

# Conditional Questions as Matrix Questions with Syntactic Reconstruction

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# 1 Introduction and Overview

- Today's talk: Conditional Questions (CQ)

(1) a. If it's raining, will Joanna leave?

b. If it's raining, who will show up?

- Informal interpretation: a question in the conditional consequent is raised against the information specified by the conditional antecedent.
- **Question:** how exactly do CQs compose to derive this meaning?
- **Puzzle:** On the standard/conservative analysis, *if* connects two declarative sentences; here, it seems to compose a declarative sentence with an interrogative one. What makes that possible?
- Existing accounts of CQs ('*if*>? approach') take the surface form at face value and presuppose a What-You-See-Is-What-You-Get syntax (Velissaratou, 2000; Isaacs and Rawlins, 2008; Krifka, 2019; Bledin and Rawlins, 2019; Ciardelli et al., 2019)

(2) *if*>? approach:

CQs are structures in which a question is embedded in the consequent of a conditional (*if* > ?). 'if' (or whichever is the operator that builds conditional constructions) can compose a proposition with a question meaning.

- *if*>? theories therefore must employ and justify some non-standard semantic machinery
  - Isaacs and Rawlins (2008): A two-step, dynamic, interpretation for conditionals process (two-step process of context update)
  - Ciardelli et al. (2019)'s Inquisitive Semantics: *if* can be semantically lifted from its basic meaning as composing two propositions to one that can operate on a question meaning (sets of propositions) in one of its arguments.

- **Goals of this talk:**

- to develop and argue for a theory of CQs that denies the *if*? assumption, replacing it with a ‘?>*if*’ assumption
- **In a nutshell:** CQs are matrix questions scoping over a conditional at Logical Form (LF), despite surface appearance.

(3) **?>*if* Approach** (this paper)

- (i) CQs are structures in which, despite surface appearance, a conditional is embedded under a question (? > *if*); they are ordinary matrix questions.
- (ii) ‘if’ cannot connect a proposition with a question; it only ever connects a proposition with a proposition.

- **Core claim:**

the conditional antecedent **syntactically reconstructs** into the scope of the question before semantic interpretation (i.e., at LF).

(4) *Core proposal: the LFs of (1), schematically*

- a. Will [Joanna leave [if it’s raining]]?
- b. Who<sub>1</sub> will [<sub>1</sub> will show up [if it’s raining]]?

- Syntactic reconstruction allows us to keep the semantics of both conditionals and questions completely standard; nothing interesting needs to be said.
- We build on independent observations by **Iatridou 1991** and **Bhatt and Pancheva 2006** to claim that syntactic reconstruction of *if*-clauses exists (outside of CQs), rendering the semantic machinery of *if*? analyses unnecessary.
- We show that our account makes correct predictions with respect to diagnostics for *if*-clause reconstruction: Scope, Islands, Principle C, Variable Binding.

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- Finally, we try to claim that the semantic enrichments of *if*>? accounts are not only unnecessary but also **harmful**: they are at risk of over-generating some unattested structures when we switch from conditionals to other connectives, namely disjunction and conjunction.
- Structure of the talk:
  - We first present the formal details of our ?>*if* theory, and we show how it delivers all the basic desiderata of a theory of CQs.
  - We then review the diagnostics for *if*-clause reconstruction, and we crucially demonstrate that the distribution of CQs is constrained by the same diagnostics, supporting our ?>*if* analysis.
  - Finally we discuss the over-generation challenge for *if*>? analyses, from unattested conjunction and disjunction structures.

## 2 An ?>*if* analysis of Conditional Questions

### 2.1 Syntax and semantics

- A syntactic derivation for the polar question in (1a) is given schematically in (5), and for the constituent question in (1b) is given schematically in (6). The *if*-clause, an adverbial, starts out somewhere inside TP and then moves up to adjoin to CP.<sup>1</sup>

(5) *Derivation of (1a)* ‘if it rains, will Joanna leave?’

