

Argument-Adjunct Asymmetries in Rhetorical Questions

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- Two contrasting views about where certain semantic well-formedness conditions such as NPI-licensing and semantic islands like negative islands apply:

A: the level of LF

B: a level of *post*-LF, which retains structure but permits certain kinds of logical inferences.

- Han (1997) on NPI-licensing in rhetorical questions:

- (1) a. Positive information seeking -questions do not license strong NPIs:
Who lifted a finger to help Sam?
- b. Positive Rhetorical questions license strong NPIs:
After all, who lifted a finger to help Sam?
- c. Negative questions license NPIs:
Who didn't lift a finger to help Sam?
- d. Negative Rhetorical questions do not license NPIs:
After all, who didn't lift a finger to help Sam?

- I provide support for View B by using data from certain asymmetries in extraction in rhetorical questions.

1 What are Rhetorical Questions?

Rhetorical questions vs. Information seeking questions:

- Information seeking questions: A person who asks an information seeking question expects an answer.
 - Rhetorical questions do not solicit an answer.
 - Rhetorical questions assert that the extension of the question denotation is empty.
- Ambiguity: In principle, a given question can be interpreted as either an information seeking question or as a rhetorical question. However, intonation can be used to disambiguate whether a given question is to be interpreted as an information seeking question or as a rhetorical question.

- (2) a. information seeking question:
A: Who has been to Moose Jaw?
B: Rossy and Kika have been to Moose Jaw.
- b. rhetorical question:
A: Have you (ever) been to Moose Jaw?
B: Of course not. After all, who has been to Moose Jaw?
(= Of course not. No one has ever been to Moose Jaw)

Other ways of disambiguation are provided by

(i) NPI licensing (test due to Sadock 1971, 1974)

Ordinary questions cannot license 'strong' NPIs e.g. *give a damn, at all, in weeks, a bit, budge an inch, a red cent, lift a finger, until* etc. (cf. Zwarts 1996).

- (3) a. * Who has given Miguel a red cent?
b. * Have you given Miguel a red cent?

Rhetorical questions can license 'strong' NPIs.

- (4) a. Who has (ever) given Miguel a red cent?
b. Have you (ever) given Miguel a red cent?

(ii) No long distance extraction of adjuncts in rhetorical questions.

1.1 Actual Derivation

- Setting the question denotation to ϕ

This approach is suggested but not quite worked out in Ladusaw (1980) (also see Gutiérrez-Rexach (1997)).

- (5) a. What did John eat?
b. Question denotation = $\lambda p.\exists x.[p = eat(j, x) \wedge \sim p]$
c. Question denotation = ϕ
d. $\neg\exists x.eat(j, x)$

- Han (1997)'s approach: Since a rhetorical question asserts that the set of individuals that satisfies the question is empty, she proposes that the *wh*-phrase is mapped onto a negative quantifier which is interpreted with the scope of the *wh*-phrase.

- (6) a. What_i did John eat t_i?
b. Nothing_i did John eat t_i
c. $(\lambda X.\neg\exists x.(thing'(x) \wedge \sim X(x)))(\lambda x_i.eat'(j, x_i))$
d. $\neg\exists x.(thing'(x) \wedge eat'(j, x))$

The two approaches yield essentially the same LFs - both LFs have a wide scope negation.

2 Argument-Adjunct asymmetries

- Long distance extraction of arguments *is* possible (contra Han & Siegel 1996 §4).

- (7) a. Who_i has Sven (ever) said [t_i was intelligent]?
- = $\neg\exists x$ said(sven, intelligent(x))
 \neq said(sven, $\neg\exists x$ intelligent(x))
- b. What_i has Max (ever) believed [that Matt does well t_i]?
- = $\neg\exists x$ believed(max, does-well(matt, x))
 \neq believed(max, $\neg\exists x$ does-well(matt, x))
- c. [With what job]_i has Mina (ever) thought that [you should be satisfied t_i]?
- = $\neg\exists x$ thought(mina, should(be-satisfied-with(you, x)))
 \neq thought(mina, $\neg\exists x$ should(be-satisfied-with(you, x)))

- However, it does not seem to be possible to form rhetorical questions by extracting adjuncts from embedded clauses. Matrix extraction of adjuncts is, of course, possible.¹

