Or what?
DGfS workshop on Questions in Discourse

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Goal of talk: give an account of the semantics and pragmatics of “or what” questions.

1 Did he send the letter, did he e-mail it, or what?
2 Are you coming to dinner or what?
3 Is he asleep or what?

Proposal: “or what” questions are regular Alternative Questions where “what” is an anaphoric pronoun.

• Antecedent: salient Question Under Discussion (QUD).

The larger agenda: the polar/alternative family of question types

The discourse function of questions in the polar/alternative family

Make explicit / reveal some alternative(s) in the existing QUD.

(Biezma and Rowlins, 2012)

“Alternative revelation” analysis.

Motivating examples:

(10) Context: A is making B, a guest, some breakfast.
A: Do you want milk in your cereal?
B: Yes, of course, I don’t want dry cereal??!

Puzzle: Where does this discourse go wrong?

A second example

(12) Context: A is a waiter, B and C are customers.
A: Ok, with your coffee, do you want milk or cream?
B: # No thanks.
A/C: (laughter)

Puzzle: Why was this response funny?

• Alternative question lists all the available alternatives.
• B’s response goes outside of the parameters of A’s question.
• (B politely making fun of A closing off the possibility of black coffee.)
• Could have asked:

(13) Do you want milk, cream, or what?

The confused cereal example

(11) Context: A is making B, a guest, some breakfast.
A: Do you want milk in your cereal?
B: Yes, of course, I don’t want dry cereal??!

Puzzle: Why was this response funny?

• Immediate QUD: What do you want in your cereal?
• Speaker A was assuming two alternatives, milk, and yogurt, but did not realize B would fail to infer the 2nd.
• A more cooperative version:

A: Do you want milk or yogurt in your cereal?

Question-question sequences

The core intuition:

(14) A1: What do you want to drink?
A2: Do you want some tea?
A2*: Do you want coffee or tea?
A3: Do you want coffee, tea, or what?

In question-question sequences, polar/alternative questions do not really ask a new/independent question!
The larger agenda

The discourse function of questions in the polar/alternative family

Make explicit /reveal some alternative(s) in the existing QUD.

(Biezma and Rawlins, 2012)

1. Polar questions non-exhaustively make salient a single alternative (the content proposition), out of potentially many in the QUD.
2. Alternative questions exhaustively list all alternatives in the immediate QUD.
3. Primary function is not to raise a new QUD.

How do “or what” questions fit into this picture?

- Evidence for or against the alternative revelation proposal?
- How can we explain the varied behavior of this question type?

Many potential reasons to choose certain alternative(s) to make reveal: (see also van Rooy and Safarova 2003)

- Speaker thinks revealed alternatives more likely. (A in cereal ex.)
- Speaker thinks B will not infer revealed alternatives. (Improved cereal ex.)
- Speaker has some reason to prefer overt alternatives. (Cf. van Rooy and Safarova)
- ...

N.b. reasoning roughly Gricean but, we assume, highly unconstrained.

A pre-theoretical characterization

Factors in the felicity of “p or what?”:

a. The speaker considers that p is a likely alternative. (Or that other, unmentioned alternatives are likely.)

b. The speaker is not completely sure that p is true or is pretty sure that p is true and looks for the addressee’s acknowledgement.

c. The speaker is especially interested in the content proposition, but doesn’t want to know about just that.

d. The issue raised is not typically new to the discourse.

Summary:

1. The speaker wants the hearer to choose between p and some other unmentioned alternatives.
2. The speaker has some “bias” towards the truth of the content proposition.

Data: the many uses of “or what” questions

Case 1: Information-seeking “Or what” questions

(16) But as the Q&A session after the speech makes clear, the audience members have not been fantasizing about the Jetsons, Blade Runner or The Fifth Element. They have more pragmatic considerations on their minds. “Does it have legal clearance for California roads?” “Is the wing retraction mechanism manual, hydraulic or what?” (COCA)

(17) And the question is [is] does that mean when you get married your marriage ends up being better, or what? (COCA)

(18) Embedded: At first, Miina couldn’t tell whether the boy was playing a trick on her, or was drunk, or what. (COCA)

1. OWQs can be used as information-seeking questions.
2. OWQs can be embedded, as with regular alternative/polar questions.
3. OWQs can have > 2 disjuncts.
Case 2: Rhetorical uses of “or what”

(19) Context: John just did something ridiculously stupid
   Alice: Is he an idiot or what?
   → Alice thinks John is stupid.