- Base structure:  $[_{\text{TP}} \text{Joanna will leave } [_{\text{ADVP}} \text{if it rains}]]$
- Head-movement:  $[_{\text{CP}} \text{will } [_{\text{TP}} \text{Joanna leave } [_{\text{ADVP}} \text{if it rains}]]]$
- Fronting:  $\left[ [_{\text{ADVP}} \text{if it rains}]_2 [_{\text{CP}} \text{will } [_{\text{TP}} \text{Joanna leave } t_2]] \right]$

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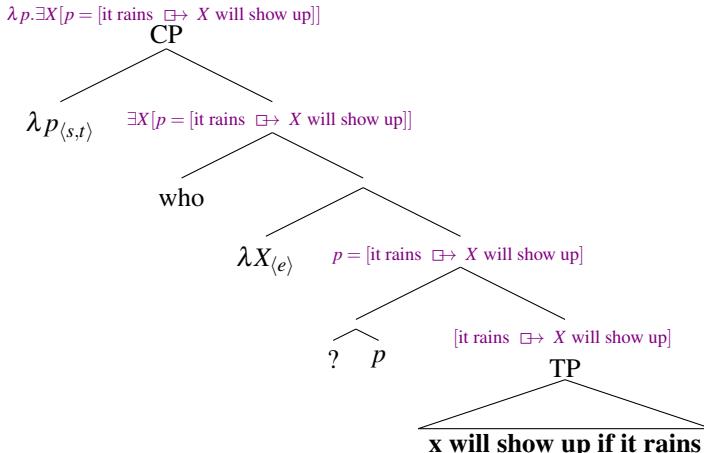
<sup>1</sup>We are being deliberately vague about where exactly the *if*-clause adverbial sits in the TP, because the choices don't matter for current purposes. We cannot rule out a parse where the *if*-clause originates TP-initially, higher than the subject. See more on this in footnote 7

(6) *Derivation of (1b)* ‘if it rains, who will show up?’

- a. Base structure:  $[_{\text{TP}} \text{ who will show up } [_{\text{ADVP}} \text{ if it rains}]]$
- b. WH(+head)-movement:  $[_{\text{CP}} \text{ who}_1 \text{ will } [_{\text{TP}} t_1 \text{ show up } [_{\text{ADVP}} \text{ if it rains}]]]$
- c. Fronting:  $[_{[\text{ADVP if it rains}]}_2 [_{\text{CP}} \text{ who}_1 \text{ will } [_{\text{TP}} t_1 \text{ show up } t_2]]]$

- The structure after fronting feeds the phonological form (PF). At LF, however, the *if*-clause reconstructs so the input to semantic interpretation is (5b)/(6b) (we illustrate our theory using the constituent question case in (6b)).
- The denotation of questions is a set of propositions which correspond to the set of its (possible) answers, together with a general recipe for using that set to induce a partition of the context (see Hamblin 1973; Karttunen 1977; Heim 1994).
- The question denotation of (6b) is then the set of **conditional** propositions of the form *x will show up if it rains*.

(7) *LF of a CQ*



6 *Conditional Questions*(8) a.  $\{p : \exists X[p = [\text{it rains } \square \rightarrow X \text{ will show up}]]\}$ 

b.  $\{\text{it rains } \square \rightarrow \text{Ann will show up},$   
 $\text{it rains } \square \rightarrow \text{Fred will show up},$   
 $\text{it rains } \square \rightarrow \text{Ana} \oplus \text{Fred will show up}, \dots\}$

- For the meaning of  $\square \rightarrow$ , any other analysis will do as long as it validates Conditional Excluded Middle in (9). For concreteness: Stalnaker's semantics 10.

(9) *Conditional Excluded Middle (CEM):*

$$\neg(p \square \rightarrow q) \equiv p \square \rightarrow \neg q$$

'It's not true that if it rains Ann will show up'  $\equiv$  if it rains Ann won't show up'

(10) *Stalnaker's semantics for conditionals:*

$\llbracket p \square \rightarrow q \rrbracket = \lambda w. \llbracket q \rrbracket(w') = 1$ , where  $w'$  is the most similar world to  $w$  among those that make  $\llbracket p \rrbracket$  true.

