

Parentheticality and the justification of speech acts

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1 Introduction

Embedded clauses sometimes carry the main point of an utterance, whereas the matrix predicate is secondary (e.g. Simons, 2007; Tonhauser, 2012):

- (1) A: Where is Louise?
B: Henry thinks that she left early for Majorca.

This raises interesting questions about the interaction between truth-conditional meaning and speech act function:

- What is the status of *parenthetical* information which bears on the truth conditions of the sentence but not its use as a speech act?
- What is the relationship between parenthetical content and main-point content?

Grammaticalized construction for expressing MP embedded clauses is *slifting* (Ross, 1973; Hooper, 1975; Rooryck, 2001; Simons, 2007; Scheffler, 2009, a.m.o.):

- (2) a. I've got enough kumquats, I think.
b. The world, she said, is coming to an end.

These sentences are truth-conditionally equivalent to normal attitude reports:

- (3) a. I think that I've got enough kumquats.
b. She said that the world is coming to an end

Slifting sentences have two pieces:

- A **slifted clause** S , occurs utterance-initially & (roughly) contributes the main point of that utterance
- A **parenthetical expression** P , consisting of an attitude predicate that is (roughly) interpreted as embedding the main-point clause

The ‘parenthetical’ element of slifts is typically analyzed as serving either an evidential function or weakening/modulating the speaker’s commitment to p (Urmson, 1952; Asher, 2000; Jayez & Rossari, 2004; Davis et al., 2007; Simons, 2007; Murray, 2014; Maier & Bary, 2015; AnderBois, 2016; Hunter, 2016; Koev, 2019)

Problem 1: Lots of work on main-point embedded declaratives, considerably less on embedded interrogatives.

Evidential/modulating analyses of parentheticals cannot be easily extended to cases of slifted interrogatives like (4):

- (4) a. Is it raining, I wonder.
b. What should we do, I ask.

Illocutionarily speaking, the sentences in (4) behave like questions, insofar as they could be felicitously followed up with an answer to the slifted interrogative.

- (5) a. A: Is it raining, I wonder.
B: Yes, it’s pouring.
b. A: What should we do, I ask.
B: We should try to conserve our oxygen tanks.

There is no clear sense in which the relevant agent is ‘committed’ to the ‘truth’ of the embedded question (if that is a coherent notion at all).

Problem 2: The distribution of possible parentheticals with both declarative and interrogative slifts is limited.

- (6) There will finally be a government next week, #I doubt/she is surprised.

The sorts of predicates that occur with interrogative slifts is even more restricted: Interrogatives which are the complements of verbs like *say/hear* cannot be slifted, though slifting is possible with declarative complements of the same predicates:¹

¹Note that the string expressed by (7b) is grammatical, but only under a quotative reading.

- (7) a. Ilya is coming to the party, I heard/Rosa said.
 b. ??Who is coming to the party, I heard/Rosa said.

We might like to understand where these restrictions come from.

Proposal:

- Building on Koev (2019), the conventional discourse effect of a slifting sentence, whether the MP is declarative or interrogative, involves making a bi-partite speech act equivalent to the conjunction of two speech acts, except only raising the issue expressed by the slifted clause.
- Variable discourse effects of interrogative slifts, and the restrictions on parentheticals in all slifting sentences, arises from the interaction between those predicates and general restrictions on asking information-seeking questions.
- In particular, the parenthetical content must *justify* the speech act expressed by the slifted clause.

Roadmap:

§2 Data on interrogative slifts in English

§3 Discourse effects of slifting: extending Koev (2019) and Farkas (2021)

§4 Some future considerations and conclusions

2 Slifted interrogatives in English

A note on data I will set aside:

Slifted clauses have root syntax (Grimshaw, 2011), thus, while topicalized free relatives might look similar to slifts, I will not consider them here.

- (8) What we're supposed to do now, they cannot say.

I will also not consider 'interrogative slifting' like (9), because the relation between the slifted clause and its accompanying clause is not paraphrasable as embedding:²

- (9) Who is coming, do you think?
 ≠ Do you think who is coming?

²See Haddican et al. (2014); Stepanov & Stateva (2016) for more on this construction.

2.1 Restrictions on the parenthetical

There are two kinds of question-embedding predicates (e.g. Lahiri 2002):

- **Responsives:** Embed both interrogative and declarative clauses (*know, say, be happy...*)
- **Rogatives:** Embed only interrogatives (*ask, wonder, be curious...*)

Non-question-embedding predicates, like *believe*, are of course impossible with slifted interrogatives:

(10) *Which candidate did Sue vote for, I think³/believe/reckon/...