(20) Is he an idiot or not? / Alice thinks John is stupid.
(21) Is he an idiot?
   → Alice is biased towards J. being an idiot.

PolQ requires special intonation, expresses more surprise than “or what” version.

Case 2b: another rhetorical use.

(22) Clasping Charlie’s shoulder, Alice pointed to the dog. “Is he the most adorable thing you’ve ever seen or what?” (COCA)

(23) Jesus, is it nine thousand degrees in here, or what? I feel like my insides are boiling. (COCA)

“Or what” can productively be used rhetorically, unlike other members of the family. (But cf. negative polar questions.)

Case 3: Cornering in alternative questions

Cornering is the effect of forcing the addressee:
   a. to disclose information (if s/he was withholding it) or
   b. to make a decision by choosing amongst the alternatives (if s/he is in such position).

PolQVNs are prototypical cornering questions, and it seems that orQs may also serve such purpose.

(27) A is holding a can of beer in his hand
   A: Do you want a beer?
   B: (…) 
   C: Do you want a beer or not?

(28) A is holding a can of beer on his hand
   A: Do you want a beer?
   B: (…) 
   C: Do you want a beer or what?

“Or what” can be productively used in cornering contexts, with a similar meaning to “or not” PolQs.

Generalizations: distributional properties

- “or what” must be the last disjunct.
- “what” is the only allowed “wh”-item. (Return to this later.)
- orQs take list closure intonation.
- orQs freely embed.
- “or what” productively follows any number of disjuncts > 1.

Except for ordering restriction, and the content of the final disjunct (“what”), orQs are structurally ordinary alternative questions.

Central question

Why and how do alternative, polar, and “or what” questions cut up the space of questioning?

Generalizations: semantics & pragmatics

(30) Generalizations
   a. orQs have uses parallel to other alternative questions:
      i. Information-seeking questioning with ≥ 2 alternatives.
      ii. Cornering the addressee. (‘or not’ Qs in particular.)
   b. orQs also resemble polar questions:
      i. Leave the full set of options open.
      ii. Speaker has some bias towards content proposition(s).
      iii. Can be productively used as first move in a discourse. (Unlike ‘or not’ Qs.)
   c. But, have rhetorical uses lacking in other types.
Agenda for background section

- Background on the QUD.
- Sketch of our analysis of polar/alternative questions.

Alternative vs. polar questions and the QUD

Reminder — the core intuition:

(31) A₁: What do you want to drink?
A₂: Do you want some tea?
A₃: Do you want coffee or tea?
A₄: Do you want coffee, tea, or what?

In question-question sequences, polar/alternative questions do not really ask a new/independent question!

QUDs

Questions Under Discussion (QUDs)

Discourse is structured around answering/addressing questions that are currently under discussion. These questions may be implicit.

(Roberts 1996; Ginzburg 1998; Büring 2003; Beaver and Clark 2008; Farkas and Bruce 2010; Rawlins 2010a; Ginzburg to appear; a.o.)

QUDs and context

QUDs and context
Questioning happens against the background of a Searlean common ground/context set type representation. (Or some more articulated information state representation.)

Context set: set of worlds that discourse participants are mutually/publicly agreed that they could be in.

See previous cites, as well as Roberts 1996; Groenendijk 1999; Büring 2003; Guerzoni 2003; Rawlins 2008; Groenendijk and Roeofven 2009 a.o.

Hamblin’s view on questions

Hamblin semantics

Questions are (semantically) sets of alternative propositions, corresponding to answers.

(Hamblin 1958, 1973; Karttunen 1977)

Of course see also Groenendijk and Stokhof 1984, 1997; Groenendijk and Roeofven 2009 a.o.

(Background) Constraints on moves and QUDs

Some (informal) constraints on hierarchical discourse structures, widely assumed in some form. (Roberts, 1996)

(33) Relevance of assertions
An assertion must be address (be relevant) to the immediate QUD.

(34) Relevance of questions
A question must be aligned/congruent with the immediate QUD. (Or start a new line of questioning.)

(35) Non-triviality
The immediate QUD must have at least two conversationally viable alternatives. (Cf. Beaver and Clark’s Current Question Rule.)
These are the two alternatives making up the IQUD. Every world in the context set makes one of the alternatives.

Alternative questions

Hamblin disjunction

Disjunction involves taking the union of sets of propositions.

Further ingredient: disjunction in alternative questions is Hamblin disjunction. (von Stechow, 1991; Roelofsen, 2008; Pruitt and Roelofsen, 2010)

- Build a set of alternative propositions from disjuncts.

