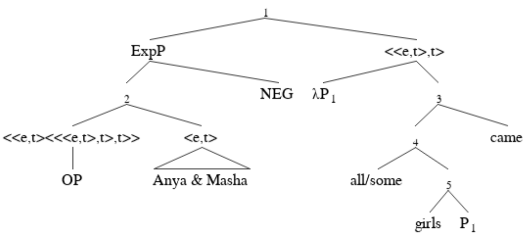
(2) Na sobranii prisutstvovali kakie-to devočki pomimo/krome Ani i Maši
On meeting present some girls apart from Anya and Masha
'There were some girls apart from Anya and Masha at the meeting.'

(3) Kakie devočki krome Ani i Maši prišli?
Which girls apart from Anya and Masha came?
'Which girl apart from Anya came?'

(4) Krome Ani, Masha pogovorla ob etom s $Petej_F$
apart from Anya, Masha talked about this with $Petya_F$
'Apart from Anya, Masha talked about this with $Petya_F$'

In this paper I will focus on the interaction of *krome* and *pomimo* with universal and existential quantifiers. For the exceptive reading, I will adopt von Fintel's (1994) approach to the semantics of exceptives, according to which an exceptive subtracts a set introduced by the DP following the exceptive marker from a domain of a quantifier and adds the leastness condition. Following the existing literature (Gajewski 2008, Hirsch 2016), I will separate the domain restriction step and the leastness condition syntactically. I will show that the ambiguity can be derived if the job of the leastness condition is divided between 2 operators, one of which is negation. Depending on the way the two operators compose the meaning is exceptive or additive.

Analysis: The structure I propose is shown in the tree below. The exceptive phrase undergoes quantifier raising out of its connected position. It leaves a trace of type <e,t>. The trace combines with the head noun via predicate modification. It is bound by the lambda abstractor at LF. The job of *krome/pomimo* is distributed between OP and NEG. Negation can have different types. Depending on its type and the mode of composition with *OP+Anya and Masha* the reading is exceptive or additive. The DP *Anya and Masha* is interpreted as a set {Anya, Masha}.



(5) $[[OP]] = \lambda X_{<e,t>} \lambda M_{<<e,t>t>}: \forall Y\, [Y \cap X \neq \emptyset \rightarrow M(Y)].\ \neg M(\overline{X})$

(6) $[[OP\ Anya\ and\ Masha]] = \lambda M_{<<e,t>t>}: \forall Y [Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow M(Y)].\ \neg M(\overline{\{Anya, Masha\}}$

OP takes a set introduced by its complement as its first argument. Its second argument is the constituent formed by the abstraction. *Krome* quantifies over properties (variables of type <e,t>). It has a condition of well-formedness (presupposition) and the assertive part. Negation can have different semantic types. Depending on its type and the mode of composition with *OP+DP* the resulting denotation for the exceptive phrase is exceptive or additive.

Exceptive meaning with universals Negation has a meaning given in (7) and it combines with *OP+Anya and Masha* via function composition. As a result every occurrence of the variable M in (6) is substituted by a variable of the same type with the opposite polarity. The denotation of the sister of the ExcP is in (9).

(7) $[[NEG_1]] = \lambda Q_{<<e,t>t>} \lambda S_{<e,t>}.\ \neg Q(S)$

(8) $[[OP\ Anya\ and\ Masha\ NEG]]$= by function composition

$\lambda Q\ [[OP\ Anya\ and\ Masha]]\ ([[NEG]](Q))=$

$\lambda Q_{<<e,t>t>}: \forall Y[Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow \neg Q(Y)].\ Q(\overline{\{Anya, Masha\}})]$

(9) $\lambda Y_{<e,t>}. \forall x[x \text{ is a girl } \& \ x \in Y \rightarrow x \text{ was there}]$

The predicted interpretation for the entire sentence is given in (10).

(10) Presupposition: $\forall Y[Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow \exists x[x \text{ is a girl } \& \ x \in Y \ \& \ \neg \ x \text{ was there}]]$

Assertion: $\forall x[x \text{ is a girl } \& \ x \notin \{Anya, Masha\} \rightarrow x \text{ was there}]$

The assertive part is the domain subtraction. The presupposition is equivalent to the leastness condition (von Fintel 1994). It requires that Anya and Masha are girls who came. Since $\{Anya\} \cap \{Anya, Masha\} \neq \emptyset$, it has to be the case that $\exists x[x \text{ is a girl } \& \ x \in \{Anya\} \& \neg \ x \text{ was there}]$. The same goes for Masha.

Additive meaning with existentials: Negation has a higher semantic type and takes OP+Anya and Masha as its argument. As a result, the presuppositional component of OP remains unaffected by negation. The denotation of the sister of the ExcP is in (13).

(11) $[[NEG]] = \lambda P_{<<<e,t>t>t>} \lambda S_{<<e,t>t>}.\ \neg P(S)$

(12) $[[ExcP]] = \lambda M_{<<e,t>t>}: \forall Y[Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow M(Y)].\ M(\overline{\{Anya, Masha\}}$

(13) $\lambda Y_{<e,t>}.\ \exists x[x \text{ is a girl } \& \ x \in Y \ \& \ x \text{ was there}]$

The predicted interpretation for the entire sentence is given in (14).

(14) Presupposition: $\forall Y[Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow \exists x[x \in Y \ \& x \text{ is a girl } \& \ x \text{ was there}]]$

Assertion: $\exists x[x \notin \{Anya, Masha\} \ \& \ x \text{ is a girl } \& \ x \text{ was there}]$

The presupposition is the additivity. It requires that Anya and Masha are girls who came. This is again, because both {Anya} and {Masha} satisfy the domain condition of the universal quantifier over sets. Thus $\exists x[x \in \{Anya\} \ \& x \text{ is a girl } \& \ x \text{ was there}]$ (the same for Masha).

No exceptive meaning with existentials: if (8) applies to (13), the result is a contradiction. This is because leastness is not compatible with existential quantifiers (von Fintel 1994).

(15) Pres: $\forall Y[Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow \neg \exists x[x \text{ is a girl } \& \ x \in Y \ \& \ x \text{ was there}]]$

Assertion: $\exists x[x \text{ is a girl } \& \ x \notin \{Anya, Masha\} \& \ x \text{ was there}]$

Lets take U: the universal set containing every object in the world. Since $U \cap \{Anya, Masha\} \neq \emptyset$ the presupposition requires that there is no girl in the universe that was there. The assertion requires that some girl who is not Anya or Masha was there.

No additive meaning with universals: if (12) applies to (9) the result is ill-formed too.

(16) Pres: $\forall Y[Y \cap \{Anya, Masha\} \neq \emptyset \rightarrow \forall x[x \in Y \ \& \ x \text{ is a girl } \rightarrow x \text{ was there}]]$

$$\text{Assertion: } \forall x[x \text{ is a girl } \& \ x \notin \{\text{Anya, Masha}\} \rightarrow x \text{ was there}]$$

Again because of U, the presupposition requires that every girl was there (including A and M). The presupposition is stronger than the assertion, this is why this reading is not attested.