Responsive predicates, including cognitive factives like *know*, emotive factives like *be happy*, and speech act verbs like *say*, generally do not allow interrogative slifts:

(11) a. Which candidate did Sue vote for, I asked/wondered.
b. *Which candidate did Sue vote for, I am happy/said/know.

However, this impossibility is not categorical; we can ameliorate this unacceptability in some cases by placing predicates in different linguistic contexts:

(12) a. Which candidate did Sue vote for, I want to know.
b. ??Which candidate did Sue vote for, I don't know.

With rogative predicates, we see that slifting is possible with *wonder* and speech acts like *ask* and *inquire* and worse/impossible with others (e.g. *investigate, control*)

(13) Which serum did the lab rats drink, I ??investigated/*controlled.

In terms of the number of verbs that occur in this construction, we are dealing with a relatively marginal phenomenon.

However, the licit parentheticals (*wonder, ask, want to know*) have something in common, namely, they express a clear basis for a questioning speech act.

2.1.1 Properties of parenthetical subjects

Non-first person subjects are relatively marked in interrogative slifts and tend to give rise with specific discourse effects.

³Modulo the dynamic guise of *think* (Özyıldız 2021).

For instance, *you*-parentheticals are possible, but only in cases where the speaker is asking a question they intend to answer themselves:

- (14) a. Why am I single, you might be wondering.
 b. What is this monstrosity, you ask.
 c. Which number will win the jackpot, you want to know.

In such cases, the speaker appears to adopt the persona of their addressee, and ‘asks’ themselves the addressee’s assumed question.

With third person subjects, slifted interrogatives seem to (perhaps invariably) give rise to a narrative reading of the parenthetical:

- (15) a. Which pie should he eat, Sam wondered.
 b. Is there room for her at the table, Marie asked.

Most naturally, (15a) describes a self-directed question authored by Sam (as opposed to the speaker) in a literary context.

In both cases, we can also interpret such questions as being ‘passed on’ by the speaker on behalf of the parenthetical subject:

- (16) *Marie is 5 years old and is too shy to ask the adults directly if she can join their dinner party. She whispers in her father’s ear, who turns to the rest of the adults:*
 Is there room for her at the table, Marie asked.

Possible objection to the whole enterprise: Maybe all interrogative slifts are just *all* cases of direct quotation, à la:

- (17) I wonder/asked, ‘What is the meaning of life?’

Response to the objection: Slifted interrogatives need not be direct quotations judging on the basis of the behavior of indexicals like *you*:

- (18) *A is alone in her office. B is late for their 4pm meeting, but shows up at 4:15. A says:*
 Oh, you’re finally here. Did you go home early, I’d wondered.

2.2 Interpreting slifted interrogatives

Slifts with *I wonder* have a ‘musing’ flavor, like *ne*-questions in Japanese (Northrup, 2014) and *oare*-questions in Romanian (Farkas & Bruce, 2010; Farkas, 2021)

(19) Is it raining, I wonder.

The intuition is that uttering (19) raises the question of whether it is raining, but gives the sense that the addressee is not obligated to answer.

When non-information-seeking questions are slifted with *I wonder*, they receive highly sarcastic interpretations:

- | | | | |
|------|----|--|----------------------------|
| (20) | a. | A: Should I break up with my boyfriend? | |
| | | B: #Do pigs fly, I wonder. | <i>Rhetorical question</i> |
| | b. | <i>Teacher, to student:</i> | |
| | | #What is the capital of Spain, I wonder. | <i>Quiz question</i> |
| | c. | #Can you pass the salt, I wonder. | <i>Indirect request</i> |

These are all contexts in which the speaker is not genuinely interested in learning info on the basis of the addressee's response.

Note that these is however not a general property of slifted interrogatives, e.g. (21) seems to press the addressee for an answer as a bare question would:

(21) Is it raining, I ask.

Moreover, the non-canonical questions above paired with *I ask*, are merely interpreted as theatrical ways of posing the question in its ordinary (pragmatically-enriched) sense.

(22) Can you pass the salt, I ask.

3 Formal account

3.1 Assumptions

Assumption 1: the denotations of both declarative and interrogative clauses are sets of propositions (*issues*, notated *I*).