- (8) a. *why*, non-modal
- i. Information seeking question:
 Why did John say that Fritz was fired? (ambiguous)
 = For what reason R, said(j, fired(f, R))? (higher construal)
 = For what reason R, said(j, fired(f, R)) (lower construal)?
- ii. Rhetorical question:
 Why did John (ever) say that Fritz was fired? (only higher)
 = $\neg\exists$ reason R, said(j, fired(f, R)) (higher construal)
 \neq $\neg\exists$ reason R, said(j, fired(f, R)) (lower construal)
- b. *why*, modal

¹The existence of rhetorical *why*-questions has been denied Cf. Lee (1995) and Gutiérrez-Rexach (1997). While it is true that such questions do not pattern with other rhetorical with respect to several diagnostics, it can be shown that this follows from the presuppositions associated with the predicate *cause* which is implicit in the semantics of *why*-questions and that 'no reason' usually means 'no good reason'.

- i. Information seeking question:
 Why should John say that Fritz was fired? (ambiguous)
 = For what reason R, should(say(j, fired(f, R)))? (higher construal)
 = For what reason R, should(said(j, fired(f, R))) (lower construal)?
- ii. Rhetorical question:
 Why should John (ever) say that Fritz was fired? (only higher)
 = $\neg\exists$ reason R, said(j, fired(f, R)) (higher construal)
 \neq $\neg\exists$ reason R, said(j, fired(f, R)) (lower construal)

c. *where*

- i. Information seeking question:
 Where did John say that Fritz saw Karl? (ambiguous)
 = At what location L, said(j, saw(f, k, L))? (higher construal)
 = At what location L, said(j, saw(f, k, L)) (lower construal)?
- ii. Rhetorical question:
 After all, where did John (ever) say that Fritz (ever) saw Karl. (only higher)
 = $\neg\exists$ location L s.t. said(j, saw(f, k, L)) (higher construal)
 \neq $\neg\exists$ location L s.t. said(j, saw(f, k, L)) (lower construal)

d. *when*

- i. Information seeking question:
 When did John say that Fritz met Karl? (ambiguous)
 = At what time T, said(j, saw(f, k, T))? (higher construal)
 = At what time T, said(j, saw(f, k, T)) (lower construal)?
- ii. Rhetorical question:
 After all, when did John (ever) say that Fritz (ever) met Karl. (only higher)
 = $\neg\exists$ time T s.t. said(j, saw(f, k, T)) (higher construal)
 \neq $\neg\exists$ location T s.t. said(j, saw(f, k, T)) (lower construal)

If we put an adverb like *first/for the first time* in the embedded clause of a *when* question such as (9a, b), only the lower clause construal of *when* is possible.

- (9) (information seeking questions)
- a. When_{j/when} did John say t_i [that Moreau first hit Ray t_j]?
- b. When_{j/when} did John say t_i [that Moreau hit Ray for the first time t_j]?

When this question is given a rhetorical interpretation, the lower construal vanishes. However, for the adverb in the embedded clause to be interpreted properly, the *when* has to be construed with it. Therefore, we get ungrammaticality.

- (10) (rhetorical questions)
- * After all when did John say [that Moreau (ever) first hit Ray]?
 - * After all when did John say [that Moreau (ever) hit Ray for the first time]?

• Differential behavior of adverbs:

Not all adjuncts behave alike. For some speakers, a lower construal is possible with *when* and *where* but a lower construal is not possible with *why* (or *how*) for any of the speakers consulted.

I will refer to the absence of long distance construal of certain adjuncts in rhetorical questions as the *rhetorical island* effect.

3 Assimilation to Negative Islands

• Sadock (1971, 1974)'s observations:

Positive rhetorical questions have the force of negative assertions and negative rhetorical questions have the force of positive assertions.

We can think of the semantics of rhetorical questions as involving a negation.

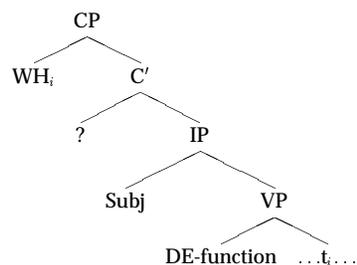
• 'Argument-Adjunct' asymmetry

The 'rhetorical island' involves something like a negation and 'argument-adjunct' asymmetries. Can it be assimilated to Negative Islands?

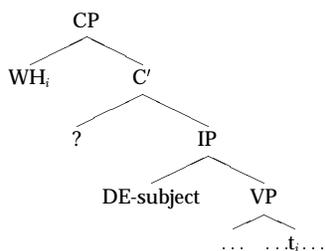
• At first, it seems that the answer has to be NO: the negative force is in the wrong place.