Stalnaker's semantics validates CEM as long as there is always exactly one most similar world to any  $w$ , as assumption that we take to be an added presupposition of  $\square \rightarrow$  (thus, it is more accurate to say that (10) Strawson-validates CEM, in the sense of Strawson-entailment familiar from von Fintel 1999).<sup>2</sup>

- Adopting Stalnaker's analysis, (8b) can be re-written as in (12).<sup>3</sup>

<sup>2</sup>As for an alternative to Stalnaker's analysis we could opt for the Lewis-Schlenker hypothesis that *if*-clauses refer to a *plurality* of most-similar worlds (Lewis 1973; Schlenker 2004). That, together with a Homogeneity presupposition familiar from the literature on plural definites (von Fintel 1997), would (Strawson-)validate CEM as well.

<sup>3</sup>As for the polar conditional question in (5), the analysis is the same except for a choice point largely irrelevant to our main concern. Depending on one's favorite theory of polar questions, their basic denotation could either be thought of as a doubleton set containing both the positive and the negative proposition in the question nucleus, giving us (11a); or it can be thought of as a singleton as in (11b), and the negative proposition being supplied indirectly through the partition function, see (13) below.

(11) a. {If it rains Joanna will leave, $\neg$ if it rains Joanna will leave}	(doubleton)
b. {If it rains Joanna will leave}	(singleton)

(12)  $\{\lambda w. \text{Ann shows up in the most similar rain world to } w,$   
 $\lambda w. \text{Fred shows up in the most similar rain world to } w,$   
 $\lambda w. \text{Ana} \oplus \text{Fred show up in the most similar rain world to } w, \dots\}$

## 2.2 Partition induced by Conditional Questions

- Questions induce a partition of the context (Hamblin 1958, Groenendijk and Stokhof 1984 et seq.)
- The question denotation in (12) does not constitute a partition by itself, but the partition can be retrieved from the denotation as usual by deviding the context set into a set of cells each of which contains worlds that agree on the truth value of all the propositions in Q.

(13) Let Q be a set of propositions (a question) and C a set of worlds (a context set).

- $\text{PART}(Q, C)$ , the partition of C based on Q, =  
 $\{p \mid \exists w \in C [p = \{w' : w \sim_{Q,C} w'\}]\}$
- $w \sim_{Q,C} w'$  iff  $w, w' \in C$  and  $\forall p \in Q [p(w) = p(w')]$

Assume that Ann and Fred are the only relevant individuals. Then given (13) the partition induced by (8) is the set of mutually-exclusive propositions in (14). Each cell intuitively corresponds to an exhaustive answer to the question.

(14) *The contextual partition induced by (8)*

$$\{ \text{it rains } \square \rightarrow \text{show-up(Ann)} \wedge \text{show-up(Fred)};$$

$$\text{it rains } \square \rightarrow \text{show-up(Ann)} \wedge \neg \text{show-up(Fred)};$$

$$\text{it rains } \square \rightarrow \neg \text{show-up(Ann)} \wedge \text{show-up(Fred)};$$

$$\text{it rains } \square \rightarrow \neg \text{show-up(Ann)} \wedge \neg \text{show-up(Fred)}^4 \}$$


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<sup>4</sup>It is sometimes suggested that the ‘negative’ cell should not strictly speaking be part of the contextual partition induced by a Q. In that case the last member in (14) shouldn’t be there. This can be explained if we assume following Dayal (1996) that questions impose a Maximality presupposition on the context, to the effect that one member of the question

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The second cell in (14), for instance, comprises exactly of those worlds in C which make the first proposition in (8b) true (i.e., *it rains*  $\square \rightarrow$  *Ann will show up*) and the second proposition there false (i.e.,  $\neg(\textit{it rains} \square \rightarrow \textit{Fred will show up})$ ). Given CEM,  $\neg(\textit{it rains} \square \rightarrow \textit{Fred will show up})$  is equivalent to  $(\textit{it rains} \square \rightarrow \neg\textit{Fred will show up})$ . So the overall result gives us the second cell.<sup>5</sup>

Partitions help us define answerhood conditions on questions (Groenendijk and Stokhof 1984). A direct answer to a question Q is appropriate only if it denotes a cell or a union of cells in the partition induced by Q. For our example, the good answer in (15a) indeed denotes the union of the first two cells in (14).<sup>6</sup> We assume that a fragmentary answer like (15b) is really just a shorthand for the conditional answer in (15a).