→ As in alternative semantics or inquisitive semantics (Hamblin, 1973; Ciardelli et al., 2013)⁴

(23) a. $\llbracket \text{it is raining} \rrbracket = \{ \{ w: \text{it is raining in } w \} \}$

⁴In InqSem, issues are downward-closed. This will not make a difference to the present analysis, although it may become relevant in extending this analysis to non-canonical interrogatives.

- b. $\llbracket \text{is it raining?} \rrbracket = \{\{w: \text{it is raining in } w\}, \{w: \text{it is not raining in } w\}\}$

Issues are a combination of (potentially trivial) **informative** and **inquisitive** content:

- Informative content $\text{info}(I)$ for questions is normally trivial
- Inquisitive content $\text{inq}(I)$ for propositions is normally trivial

Uttering a sentence like *it is raining* or *is it raining?* ‘raises’ the relevant issue in the way defined below.

Assumption 2: The formal model of a discourse context structure from Farkas & Bruce (2010) with amendments by Meriçli (2016) and Farkas (2021).

A context structure c contains the following components:

- **part**: set of discourse participants (here assumed to be $\{Sp, Ad\}$)
- DC_X : For each $X \in \text{part}$, DC_X is the set of discourse commitments X has made in the current discourse
- **Table**: Set of issues awaiting resolution⁵
- **projected set** ps : Given a contextually-determined X (Ad by default), a ps is the set of projected DC_X

A discourse move is ‘compliant’ if it results in the relevant DC_X being compatible with an element in the ps .

Assumption 3: Uttering sentences updates c in ways that accord with the specific type of sentence and the content of that sentence.

The basic conventional discourse effects for declarative and interrogative sentences from Farkas & Roelofsen (2017):

- (24) CDE of uttering a declarative p ($I = \{\{p\}\}$)
- a. $\text{Table}_o = \text{Table}_i \cup \{I\}$
 - b. $ps_o = \{DC_{Ad,i} \cup \{p\}\}$
 - c. $DC_{Sp,o} = DC_{Sp,i} \cup \{\text{info}(I)\}$

⁵In Farkas & Bruce’s original formulation, the Table is a stack. I treat it as a set here for simplicity, but the analysis would still work the same way if it were a stack.

- (25) CDE of uttering an interrogative p ? ($I = \{\{p\}, \{\bar{p}\}\}$)
- a. $\text{Table}_o = \text{Table}_i \cup \{I\}$
 - b. $ps_o = \{DC_{Ad,i} \cup \{p\}, DC_{Ad,i} \cup \{\bar{p}\}\}$
 - c. $DC_{Sp,o} = DC_{Sp,i} \cup \{\text{info}(I)\}$

A canonical declarative projects only one compliant future (in which the addressee commits to p).

A canonical interrogative projects multiple compliant futures, one corresponding to each potential answer to the expressed question.

Some kinds of marked declaratives and interrogatives can also have *special* discourse effects which update the context in different ways.

3.2 The meaning of interrogative slifts

I follow Hooper (1975); Simons (2007); Koev (2019) in assuming that slifted sentences contribute ‘dual’ speech acts:

- (26) DOUBLE ASSERTION HYPOTHESIS (Koev 2019, building on much older work)
- A slifting sentence makes two assertions as part of its conventional meaning. The slifted clause contributes the main assertion and the parenthetical adds secondary information.

Thus, an ordinary slifted sentence involves two assertions, as follows:

- (27) It is raining, I think.
- a. **Main assertion:** It is raining.
 - b. **Parenthetical assertion:** I think it is raining.

This hypothesis is tailored to declarative slifts, so I propose to generalize it in the following way:

- (28) DOUBLE SPEECH ACTS HYPOTHESIS
- A slifting sentence makes **two simultaneous speech acts** as part of its conventional meaning. The slifted clause **raises the main issue** and the parenthetical adds secondary information.

Interrogative slifts, by analogy, constitute *hybrid* speech acts, consisting of a question and an assertion:

- (29) Is it raining, I wonder.
- a. **Main issue:** Is it raining?
 - b. **Parenthetical assertion:** I wonder whether it is raining.

The main point is inquisitive content, and the parenthetical is informative.

Crucially, I propose that slifted sentences contribute the following special discourse effect:

- (30) **SDE of a slifted sentence**
 For a slifted sentence S, P , where S raises Issue I_1 and P raises issue I_2 :
- a. $\text{Table}_o = \text{Table}_i \cup \{I_1\}$
 - b. $ps_o = \forall p_i \in I_1, I_2[\{DC_{Ad,i} \cup \{p_1\}, DC_{Ad,i} \cup \{p_2\} \dots DC_{Ad,i} \cup \{p_n\}\}]$
 - c. $DC_{Sp,o} = DC_{Sp,i} \cup \{\text{info}(I_1)\} \cup \{\text{info}(I_2)\}$

A slifting sentence updates the projected set and discourse commitments in the same way as the conjunction of its component parts, but **without putting the parenthetical Issue on the Table**.

