Negative Raising and Focus-Sensitivity: Evidence from Mandarin
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It is pointed out by Rooth (1996) that treating negation as a focus-sensitive (FS) operator (Jackendoff 1975) is insufficient in dealing with statements only hinting at partial answers. Beaver & Clark (2008) classify negation as a Quasi-associated operator, which evokes alternatives congruent with the Current Question and differs from conventional FS operators (e.g. only) w.r.t. the defeasibility of existential inference. However, how the quasi-FS reading on negation is gathered or eliminated is a mystery. In this project, I build up a bridge between the analyses of FS and Negative Raising (NR) based on Mandarin data, and argue that quasi-FS reading of contrary negation is influenced by the excluded middle (EM) presupposition and the scope interaction with the Floating A (Beaver & Krahmer 2001).

Basic derivation of (non-)FS Rooth (1996) indicates that there are two possible structures related with focus interpretation, (1): given that C is an alternative set (ALT) with a structure identical to the sister of ~ C, the ALT constituent in (1a) contains negation while the one in (1b) doesn’t.
(1) a. Free reading with narrow negation scope: \[[\text{NEG }\ldots]\] ~ C
b. Bound reading with wide negation scope: \[[\text{NEG }\ldots]\] ~ C \quad \text{(Cf. Herberger 2000)}
Gajewski (2007) assumes that (i) NR reading arises if there exists an EM, i.e., assertion (with non-NR form) and EM together entail NR reading; and (ii) non-NR reading is generated when EM is canceled by $A_{cl,p}$. I adopt this theory and apply it to the analysis of focus. In Scenario 1, I assume that a negative sentence whose NR form conveys contradictory opposition presupposes EM, and that quasi-FS reading arises when EM is canceled by A (indicated by the strike), (2).
(2) a. John doesn’t like Mary. (Unmarked reading: ‘I dislikes M’) Assertion: $m \not\in \lambda x. L(j,x)$ Presupposition: $m \in \lambda x. L(j,x) \vee m \in \lambda x. \neg L(j,x)$
b. John doesn’t like Mary. (FS reading: ‘It isn’t M whom J likes’) Assertion: $m \not\in \lambda x. L(j,x)$ Presupposition: $m \in \lambda x. L(j,x) \vee m \in \lambda x. \neg L(j,x)$

In Scenario 2, for a sentence whose NR form conveys contradictory opposition (viz. NR and non-NR readings are logically equivalent), quasi-FS reading is excluded if the existential inference “someone is going” has been suspected in the common ground, (3), or otherwise quasi-FS reading arises, (4).
(3) Q: “Who is going to have dinner with the speaker?” \quad \text{Rooth (1996)}
A: “I don’t know, I am not going.” (Non-FS reading preferred)
(4) John didn’t invite Sue. (Quasi-FS reading preferred)

Scope interaction of contrary negation and A It isn’t easy to work the derivation out merely based on English data since negation can only be realized as not (or n’t). Fortunately, Mandarin negative adverbials bu and mei provide us with a clear contrast: mei has a wider scope than bu (as illustrated by their distributions w.r.t. aspectual markers: mei can co-occur with all aspectual markers except the higher perfective –le, while bu cannot co-occur with any (5).) Hence, adopting the Neo-Davisonian Event Semantics (Kratzer 1996) and placing A in the aspectual system, I conjecture that mei can scope over A while bu must be embedded inside it.
(5) a. Wo mei dai-zhe/ dai-guol dai-(*le)/ zai dai maozi. 1sg NEG wear-DUR/ wear-EXP/ wear-PERF/ DUR wear hat

This hypothesis is supported by four facts. (i) Obligatory (Non-)NR readings: mei receives non-NR reading while bu must be locally interpreted as NR, (6). (ii) Generic reading: negative sentences with bu can have generic reading, while those with mei cannot. (Note that the generic operator GEN also belongs to the aspectual system (Chierchia 1995). (7/8)). (iii) Presupposition defeasibility: the soft presupposition of the sentence embedded under mei is defeasible, while the one under bu is not, (9).
(10) illustrates that even with a false presupposition, a sentence is utterable when there is a negative scoping over A. In addition, bu behaves the same way as mei iff it gets a wide scope by attaching to a functional element such as the focus operator shi ‘be’ or the outer modal hui ‘will’. This accords with (iv) the distribution of (non-)FS readings: mei (bu-you ‘not-have’), bu-shi ‘not-be’ and bu-hui ‘not-will’ are quasi-FS, while the bare bu must be non-FS, (11). Hence it is plausible to assume that quasi-FS readings on bu in (11) should be attributed to A (encoded in the lexicon of you/shi/hui) rather than bu itself, and that negation (whose NR form conveys contrary opposition) gets quasi-FS reading iff it scopes over A at LF. This is because A prevents negation from lowering to the VP tier so that negation cannot appear inside the ALT structure.

(6) Wo mei/ #bu xiang likai zhei, but I don’t feel bad if you ask me to leave.
1sg NEG/ NEG want leave here
‘I don’t have the desire of leaving here, but I don’t feel bad if you ask me to leave.’
# ‘I have the desire of not-leaving here, but I don’t feel bad if you ask me to leave.’

(7) Yuehan bu chi niurou
John NEG eat beef
‘J has the habit of not-eating beef.’
# J doesn’t have the habit of eating beef.’

b. GEN s [Restriction beef’ (x) \( \wedge C (j, x, s) \) ] [Scope NEG [eat’ (j, x, s) ] ]

(9) Yuehan mei/ #bu xihuan Mali, and he even doesn’t know Mary.
John NEG/NEG like Mary,
‘John doesn’t like, and even he doesn’t know Mary.’
# ‘John dislikes Mary, and even he doesn’t know Mary.’

(10) a. \(~ A(p) \) \rightarrow (T) b. \(~ p \) \rightarrow (N)
A \rightarrow p \rightarrow (N)

(11) a. Yuehan mei xihuan Mali_f.
John NEG like Mary
Intended: ‘M isn’t the person who J likes.’
Intended: ‘M is the person who J dislikes.’
c. Yuehan bu -shi xihuan Mali_f.
John NEG -FOC like Mary
Intended: ‘It isn’t the case that J likes M_f.’
d. Yuehan bu -hui xihuan Mali_f.
John NEG -MOD like Mary
Intended: ‘It isn’t possible that J likes M_f.’

What’s more, given that the interpretational difference in Scenario 1 results from scope interaction between contrary negation and A, I assume that the Tripartite Structure (TS) can have multiple tiers, (12/13). This analysis presumably applies to other operators as well.

TS: NEG \( \langle \lambda OP [OP \langle \lambda x.P(x), a \rangle], A \rangle \)

TS: A\( \langle \lambda OP [OP \langle \lambda x.P(x), a \rangle], \rangle, \rangle \), NEG

Conclusions First, I show that contradictory negation is interpreted as non-FS iff the existential inference has been suspected and as quasi-FS otherwise. Second, I argue that (non-)FS readings on negation can be analyzed along the same line as (non-)NR: negation whose NR form conveys contrary opposition presupposes EM; quasi-FS arises iff negation scopes over the Flouting A (which cancels the EM presupposition), and non-FS otherwise.

Selected Reference