(15) Q: If it's raining, who will show up?

- a. A: If it's raining, Ann will show up.
- b. A: Ann (will show up).

### 2.3 Denial of the antecedent

Isaacs and Rawlins (2008) discuss the fact that denying the conditional antecedent seems to be a felicitous response to a CQ:

(16) Q: If it's raining, who will show up?

A: It won't rain.

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denotation must be true (and entail all other true ones). It also follows from Fox (2019)'s demand that every proposition in Q will identify through exhaustification some cell in the contextual partition induced by Q (cf. previous footnote). We can remain agnostic about the proper treatment of the negative cell.

<sup>5</sup>To see that the propositions in (14) are mutually exclusive, and thus that they make up cells, remember that Stalnaker's conditional checks for truth of the consequent in the single most similar antecedent-world (and recall we assume there is always one). Since the consequents in (14) are mutually exclusive, no world can make more than one of the propositions in 14 true. The cells are therefore disjoint.

<sup>6</sup>Or, if (15a) is appended with an exhaustivity operator (Fox 2007), it denotes just the first cell of (14).

The felicity of the response in (16) is a challenge given the answerhood condition mentioned above, since the denial of the antecedent is not a cell in the partition induced by the question (nor is it a union of cells).<sup>7</sup>

We adopt Isaacs and Rawlins (2008)'s own solution to the challenge: the denial of the antecedent amounts to a denial of a presupposition that the question carries. Indicative conditionals presuppose that the context set contain some antecedent worlds ( $p \square\rightarrow q$  uttered in  $C$  presupposes that there are  $p$ -worlds in  $C$ ); the question in (16) then presupposes that it might rain. The response by A objects to this presupposition, denying that the antecedent is contextually possible. From this perspective, denying the antecedent is no different from parallel cases in which some presupposition that a question carries is denied as a response. For instance in (17), the existence presupposition of the definite description is denied and the discourse sounds felicitous.

(17) Q: Did you go on the escalator here?

A: There is no escalator here.

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<sup>7</sup>To see this, observe that many pairs  $w, w'$  of non- $p$  worlds in  $C$  could disagree on the value of some proposition(s) in the set  $p \square\rightarrow q$ , and that would make such  $w, w'$  belong to different cells in the partition. For our example, take  $w$  to be a non-rain world the most similar rain-world to which is such that both Ann and Fred show up, and take  $w'$  to be a non-rain world the most similar rain-world to which is such that Ann shows up but Fred doesn't. Then  $w$  and  $w'$ , even though they are both themselves non-rain worlds, will belong to different cells in the partition described in (14). And in both of those cells there can also be rain-worlds. So the partition determined by a CQ  $p \square\rightarrow q$ ? will not generally contain a cell or union of cells that corresponds to  $\neg p$ .

## 2.4 Recap and lookahead

- **Intermediate Summary:**

- We developed an account of the basic facts about conditional questions which relies on reconstruction of the *if*-clause into the question nucleus at LF.
- This allows us to employ ordinary assumptions about semantic interpretation—a Hamblin-Karttunen-style semantics for questions and a Stalnaker semantics for conditionals, without recruiting special machinery to deal with the specific phenomenon of CQs.
- *if* can retain its simple analysis of connecting two propositions.