Summary:

- Alternative questions list all and only the alternatives in the current QUD, without changing it.
- The current QUD must have at least two viable alternatives.
- The current QUD must exhaust the context set.

Polar questions

The classical view: polar questions present a positive and negative alternative. (Hamblin, 1973; Groenendijk and Stokhof, 1984)

- Standard account of polar questions

Where \([A]\) is \([Q_{pol}]) = \{\lambda w . A(w), \lambda w . \neg A(w)\}

(Hamblin 1973 p. 50)

Hard to reconcile with the question-question sequence data!
Polar questions

Our proposal

Polar questions denote a singleton set containing the content proposition, and carry \([Q]\).

- Singleton semantics: Roberts 1996. See also Pruitt and Roelofsen 2010 in their highlighting dimension.
- Similar ideas: Gunlogson 2001; Farkas and Bruce 2010; Rawlins 2008.
- History: classical accounts have been misled by "yes" and "no", which themselves are not answers at all and have a much more complex behavior than expected.

Requirements on \(c_{alt}\):
1. \(c_{alt}\) have a closure operator at LF (indicated by falling intonation)
   - \(c_{alt}\) present an exhaustive list.
   - A response to \(c_{alt}\) consist only of the propositions provided by the disjuncts.
2. \(c_{alt}\) do not have falling intonation and hence do not have a closure operator at LF.
   - \(c_{alt}\) present a single non-exhaustive alternative.
   - Responses to \(c_{alt}\) involve accepting/rejecting the content proposition.

Pragmatics:
- \(c_{alt}\) require that the most salient QUD align with the mentioned alternatives.
- \(c_{alt}\) only provide a single alternative that must be present in the QUD.
- Question-question sequences follow directly.
- QUD may be inferred, not overt.
- Classical use of polar questions: special case where (possibly inferred) QUD supports two opposite alternatives.
- Many other differences follow... Biezma and Rawlins 2012

Bundling of alternatives

A further piece: questions can 'bundle' alternatives that are separate in the immediate QUD, into a single alternative
- "or not" questions — negative alternative often bundles many options together.
- (Assumption: "not" disjunct involves TP ellipsis)

Other cases of bundling:
(48) What do you want to eat? Do you want something vegetarian or meat?
(49) What do you want to eat? Do you not want meat?
Cornering in “or not” questions

- **ALTQvNs** are composed of opposite alternatives.
  - (cf. classical account of polar Qs.)
- **ALTQvNs** do not have sisters.
- **ALTQvNs** can only be the last question in a sequence of questions.

Analysis of “or what” questions

owqs: Proposal

1. **owqs** are **AltQs**.
2. **owqs** have a discourse pronoun, “what” that is anaphoric to a previous (salient) QUD.
3. Pragmatically they can behave like **AltQs** or like **PolQs**...
   - Whether they behave like **AltQs** or **PolQs** depends on the status of the alternatives introduced by the pronoun “what.”

More technically (in Bühring’s notation):

\[(\text{what}_i)^{\text{UP}}_i = \text{UP}\]

(51) **d-tree**: *(Big Question: What do you want to drink?)*

- Do you want coffee or what?

   - Because it is an **AltQ**, must be aligned with implicit IQUD.
   - Because “what” is anteceded by move \(i\), picks up extra implicit alternatives from same IQUD.
   - Hamblin disjunction \([\vee]\) — composition of pronoun with overt disjuncts.
   - : re-asks IQUD, while making a single alternative explicit.
   - Like our analysis of **PolQs**, but still semantically provides an exhaustive alternative set.

The alternatives provided by “what”

1. The alternatives provided by the pronoun “what” are **unknown**
   - Speaker does not know the full set of alternatives.
   - Speaker does know the full set of alternatives, but chooses to list only some of them.
   - Speaker knows the full set of alternatives, and uses an **owq** to list all of them. Return to this later.

2. The alternatives provided by “what” are **known**
   - Speaker acts like **AltQs**, but with a bias, triggered by the speaker decision to spell out some alternatives over others.

Subcase: Several different alternatives

(56) **Freshman**: It was so frustrating! My advisor wouldn’t help me decide which classes out of the 8 I was trying to choose from!

**Friend**: So, did you take semantics, theatre, or what?

Subcase: The only other alternative (in salient QUD) is —cornering-like uses

(55) **A**: I’m leaving right now, are you coming or what?

Interlude: why “What”?

Why “what”?