Negative islands involve a negation/downward-entailing function that intervenes between a *wh*-phrase and its trace. (cf. Ross (1984), Rizzi (1990), De Swart (1992), Szabolcsi & Zwarts (1991, 1993), Rullmann (1995), Beck (1996) inter alia)

(11) Neg. Island Configuration 1:



(12) Neg. Island Configuration 2:



The basic problem is that the negative force contributed by the rhetorical question is too high to function as an intervener as it does in a negative island.

3.1 Tests for the scope of rhetorical negation

3.1.1 Licensing of subject NPIs

Matrix negation does not license any NPIs in subject position. Adjunct information seeking questions do not license strong NPIs in subject position and for some speakers do not even license weak NPIs in subject position.

- (13)
- * A red cent wasn't given to Marisa.
 - * Anyone didn't give a book to Ermo.
 - * When was a red cent given to Marisa?
 - ??/* When did anyone give a book to Ermo?

However, in rhetorical questions subject NPIs are licensed.

- (14)
- After all when was a red cent ever given to Marisa?
 - After all, when did anyone ever give a book to Ermo?

3.1.2 Scope of Modality w.r.t. Negation

In declarative sentences and questions with a deontic modal and matrix negation, the deontic modal unambiguously takes scope over negation or a negative QP that it c-commands. (test and examples from Han 1997, §7)

- (15)
- Carlo must not eat the cake. (= It is obligatory for Carlo to not eat the cake)
 - Carlo must never eat the cake. (= It is obligatory for Carlo to never eat the cake)
 - When must Carlo not eat the cake? (= When is it obligatory for Carlo to eat the cake?)
 - Where must Carlo never eat the cake? (=Where is it obligatory for Carlo to never eat the cake?)

However, in positive rhetorical questions that involve a deontic modal, the negation contributed by the rhetorical force takes scope over the deontic modal.

- (16) a. What must Joan say? (= There is nothing s.t. it is obligatory for Joan to say it)
 b. What should Strube do? (= There is nothing s.t. it is obligatory for Strube to do it)

3.1.3 Scope of subject quantifiers

Certain quantifiers such as *some* cannot take scope under negation (cf. Kroch 1974).

- (17) Some student didn't come
 = $\exists x[\textit{student}(x) \wedge \neg \textit{come}(x)]$
 $\neq \neg \exists x[\textit{student}(x) \wedge \textit{come}(x)]$

However, it seems to be possible for *some* to take scope under rhetorical negation.

- (18) After all, when has some student ever volunteered himself for some extra work?
 = $\neg \exists t \exists x[\textit{student}(x) \wedge \textit{volunteer}(x, \dots, t)]$
 $\neq \exists x \neg \exists t[\textit{student}(x) \wedge \textit{volunteer}(x, \dots, t)]$

3.2 Behavioral parallels with Negative Islands

• Despite the fact that the rhetorical negation is not in the right location for it to be an 'intervener', we find parallels between the behavior of Negative Islands and the rhetorical island.

Negation has a general effect on the acceptability of questions.

- (19) a. Where did Homer die?
 b. ??Where didn't Homer die?

An affirmative question like (19a) typically has a restricted set of true answers. The corresponding negative question, cf. (19b) has a very large number of answers, which are unlikely to be informative. This makes (19b) pragmatically odd.²

If, however, the context is such that the number of potential answers is restricted enough to become informative, the oddness disappears. Consider for example (19b) in the following context:

²cf. Rullmann (1995) for a more precise explication and implementation of the idea sketched here. Beck & Rullmann in Beck (1996) offer some arguments against the exact formulation in Rullmann (1995) but the basic explanation is retained.

- (20) The only locations under discussion are the houses in a small village. The village is plagued by a supernatural being named Homer who has the habit of appearing in people's houses and then promptly dying there. Most of the houses in this village have already been 'died in' by Homer. In order to exorcise Homer from the village, a house is needed where Homer hasn't died so far.

In the context sketched in (20), the oddness of (19b) disappears.

• D-linking (cf. Pesetsky 1987) alleviates Negative Islands. A D-linked *wh*-phrase e.g. *which books* requires that both the speaker and hearer have a set of books in mind. The presence of the D-linked set makes the negative answer be pragmatically informative so that there is no pragmatic oddness.

However, not all *wh*-words/phrases are equally amenable to D-linking: *when* and *where* are easily interpreted as D-linked, while *why* and *how* resist D-linking.