- **What comes next**

- We review independent arguments for *if*-clause reconstruction based on scope facts and general syntactic constraints on reconstruction (Binding Principle C, Islands and variable binding)
- We crucially show that the distribution of CQs is constrained in the way prescribed by the reconstruction analysis, supporting our core hypothesis.
- *if>?* accounts, not relying on reconstruction, will not predict the data

## 3 Arguments for syntactic reconstruction

### 3.1 Scope relative to attitude predicates

- Iatridou (1991) and Bhatt and Pancheva (2006) discuss evidence from scope interaction with matrix attitude verbs in the declarative domain that some sentence-initial *if*-clauses originate lower than their surface position, as exemplified in (18):

(18) a. If it rains, Mary believes that Bill will come. (Iatridou 1991:26)

≈ ‘Mary believes that Bill will come if it rains’

b. If Ed comes to the party, Mary is convinced that Joanna will leave early.

≈ ‘Mary’s convinced that Joanna will leave early if Ed comes to the party’

c. If Alfonso comes to the party, Mary knows that Joanna will leave.

≈ ‘Mary knows that Joanna will leave if Alfonso comes to the party’

- Sentence (18a) on its most salient reading describes the existence of Mary’s thought about a conditional, and not that the existence of her thought is conditioned on rain.
  - This indicates that the *if*-clause is interpreted in the scope of *believe*.
- Suggesting that the *if*-clause started out in the embedded clause as in (19) and moved to its surface position.

(19) Mary believes [that Bill will come if it rains].

[One may try to raise the possibility that the relevant reading is read off the surface syntax of (18), without reconstruction, using (yet-to-be-specified) semantic means. We show now that this alternative attempt arguably makes a wrong prediction. Specifically, it conflicts with established generalizations about presupposition satisfaction and projection.

Indicative conditionals presuppose that the proposition expressed by the *if*-clause is contextually possible, i.e. that the context set contain antecedent worlds. This explains why the following is odd, as this presupposition of the *if*-clause clashes with contextual knowledge:

(21) (Context: We know that Johanna is out of town so there is no way she will come to the party tonight.)

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<sup>7</sup>As Iatridou (1991) and Bhatt and Pancheva (2006) emphasize, sentences like in (18) are only evidence that the fronted *if*-clause has a source in the embedded clause, but they are silent on where exactly in the clause. In particular, they don’t decide on the question of whether the base position of the *if*-clause is clause-final as we represent in (19) or rather clause-initial in the embedded clause. For reasons of convenience only, we will always represent the pre-moved site of *if*-clauses as clause-final. This decision should not be taken to be of theoretical importance. In fact, reconstruction all the way to clause-final positions cannot be assumed to always be available, because of data like (20) which shows the lack of clause-final reconstruction for the purpose of Principle C.

(20) a. If John<sub>i</sub> is home, he<sub>i</sub> is not alone.

b. \*He<sub>i</sub> is not alone if John<sub>i</sub> is at home.

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- a. #Alfonso will leave if Johanna comes to the party tonight.
- b. #If Johanna comes to the party tonight, Alfonso will leave.

In the scope of attitude predicates (*think*, *hope*, *want* etc.), presuppositional information is ‘filtered’ (Karttunen 1974; Heim 1992): it only poses constraints on the belief state of the attitude holder, not on the (global) context. This is why the presuppositions triggered by the definite description *her cello* in the second sentence in (22) do not cause a clash with the information specified in the first sentence.

(22) Bill is mistaken to think that Mary owns a cello. He furthermore thinks that she wants to sell her cello. (after Heim 1992)

The reconstruction analysis then predicts that fronted *if*-clauses that are interpreted in the scope of attitude predicates will similarly not impose constraints on the global context, but only on the belief state of the attitude holder. This is borne out, as (23a) and crucially (23b) both sound coherent.

(23) (Context same as (21))

- a. Bill mistakenly thinks that Johanna might come to the party tonight. Furthermore, he thinks that Alfonso will leave if she comes.
- b. Bill mistakenly thinks that Johanna might come to the party tonight. Furthermore, if she comes he thinks that Alfonso will leave.<sup>8</sup>

The fact that the existence presupposition triggered by the *if*-clause in (23b) is filtered under the attitude indicates that the *if*-clause must be allowed to fully take scope under the attitude verb, as predicted by the reconstruction analysis. But if the *if*-clause in (23b) was interpreted where it surfaces, we would wrongly predict presupposition failure. We conclude that the inverse scope of sentence like (18) is not a scope illusion.]