- (May be somewhat grammaticalized...)
- Rawlins 2010b: “what” in “what if” questions — anaphoric to QUD.
- “What” is the wh-pronoun generally used when reference is abstract entity. (Baker 1986; Artstein 2002; Rawlins 2008)
- E.g. echo question:

(56) **John** said **what**? /#who
Interlude: why “What”?

Similar pronoun choice in Spanish, Italian. Italian:

(57) Sei malato, o cosa?
   is sick/crazy, or thing?
   ‘Is he crazy, or what?’

Italian, ‘cosa’ is the pronoun used for echoing. (N.b. some complications suppressed.)

(58) Gianni pensa cosa? / ‘che’?
    Gianni believe thing!
    ‘Gianni believes what?’

Cornering

(59) Estás loco, o qué?
    arc.2.sg crazy, or what?
    ‘Are you crazy, or what?’

Spanish, ‘qué’ is the pronoun used for echoing.

(60) (4) dijo qué?
    he said what?
    ‘He said what?’

Cornering in different ways

(61) John: I’m leaving, are you coming or what?
(62) John: I’m leaving, are you coming or not?

Similar, but different:

1. Other question can follow AltQVNs, but other questions can follow OWS.

   (63) John: I’m leaving, are you coming or not?
   Jill: (…)
   John: #Are you going to visit your aunt?

2. Open issue must be closed before proceeding to another sub-alternative of big question.

   (64) John: I’m leaving, are you coming or what?
   Jill: (…)
   John: Are you going to visit your aunt?

With AltQVNs, open issue must be closed before proceeding to another sub-alternative of big question.

Rhetorical alternative questions

Rhetorical uses of “or what”

Focus in this talk on the first type of rhetorical question:

(66) Is John an idiot or what?    S thinks J. is an idiot.
    S does not expect an answer.

The puzzle: how to unify this rhetorical use with information-seeking uses?
Proposal: Rhetorical readings follow anaphoric account.

Redundant AltQs

Redundant AltQs have semantically identical disjuncts:

(67) Is John an idiot or is John an idiot?

• Rhetorical reading – striking similarity to rhetorical “or what” Qs.
• Proposal – they have effectively the same analysis.
• Detour: what is the analysis of redundant AltQs?
Redundant alternative questions cont’d

More general instances of redundant:

(68) Is he crazy or is he out of his mind?
(69) Is he crazy, is he out of his mind or what?
(70) Is he crazy, is he practicing to be part of a circus or what?

Rhetorical questions in general

What are rhetorical questions?
- Starting point: Caponigro and Sprouse 2007: “a question is interpreted as a rhetorical question when its answer is known to the Speaker and the Addressee”
- Cf. Guerzoni 2003: a question is biased/rhetorical when its presuppositions exclude one or more answers relative to the context.
- (See also Han 2000; Reese 2007 for other recent accounts.)

The pragmatic account of rhetorical questions

(71) Rhetorical questions (Caponigro and Sprouse 2007 ex. 26)
A RQ is an interrogative clause whose answer is known to the Speaker and the Addressee, and they both also know that the other knows the answer as well. An answer is not required, but possible. Either the Speaker or the Addressee can answer.

Redundant Alt Qs

What do redundant Alt Qs look like in an independently motivated analysis of Alt Qs?
- Will use Biezma and Rawlins 2012, though result is similar in any adequate analysis of Alt Qs.
Ingredients (reminder):
1. Alt Qs involve Hamblin-style disjunction (Rawlins, 2008).
2. [Q]H L L% intonation contributes “let-closure” (Zimmermann, 2000; Biezma, 2009).
3. QUD must exhaust local context set (Groenendijk, 1999; Isaacs and Rawlins, 2008).

Details:

(72) [Is J. and idiot or is he an idiot? W L L% C = \{w' | J. is an idiot in \w' \} = \{ \w' | J. is an idiot in \w' \}]
Singleton alternative set!

- Contribution of W L L%:
  defined only if QUD C = \{w' | J. is an idiot in \w' \}

(73) Exhaustivity constraint on the QUD: \forall \w \in C:\exists p \in QUD C : p(\w) = 1

Anti-singleton constraint?

Why would anti-singleton constraint not become invoked here?
- Idea: speaker signals rhetoricality via form of question?
- I.e. anti-singleton constraint is not a hard constraint, but rather a heuristic employed when hearer thinks speaker has intended an information-seeking constraint.
- Defeasible via inference – plausibly rhetorical.