- (21) (exs. 5-8b from Ch. 5 of Rullmann 1995)
 a. * I wonder how Judy didn't play with her dog.
 b. # I wonder why Judy didn't play with her dog. (under lower construal)
 c. I wonder where Judy didn't play with her dog.
 d. I wonder when Judy didn't play with her dog.

3.2.1 Assimilation to Negative Islands?

Negative Islands improve if the context is fixed so as to make the 'answer' more reasonable. One way to do this is by fixing the context and explicitly D-linking the relevant *wh*-phrase.

- (22) a. *why*
 i. For which reason did John say that Fritz had been fired?
 (ambiguous between higher and lower construal)
 ii. * Why_i did/should John not say that [that Fritz had been fired t_i]?
 (non D-linked *wh*-phrase, context not fixed)
 iii. # [For which reason]_i did John not say that [that Fritz had been fired t_i]?
 (D-linked *wh*-phrase, context fixed, still marginal)
 iv. For which reason did/should John (ever) say that Fritz had been fired?
 (higher construal only)

b. *where*

- i. In which cities did John say that Fritz saw Karl?
(ambiguous between higher and lower construals)
- ii. # Where_i did John not say [that Fritz saw Karl t_i]?
(non D-linked *wh*-phrase, context not fixed)
- iii. [In which cities]_i did John not say [that Fritz saw Karl t_i]?
(D-linked *wh*-phrase, context fixed)
- iv. After all, in which cities did John (ever) say that Fritz saw Karl.
(higher construal preferred, but lower construal also possible)

c. *when*

- i. In what years/On what days did John say that Fritz met Karl?
(ambiguous between higher and lower construals)
- ii. # When_i did John not say [that Fritz saw Karl t_i]?
(non D-linked *wh*-phrase, context not fixed)
- iii. [In which years/On which days]_i did John not say [that Fritz saw Karl t_i]?
(D-linked *wh*-phrase, context fixed)
- iv. After all, in which years/on which days did John (ever) say that Fritz hit Karl.
(higher construal preferred, but lower construal also possible)

- Fixing the context and overtly D-linking the *wh*-phrases causes lower construals of *when* and *where* to become more accessible to many speakers.

However, the lower construals do not become available in the case of *why*.

- The *rhetorical island* effect displays a sensitivity to D-linking, which patterns with Negative Islands: *when* and *where* pattern together in showing an improvement, while *why* does not display a corresponding improvement.

3.3 A non-parallelism with Negative Islands

Negative islands do not display a matrix-embedded distinction:

- (23) # Where didn't Bill say that Homer died?
(# under both the matrix extraction and embedded extraction reading)

The rhetorical island effect allows extraction from the matrix clause but not from the embedded clause.

- (24) After all, where did John (ever) say that Fritz (ever) saw Karl. (only higher)
= $\neg\exists$ location L s.t. said(j, saw(f, k), L) (higher matrix clause construal)
 \neq $\neg\exists$ location L s.t. said(j, saw(f, k, L)) (lower embedded clause construal)

4 Matrix infinitival *why* questions

In many languages, it is possible to construct matrix questions with *why* and a bare infinitival clause (cf. Green 1973, Sadock 1974).

- (25) a. Why leave? / Why worry?
b. Why not sign our guestbook? (found on a web-site)

- Matrix infinitival *why* questions are rhetorical questions. Like rhetorical questions in general, they make an assertion of the opposite polarity from what is ostensibly asked. This is reflected in their NPI-licensing properties.

Positive matrix infinitival *why* questions license strong NPIs:

- (26) a. Why (even) lift a finger?
b. # Why did John (even) lift a finger?

Negative matrix infinitival *why* questions do not license strong NPIs:

- (27) a. # Why not (even) lift a finger?
b. Why didn't John (even) lift a finger?

- They can only be used to make suggestions, not to solicit information. As a result, they are incompatible with non-agentive predicates.

- (28) a. Why eat so much for breakfast (when you...)?
b. # Why find your lost sock under the dryer?
c. Why look for your lost sock under the dryer?
d. # Why seem to be so happy? (ok under agentive reading of 'seem')
e. Why be working at home? (when you could be hanging out in Cancun)
f. # Why have finished it by tomorrow?
g. Why be a butcher when you can be a doctor?
h. Why be given to Mary? (okay under agentive interpretation)?
i. # Why be being obnoxious?
j. Why be obnoxious, when you can be charming?

It turns out that exactly the set of predicates that can be used as imperatives of the opposite polarity occur in matrix *why*-infinite questions.