- We thus have an argument for syntactic reconstruction of *if*-clauses independently of CQs.
- On our analysis, it is this operation that underlies both the the scope interaction with attitude verbs and our  $?>if$  syntax for CQs.
- (24) is an example that combines both: it is a CQ in which the *if*-clause reconstructs under an attitude predicate. And (25b) shows that the same filtering facts extend to CQs.

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<sup>8</sup>We note that (23b) becomes odd or at least very degraded if the second sentence is uttered in isolation. Against the context in (21), the sentence *if Johanna comes Bill thinks that Alfonso will leave* sounds like a presupposition failure. But this is also true of (23a), so it is not about the surface position *per se* of the *if*-clause. Rather, it could be attributed to the idea, going back to Karttunen and to Heim (1992), that presuppositions in the scope of attitude verbs tend to be globally accommodated as a default unless the speaker explicitly signals that the attitude holder’s presuppositions do not coincide with theirs. That tendency is apparently so strong that it can cause a clash with contextual knowledge, a clash which is prevented by the explicit addition of the first sentence in (23a)-(23b).

(24) If Johanna comes to the party, who does Bill think will leave? (*think* > *if*)

(25) a. A- Bill is mistaken to think that Johanna might come to the party tonight.

B- Yeah I know. But does he think that Alfonso will leave if she comes?

b. A- Bill wrongly thinks that Johanna might come to the party tonight.

B- Yeah I know. But if she comes does he think that Alfonso will leave?

- **What comes next:** we present three separate diagnostics for *if*-clause reconstruction, following Iatridou (1991) and Bhatt and Pancheva (2006): Islands, Principle C, and variable binding.
- In each such case, we will show that the distribution of CQs are sensitive to the same diagnostics, further supporting our proposal.

## 3.2 Islands

- Bhatt and Pancheva (2006): island configurations restrict the inverse scope of *if*-clauses.

(26) *Island effects*

a. #If Alfonso comes to the party, Mary expressed the concern that Joanna will cause trouble. (Complex NP island)

b. #If it rains, Mary wonders whether Bill will come.

(WH-island; Bhatt and Pancheva 2006)

- *if*-clause cannot take low scope when an island condition is violated.
- CQs can be observed to similarly be constrained by islands, which lends support to our claim that CQs involve syntactic reconstruction:

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(27) a. \*If John comes to the party, did Mary express the concern that Ann will come too? (with *concern*>*if*)

b. \*If John comes to the party, does Mary wonder whether Ann will come? (with *wonder*>*if*)

### 3.3 Principle C

- Inverse scope of *if*-clauses is sensitive Binding Principle C effects:

### (28) Principle C effects

- a. \*If  $John_i$  gets sick,  $he_i$  thinks that Ann will come visit. (with  $think > if$ )  
(Bhatt and Pancheva 2006)
- b. \* $He_i$  thinks that Ann will come visit if  $John_i$  is sick.
- c. (?)If  $he_i$  gets sick,  $John_i$  thinks that Ann will come visit. (with  $think > if$ )

- (28a) under the indicated reading is bad because after reconstruction of the *if*-clause to its original position, the proper name is c-commanded by the co-indexed pronoun, exactly like in (28b).
- Here too, we see that CQs induce the same Principle C effects, see (29). This furnishes another indication that CQs involve reconstruction.

(29) \*If John<sub>i</sub> comes to the party, does he<sub>i</sub> think that Alfonso will come too?  
(with *think*)

### 3.4 Variable binding

- A pronoun in a sentence-initial *if*-clause can be bound by a quantifier in the main clause:

(30) If her<sub>1</sub> child is late from school, every mother<sub>1</sub> is upset. (Bhatt and Pancheva)

- Observe that a pronoun in a fronted *if*-clause can be bound by a lower operator in the case of CQs as well. In (31), a pronoun is bound by the wh-phrase:

(31) a. If her<sub>1</sub> child is late from school, which mother<sub>1</sub> gets upset?

