Biased Questions

William A. Ladusaw

28 May 2004
What’s a Biased Question?

A biased question is one where the speaker is predisposed to accept one particular answer as the right one. (Huddleston & Pullum 2002:1989)

1. Did John *lift a finger* to help you?

   Speaker asks: Did John help you?
   Speaker suspects: John didn’t help you.
What is bias?

How do we model bias in a formal account of the content and context effects of questions?
How does bias arise?

- Inference based on what is done
- Inference based on what is said (semantic content)
- Inference based on form
How should we understand the biasing effect of polarity items in questions?

What does that tell us about (anti-)licensing?
“I believe that if we want to describe the distribution of polarity items in questions as anything but random, we must consider the assumptions of the speaker—more specifically, negative and affirmative assumptions about what is being questioned and consequently expectations of the speaker concerning the answer.” (p. 55)

Background assumptions

Interrogative expressions v. Question acts

Issue analysis of the content of interrogatives and the CCP of question acts.

“Presupposition”

CG-presupposition v. prior disposition
Rhetorical Questions

A diversion

2. [A is explaining to B why she decided to bring a chicken dish to a potluck.]

I don’t like fish and who eats red meat/pasta these days? So I bought chicken.
Context structure

• Common ground: *mutually accepted information about ‘the world’*

• Context set (information state): the set of worlds consistent with the common ground.
Classical Assertion

In asserting a proposition $p$, the speaker proposes to the addressee that the context set be reduced to those worlds in which $p$ is true.

Assertions are CS-reducers.
Propositions are the content of assertions.
Propositions are tests on worlds (and return the world as the value true.)
Classical Presupposition

A (CG-)presupposition is a condition on the context set which must be met for the expression to have an acceptable context change potential (CCP).

Expressions which carry presuppositions have CCPs which are partial functions, defined only over contexts in which their presupposition is satisfied by the CG.

Accommodation.
Modeling Questions

After Groenendijk 1999.

In posing a question, the speaker raises an issue in the context for the addressee to resolve.

The result of resolving the issue is a reduction of the context set.

What is the CCP of a question?
Issues partition the context set

A partition of a set is a division of it into mutually disjoint subsets whose union is the original set.

\[ \{a, b, c, d, e\} \Rightarrow \{\{a\}, \{b, d\}, \{d, e\}\} \]

The partition is defined by an equivalence relation on the original set.

A question partitions the context set into cells of worlds in which the issue raised by the question is resolved in exactly the same way.
An example

Is it raining?

Partitions the context set of worlds into two cells, one containing all the worlds in which it is raining and the other containing all of the worlds in which it is not raining.

Two ways of resolving the issue; two possible answers.
Classical Questioning

In raising an issue $I$, the speaker proposes to the addressee that the context set be reduced to one of the cells in the partition induced by $I$: viz, those worlds in which the resolving proposition $p$ is true.

Questions are CS-partitioners.
Issues are the content of questions.
So what is an issue?

Issues are functions on worlds.

(But what are their values?)

How is it related to a proposition?

What determines the possible resolutions of an issue?

What structure is there on possible resolutions?
• Whether it’s raining \{1, 0\}
• Whether you want coffee or tea \{coffee, tea\}
• Who ate the pizza \mathcal{F} (person-entities)
• Where John lives \in (places)
• How Maria solved the problem ??
• Why Karin left early ??
An issue is a function from a world to the resolution of the issue in that world.

An issue \( I \) defines an equivalence relation \( R \) on the context set:

\[
R = \{ \langle x, y \rangle : I(x) = I(y) \}
\]

The CCP of a question is (at least) the partitioning of the context set by the relation determined by the issue that is the content of the question.
An Interlude

Propositions resolve issues.

Issues are sets of propositions. (Cf Hamblin, Karttunen)

A proposition is an issue plus a resolution.

Cf. focus and background analysis; alternative semantics
Assertion as the limiting case: commitment to bias

How is

“offering a proposition for inclusion in the common ground”

related to

raising an issue and committing to a resolution of it?
Taking Stock

*Biased questions*

Biased questions are questions. They therefore raise an issue in the context.

They are biased because in raising the issue, the speaker conveys that she is not neutral with respect to the resolution of the issue.

- She favors a cell (group?) in the partition.
- She favors a resolution (group?).
What is the bias?

Not a CG-presupposition.

The bias would render the question trivial (or infelicitous).

“Speaker presupposition”? 

Not really a commitment.

Prior disposition. Consistent with alternative resolution.
Questions with Presuppositions

- Does John realize that you went to Chicago last week?
- Have you stopped eating pasta?
- How did you go to Chicago last week?
- Why did you go to Chicago last week?

Rejecting the presupposition rejects the question and returns the context to the *status quo ante*.

Rejecting/ignoring bias in a question doesn’t.
Explaining Bias in Questions

Bias is an inference about the speaker (prior) disposition about the resolution of the issue raised.

So the possible biases are determined by the issue raised.
To explain the bias in a question, we look for the grounds for an inference of the form:

Previously **Sp disposed-toward** $I(w_i) = \alpha$

How do we know which resolution(s) constitute the bias?

Why do we bother to derive the inference?
The inference could arise as accounts of any (or all) of:

- Why did she do that?
- Why did she raise that issue?
- Why did she raise that issue in that way?
Returning to the Example

3. Did John help you with the party?

   Because Sp raised the issue of whether John helped, Sp doesn’t consider the answer obvious.
   
   Baseline Bias?

4. Did John lift a finger to help you with the party?

   How is the issue raised here related to the issue raised in (3)?
   
   Same issue: where does the bias come from?
   
   Different issue: is the bias due to the difference in the issue?
(4) and (3) raise the same issue. They have exactly the same answer conditions.