Redundant Alt Qs: result

Summary
Redundant Alt Qs ask a (trivial / non-inquisitive) question and require that the input context entails the content proposition.
Presupposed d-tree:

(74) d-tree: ![Diagram of d-tree](image)

How to apply this analysis to “or what” rhetorical Qs?

Back to “or what”
Back to “or what”

Assumption: the implicit nodes in the previous d-tree can be generated.

Prediction

Anaphoric “what” can be anteceded by intermediate node!

(75) Is J. an idiot or what?

(76) d-tree for (75): (Big Question: What is J. like?)

i

j (Is J. an idiot?)

(77) Is J. an idiot or what?

(78) [Is J. an idiot or what? \text{Def.} w \rightarrow \lambda w. \text{J. is an idiot in } w\}

defined only if:

1. \{\lambda w. \text{J. is an idiot in } w\} is the entire QUD.
2. Every world in the context set makes \lambda w. \text{J. is an idiot in } w\ true.

Rhetorical “or what”

(77) (Big Question: What is J. like?)

j (Is J. an idiot?)

(78) [Is J. an idiot or what? \text{Def.} w \rightarrow \lambda w. \text{J. is an idiot in } w\}

Conclusions

Interpreting “or what” questions

“Or what” questions are another means of revealing alternatives in a salient QUD.

- Like Pot.Qs in that they reveal alternatives incompletely (except rhetorical case).
- Like Alt.Qs in that they are semantically an exhaustive alternative set. (And, have the structure of an Alt.Q.)
- Response strategies for alternative, not polar type.

Thought question: how can we satisfy the demands of an adequate formal pragmatics for revelation questions, with their interpretation in embedded contexts? (Especially Pot.Qs)

Modeling questions in discourse

Some larger-picture conclusions:

1. The classical approach to Pot.Q/Alt.Q/etc questions does not easily generalize outside of strict question-answer contexts.
2. QUD-based approaches allow explanation of “or what” questions’ varied behavior, and question-question sequences more generally.
3. Generative approaches to discourse allow us to build a predictive theory.
4. Much of discourse structure is covert and inferred only.

Summary table

<table>
<thead>
<tr>
<th>PotQ</th>
<th>AltQ</th>
<th>AltQ\text{vN}</th>
<th>owoQ</th>
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</thead>
<tbody>
<tr>
<td>Strictly QUD-aligned?</td>
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<tr>
<td>Exhaustive list as part of semantics?</td>
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<td>y</td>
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<td>Fully specified list?</td>
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<td>Excludes infinitive-type answers to QUD?</td>
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<tr>
<td>Necessarily binary?</td>
<td>n</td>
<td>n</td>
<td>y</td>
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</tbody>
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*Note: red box is most radical part of account, but crucial for distinguishing Pot.Qs and owoQs!*

Let’s look at how the table can be filled in (\text{strictly aligned?})

Embodied polar questions

- Classical analysis is a better fit for treatment of embedded questions!
- Challenge is not technical, but motivational (see next slide).
- Three types of evidence:
  1. Embedded questions under dubitations (Karttunen/Huddleston).
  2. Unconditional/conditional adjuncts with question marking (Gareen, Rawlins).
  3. Embedded polar-ish “if”-clauses (Eckardt).
- Alternative approach: multidimensionally keep both denotations around (Rawlins, 2008; Pruitt and Roelofsen, 2010).

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IQUD, full definition

See Büring 2003 for background definitions we are assuming.

(79) Where \text{M} is a move:

(i) IQUD(M) = IQUD(M (M) if there is an immediately dominating move \text{M} (that is not a constituent question)
(ii) IQUD(M) = [M]^{w i t h}_m (if \text{M} is a constituent question)
(iii) IQUD(M) = [M]^{l i e}_m (if there is no immediately dominating move)

Felicity requirement for (i): IQUD(M) must be congruent with [M]^{w i t h}.

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- Alternative approach: multidimensionally keep both denotations around (Rawlins, 2008; Pruitt and Roelofsen, 2010).
Embedded polar questions

(80) **Anti-singleton constraint schema** For any Q-embedded verb V:

\[ [[V [\alpha]]] = 1 \] is defined only if \[ [[[Q \alpha]]] > 1 \]

(81) **Anti-singleton coercion**

If \([[[\alpha]]] = 1\), where \(\alpha\) is of type (st) and denotes \(\{\alpha\}\), then \(\alpha\) can be coerced (as a last resort) into the denotation \([\lambda w. A(w), \lambda w. \neg A(w)]\).

Bibliography I


Bibliography II


Bibliography III


Bibliography IV


Bibliography V