≈‘Which mother<sub>1</sub> gets upset if her<sub>1</sub> child is late from school?’

b. If a relative of hers<sub>1</sub> dies, which actress<sub>1</sub> will inherit a fortune?

≈‘Which actress<sub>1</sub> will inherit a fortune if a relative of hers<sub>1</sub> dies?’

### 3.5 Intermediate Summary

- We have argued for a  $? > if$  theory of CQs (repeated:)

(32) *?>if Approach*

- (i) CQs are structures in which, despite surface appearance, a conditional is embedded under a question ( $? > if$ ); they are ordinary matrix questions.
- (ii) ‘if’ cannot connect a proposition with a question; it only ever connects a proposition with a proposition.
- The engine of the account is the hypothesis that *if*-clauses can undergo syntactic reconstruction; This hypothesis predicts correctly a host of correlations with known diagnostics for syntactic reconstruction
- By contrast, *if>?* accounts (repeated) do not predict the reconstructions effects

(33) *if>? approach:*

CQs are structures in which a question is embedded in the consequent of a conditional ( $if > ?$ ). ‘if’ (or whichever is the operator that builds conditional constructions) can compose a proposition with a question meaning.

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- This makes the semantic stipulations made by *if*>? accounts—whatever they are (lifting, context update)—unnecessary, or at least unmotivated by the phenomenon of CQs
- **What comes next:** an attempt to show that the semantic stipulations made by *if*>? accounts are not only unnecessary, but also harmful, unless some other stipulations are added to the theory.

## 4 No parallel ‘conjunctional/disjunctional questions’

- Consider the ungrammaticality of the following conjunctions and disjunctions:

(34) a. \* It's (both) raining and who will show up?

b. \* It's (either) not raining or who will show up?

- (34) suggest that *and* and *or* cannot compose a proposition with a question.
- But if grammar allows *if* to compose a proposition with a question, why doesn't it allow the same for *and* and *or*?<sup>9</sup>
- *if*>? analyses must somehow block the semantic machinery that works for CQs from applying here too

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<sup>9</sup>Sometimes *and* and *or* do seem to be able to connect a declarative proposition and a question, as in (35).

(35) a. John left town, and after all, why wouldn't he? (Lasersohn, 2024)  
 b. John is wrong, or is he not? (a reviewer, p.c.)

But these examples could be analyzed as containing two separate root sentences (orthography could be misleading), where *and* and *or* are in fact sentence-initial, discourse-level particles. We control against that possibility in (34) with the addition of *both* and *either*, which are known to mark the (sentence-internal) scope of conjunction and disjunction respectively (Larson 1985). If we add *both* to (35a) and *either* to (35b), the examples become bad.

Sentence-initial uses of *and* are abundant and well-documented, see Dorgeloh (2004); Bell (2007). Such uses of *or* are also common, but we are not aware of their mention in the literature, except for a short passage in Szabolcsi 2015:165. Since cases like (35) are outside the scope of this paper, we do not investigate them in any depth. But we point out that sentence-initial *and* (though not *or*) can precede a question only if the question is rhetorical. To wit, the sequence: *John left town. And did he get a new job?*, at least if uttered by one speaker, is bad if the question is genuinely answer-seeking (whereas removing *and* allows the question to be interpreted so). Indeed, the question in (35a) can only have rhetorical force.

- As mentioned in the introduction, Isaacs and Rawlins (2008), for example, devise a two-step dynamic procedure where CQs are interpreted as follows: first, the context is updated with proposition in the antecedent, and then the question in the consequent partitions that newly-created context.
- That theory (and other *if*>? ones), however, now requires further stipulations, whose nature are not clear to us, to block the same mechanism from applying in the case of conj/disjunction.
  - Because in dynamic frameworks, *and* and *or* have update semantics just like *if* (Heim 1983, a.o.).
- This is not a problem for our account; it is impossible to generate such structures, if connectives can only never connect a declarative with a question).
  - And movement of the first con/disjunct here from inside the question nucleus is ruled out because it would violate the Coordinate Structure Constraint.

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