→ This is a way of cashing out the sense in which the parenthetical component of the clause is parenthetical

3.3 Examples

Let p be the proposition *it is raining*, and let \bar{p} be the proposition *it is not raining*.

Discourse context after utterance of *Is it raining, I wonder*, assuming the Table starts empty:

- (31)
- a. Table: $\{\{p, \bar{p}\}\}$
 - b. $ps: \{DC_{Ad} \cup \{w : Sp \text{ wonders in } w \text{ whether } p\}, DC_{Ad} \cup \{p\}, DC_{Ad} \cup \{\bar{p}\}\}$
 - c. $DC_{Sp}: \{w : Sp \text{ wonders in } w \text{ whether } p\}$

Three compliant ways for Ad to resolve the current Issue: they can answer the question in the affirmative or the negative, or accept the assertion about Sp 's wondering.

This analysis is, in the end, very similar to Farkas's (2021) proposal about the Romanian discourse particle *oare*:

- The interrogative slift gives the speaker a way to be compliant without answering the question, i.e., a third option in the projected set

- This formalizes the intuition that *p?*, *I wonder* does not require the addressee to commit one way or the other to answering *p?*

Recall that the minimally different sentence *Is it raining, I ask* does not have the same ‘musing’ feel, and seems to request a response from the addressee.

(32) *ps* after utterance of *Is it raining, I ask*: $\{DC_{Ad} \cup \{w : Sp \text{ asks in } w \text{ whether } p\}, DC_{Ad} \cup \{p\}, DC_{Ad} \cup \{\bar{p}\}\}$

Here, as before, a compliant *Ad* can either answer the question of whether it is raining, or accept the assertion that *Sp* asks whether it’s raining.

While this assertion-acceptance may be compliant as far as the Table is concerned, it is pragmatically odd:

- Asking is assumed to be a request for information from the addressee—in this case, about whether it is raining.
- Thus, by not answering the question, but merely acknowledging that it is asked, *Ad* would be uncooperative, in acknowledging the speaker’s request but not attempting to fulfill it.
- The same oddity comes from an improper response to *I am asking whether it is raining*.

3.4 Understanding the restrictions on parentheticals

One major goal is to understand why interrogative slifting only occurs with a handful of parenthetical predicates.

(33) *Is it raining, John knows.

To see what is odd about this, the discourse update provided by uttering (33) given our SDE for slifted sentences:

(34) a. Table: $\{\{p, \bar{p}\}\}$
 b. Projected set: $\{DC_{Ad} \cup \{w : \text{John knows in } w \text{ whether } p\}, DC_{Ad} \cup \{p\}, DC_{Ad} \cup \{\bar{p}\}\}$
 c. DC_{Sp} : $\{w : \text{John knows in } w \text{ whether } p\}$

The intuition is that *Ad* accepting the assertion *John knows whether it’s raining* is not relevant, in some important sense, to the Issue of whether it is raining.

In effect, (33) seems bad because it creates a degenerate projected set.

Rather, we want to ensure that the parenthetical must somehow justify uttering the question expressed by the slifted interrogative:

- (35) **SLIFTING RELEVANCE RESTRICTION**
 A slifted sentence S, P may only be uttered in context c if the Sp uttering P in c entails that Sp in a position to utter S in c .

What it means to be ‘in a position to utter S ’ depends on the kind of sentence which S is:

- (36) a. Uttering a canonical **question** requires the speaker to a) be ignorant of the true answer to that question and b) want to know that answer.
 b. Uttering a canonical **assertion** requires the speaker to a) be committed to the truth of the asserted proposition and b) intend to inform the addressee of that truth

Given the restriction above, only parenthetical statements which entail these conditions should be licit.

3.4.1 Accounting for subject differences

This general picture can account for the contrast between *I wonder/ask* and *John knows*:

- (37) a. I wonder whether it’s raining.
 \Rightarrow I don’t know whether it’s raining and I want to know whether it’s raining.
 b. John knows whether it’s raining.
 \nRightarrow I don’t know whether it’s raining and I want to know whether it’s raining.