- (29) a. Don't eat so much for breakfast.
 b. # Don't find your lost sock under the dryer.
 c. Don't look for your lost sock under the dryer.
 d. # Don't seem to be so happy. (ok under agentive reading of 'seem')
 e. Don't be working at home (when you could be hanging out in Cancun)
 f. # Don't have finished it by tomorrow.
 g. Don't be a butcher.
 h. Don't be given to Mary (okay under agentive interpretation)
 i. # Don't be being obnoxious?
 j. Don't be obnoxious.

4.1 Deriving the semantics of *why*-imperatives

I assume that (30a) involves a covert universal deontic modal. In this sense, it is substantially like (30b).

- (30) a. Why leave?
 b. Why should you leave?
 = Why_i [[should you leave] t_i]³

We get the following LF for (30):

- (31) $\exists p \exists R [p = \text{because}(R, \text{should}(\text{leave}(\text{you})))]$

These questions are interpreted as rhetorical questions (obligatorily for (30a), optionally for (30b)) giving us the logical representations in (32)

- (32)
 (33) $\neg \exists R (\text{because}(R, \text{should}(\text{leave}(\text{you}))))$

³There is one other plausible structure for (30a):

- i Why_i [should [you leave t_i]]
 LF: $\lambda p \exists R [p = \text{because}(R, \text{should}(\text{leave}(\text{you}))) \wedge \sim p]$
 Rhetorical interpretation: $\neg \exists R (\text{because}(R, \text{should}(\text{leave}(\text{you}))))$

In order to derive the right meaning, we have to assume something like (ii).

- ii $\forall P (\text{should}(P) \rightarrow \exists R (\text{should}(\text{because}(R, P))))$

This gives us the right meaning cf. (35). However, (ii) does not seem very plausible to me and it is indeed possible that the representation in (i) is ruled out by the rhetorical island effect.

Conjecture 1: Every *should* has a reason i.e.

- (34) $\forall P (\text{should}(P) \rightarrow \exists R (\text{because}(\text{should}(P), R)))$

Now applying the contrapositive, we get:

- (35) $\neg \text{should}(\text{leave}(\text{you}))$
 It is not morally necessary for you to leave.

The speaker is asserting that there is no reason which makes it morally necessary for the hearer to leave. Therefore the hearer is 'free' to not leave.

The next step involves an implicature.

What we want to derive is the following:

- (36) Do not leave
 (with my wishes and desires in mind) you should not leave
 I suggest that you not leave.
 should($\neg(\text{leave}(\text{you}))$)

The implicature is that the speaker by pointing out this freedom of the hearer is suggesting that the hearer stay.

4.2 Rhetorical island effects

Matrix infinitival *why* questions obey the rhetorical island effect.

- (37) a. Why say that Bill was fired?
 = $\neg \exists R \text{should.say}(\text{PRO}, \text{fired}(\text{bill}), R)$
 $\neq \neg \exists R \text{should.say}(\text{PRO}, \text{fired}(\text{bill}), R)$
 b. Why should Ermo say that Bill was fired?
 = for what R $\text{should.say}(\text{ermo}, \text{fired}(\text{bill}), R)$
 = for what R $\text{should.say}(\text{ermo}, \text{fired}(\text{bill}), R)$

5 Summing Up

• Rhetorical island effects support the view that more than just LF is needed to adequately handle certain semantic well-formedness effects. This is so because what makes a question a rhetorical question is its denotation and this information is not available at LF.

• Even though rhetorical island effects seem related to Negative Islands, it does not seem to be the case that they can be reduced to Negative Islands.

- Nature of the negative force in rhetorical question?

Putative evidence for negation:

1. Paraphraseability by negation: in general, just because something can be a paraphrased by a negation does not mean that it necessarily involves negation cf. the case of double negatives.

2. Licensing of strong NPIs - but then so do counterfactual conditionals.

(38) If Martin had lifted a finger to help Martina, she would have forgiven him.

3. Similarity with Negative Island effects - but negation is not necessary for negative islands anyway. Since at least Rizzi (1990), we know that not just negation, but a larger class of Downward Entailing elements trigger Negative Island effects.

Evidence that *rhetorical* negation differs from syntactic negation: licensing of *until*

(39) a. John didn't leave until midnight.

b. *After all who ever left until midnight?

c. *If John had left until midnight, he wouldn't have missed his plane.

So what we have is a Downward-Entailing and Anti-Additive operator, and not a full structural negation.

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