But (4) contains a negative polarity item, *lift a finger*, known to be associated with “negative” statements.

Using a NPI to formulate the issue invokes the “negative range of resolutions”. [OBSCURE]
The bias is explained by the desire to account for why this (unlicensed) avoidable npi occurs.
Different Issue Account

(3) raises the issue of whether John helped.

The issue contains an implicit standard for what counts as help. How many worlds go into which cell of the partition depends upon where that cross-over point is set.

(4) raises a different but related issue. It is related because every world in the “Yes” cell of (3) is also in the “Yes” cell of (4).
The contribution of *lift a finger* is to shift the cross-over point so that some of the worlds which would be “No” worlds in (3) are “yes” worlds in (4).
But…

Why would the speaker go to the trouble of raising that issue rather than the one raised in (3)? [Paradigmatic step]

More words.
More likely to get a “Yes” answer.

Calls attention to the worlds which are shifted from “No” to “yes”.

But why should that result in a “No” bias?
Krifka – van Rooy Account

Let us assume that the analog of informativity in assertion is “entropy” in questions. That is,

Assume that the speaker poses maximally entropic questions: questions whose answers she considers equally likely or informative.

So…by shifting worlds from the “No” to the “Yes” cell, she is in effect “giving odds” to the “Yes” cell.
If the speaker still considers the cells equally likely, then the speaker is biased toward the “No” cell.
So the NPI gives rise to the bias …

entirely due to its semantic contribution to formulating the issue.

(4) is a “question about a minimal value” and (3) is not.

How much did John lift a finger to help you?
Beyond NPIs

The Krifka-van Rooy account gives a good explanation of the biasing effect of minimal value NPIs.

But there are other kinds of “NPIs” and other kinds of “Pis” as well.

How general is this entropic question assumption?

Can bias get conventionalized?
Presuppositions of WH-questions

It is sometimes said that:

Who came to your party?

presupposes that

Someone came to your party.

But that can’t be CG-presupposition without rendering a negative answer impossible. (Which it isn’t.)
Compare:

Who came to your party?
Did anyone come to your party?

Who wants anchovies on their pizza?
Does anybody want anchovies on their pizza?
Does ANYbody want anchovies on their pizza?
Who is that lady?

Is that the lady who lives next door?
Connection to Relevance/Speaker’s Goal

What time is it?

Is it 5 o’clock?

Does the speaker think that it’s 5 pm?

As a way of finding out what time it is, the specific question is biased.

Relation between expressed issue and topical issue (QUD).
Negative Polar Questions

Could polar questions of positive and negative forms ever differ in entropy?

   Did John come to the party?
   Did John not come to the party?

These raise the same issue, don’t they?

Why is the second one “marked”? 
Does John eat meat?
Does John not eat meat?

Does John drink beer?
Does John not drink beer?
Bias in (Inverted) Negative Polar Questions

Didn’t John come to the party?

Doesn’t John eat meat?

Doesn’t John drink beer?

All of these are biased toward the positive answer.

Speaker has a prior disposition toward the positive resolution.
Romero 2003

Polar questions with preposed negation necessarily carry the epistemic implicature that the speaker believed or expected that the positive answer is true. Preposed negation polar questions are ambiguous between a reading double-checking \( p \) and a reading double-checking \( \neg p \).
We’re planning a potluck. Under discussion is whether we will have enough vegetarian food. Speaker asks:

Doesn’t John eat meat?

“checking p” “still reading”
We’re planning a potluck. Under discussion is whether we will have enough vegetarian food. [Addressee expresses concern that we won’t given that nearly everyone coming is a vegetarian.] Speaker asks:

Doesn’t John eat meat?

“checking ¬p” “anymore reading”
Supposedly,

The use of a PPI versus an NPI disambiguates the question towards the \( p \)-question reading and the \( \neg p \)-question reading respectively.

Didn’t John lift a finger to help you?

Hasn’t Mary contributed a thin dime to the coffee fund?
Didn’t John lift a finger to help you?

What issue is raised here?

whether he helped, with odds given to helping

What does the inverted negative contribute?

(Sp disposed toward positive resolution.)

What does the NPI contribute?

(Ø disposition toward the negative resolution.)
Moving away from minimum values

Isn’t he all that interested in the job?

Haven’t you (ever) been to Chicago?

Didn’t he talk to anyone?
Is it 3 o’clock yet?

Isn’t it 3 o’clock yet?

Is it already 3 o’clock?

Isn’t it already 3 o’clock?
Types of polarity items

(After Israel 1996)

• Wideners: *any, ever*

• Low scalar emphatics: *a drop, a wink, so much as, at all*

• High scalar understating: *much, long, any too, all that*

• High scalar emphatics: *scads, totally, as hell, far Xer*

• Low scalar understating: *a little bit, sorta, a tad, rather*

• Perspectivals: *yet, already*
Types of Questions/Interrogatives

Polar  (positive, negative, tag, rising declarative)
WH-argument  (who, which, what)
WH-adjunct  (where, when, how)  (Referentially presuppositional)
Why  (propositionally presuppositional)
Alternative questions
The structural nature of polarity licensing

Core cases with c-command of a semantic licensor. Intervention effects.

In what sense are polarity items structurally licensed in any of these questions?

Or do the accommodating implicatures of bias arise only when they are recognized as unlicensed?
Conclusion

Bias as disposition rather than commitment, individual rather than shared.

Potentially operational in declaratives/assertions as well, though obscured.

Attractiveness of the general information-theoretic assumption (suggesting universality).

Reconcile with the (possible) conventionality of negative polar questions (though suspiciously wide-spread).
By contrast to structurally sensitive PI licensing, complex interactions and deeply murky data. (Linebarger’s Revenge)