- *I wonder/ask* lexicalize speaker inquisitiveness, so they will generally put the speaker in the position to utter a question
- Few other predicates do

And it can also explain the addressee-orientedness of slifted interrogatives with *you*-parentheticals:

- (38) Why am I grinning, you ask.

Questions of this sort are typically licit when the addressee is presumed to be inquisitive about something, and the speaker intends to follow up with an answer.

To see why, note that (38) cannot be plausibly interpreted as a normal information-seeking question, because:

- (39) a. You ask why I am grinning.
 \nRightarrow I don't know why I'm grinning and I want to know why I'm grinning.

On the other hand, we *can* interpret this as a self-directed question, where the speaker 'adopts' the persona of the addressee.

In this case, what becomes relevant to justify the question is whether the *addressee* could sincerely ask the slifted question:

- (40) a. You ask why I am grinning.
 \Rightarrow You don't know why I'm grinning and you want to know why I'm grinning.

We can capture this by adjusting the SDE for slifting sentences to relativize the projected set to a contextually-determined individual X , as opposed to only Ad .

In this case, uttering (38) gives us the following updated context:

- (41) a. Table $\{\{p_1, p_2, p_3, \dots\}\}$
 b. $ps : \{DC_{Sp} \cup \{w : Ad \text{ asks why } Sp \text{ is grinning in } w\}, DC_{Sp} \cup \{p_1\}, DC_{Sp} \cup \{p_2\} \dots\}$
 c. $DC_{Sp} : \{w : Ad \text{ asks } w \text{ why } Sp \text{ is grinning}\}$

A similar explanation can account for the fact that *ask*-parentheticals with third person subjects are understood to be questions on someone else's behalf:

- (42) Is there space at the table, Marie asked.

3.5 Extension to declarative slifting

The same notion of justification can account for restrictions on parentheticals with declarative slifts as well.

It has been long argued that in declarative slifts, the parenthetical must create an upward-entailing environment (Hooper, 1975; Scheffler, 2009; Hunter, 2016, a.o.)

(43) It is raining, I think/believe/*doubt/*deny/she said.

This can be derived from the same restriction on relevance. Consider an ill-formed sentence with parenthetical *doubt*:

- (44) *It is raining, Marie doubts.
- a. Table: $\{\{p\}\}$
 - b. Projected set: $\{DC_{Ad} \cup \{w : \text{Marie doubts that } p \text{ in } w\}, DC_{Ad} \cup \{p\}\}$
 - c. $DC_{Sp}: \{p\} \cup \{w : \text{Marie doubts that } p \text{ in } w\}$

Here, we see a similar issue to above: it is not clear that Marie's doubt that p is a viable candidate for the ps .

Assuming that crucial component of making an assertion is belief in p , this fact is easily explained by (45), which holds of non-UE parentheticals generally:

- (45) Marie doubts that it is raining.
 \Rightarrow I believe that it is raining.

On the other hand, negating *doubt* renders their parenthetical use much more felicitous:

(46) It is raining, I don't doubt.

This is not surprising if we take *I don't doubt* to mean something roughly like *I believe*.

3.5.1 A loose thread

Our relevance principle will need revision, because it seems that no amount of pragmatic contortion will make (44) felicitous.

- (47) *I know that Marie is highly skeptical, but also tends to be wrong about the world. Thus, if she doubts something, I tend to believe that thing. Marie told me that she doubts that it's raining.*
 *It is raining, Marie doubts.

4 Conclusion/Outstanding Issues

Slifting parentheticals convey two basic morsels of content:

- A **main point** which contributes the issue raised by the sentence

- A **parenthetical** which updates the speaker's discourse commitments and the projected set, but doesn't raise any issues

This captures the sense in which the parenthetical is 'secondary' to the main point.

The parenthetical also must be tightly linked to the main point:

- The parenthetical must justify the speech act expressed by the slifted clause, which can only be achieved by some parenthetical predicates.
- This also gives rise to special discourse effects with non-1p subjects in the parenthetical with slifted interrogatives
- The same justification principle can explain monotonicity restrictions on parenthetical in declarative slifts.

Many outstanding questions:

- How could we formalize the relevance restriction on slifted sentences from more general principles?
 - One idea: generalized restrictions on the relationship between the projected set and issues on the Table
- How does slifting differ from other parentheticals? Parenthetical content need not always support the main point, e.g. appositives:

(48) The lunchlady, **who last week keyed the gaudy Mercedes**, is a very hard worker.

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