Simplifying the Evidential Condition on asking polar questions*

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0 Overview

Classic accounts of polar question semantics predict the polar questions in (1) through (3) to all denote the same set of answers in (4) (Hamblin, 1973; Groenendijk & Stokhof, 1984)

(1) *Positive polar question* (PPQ)
Did Mo sing?

(2) *Low negation question* (LNQ)
Did Mo not sing?

(3) *High negation question* (HNQ)
Didn't Mo sing?

(4) {*that Mo sang*, *that Mo didn't sing*}

But they have different distributions (e.g. Büring & Gunlogson, 2000; Sudo, 2013; Domaneschi et al., 2017)

Three goals

1. Simplify **one** of the generalizations about the felicity conditions on asking positive and negative polar questions
   ⇒ The *Evidential Condition* does not apply to high negation questions; only PPQs and LNQs.
2. Show that the simplified Evidential Condition **can** be explained via general principles of markedness and information structure while retaining a simple $\{p, \neg p\}$ semantics
3. Consider implications for polar questions semantics

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Outline

Section 1: Review the data motivating the Evidential Condition on polar questions
Section 2: Argue against the motivation for including high negation questions
Section 3: Account for the remaining data
Section 4: Conclusion

1 Review of Evidential Condition

The felicity of a polar question is affected by contextual evidence for its answers.

(5) *Contextual evidence for p* (based on Büring & Gunlogson 2000; Goodhue & Wagner 2018)
   a. *Contextual evidence*: The evidence is mutually available to the participants in the current discourse situation
   b. *for p*: The evidence, considered in isolation, would allow participants to infer p, or it at least increases the likelihood of inferring p
      (i) *considered in isolation*: ignoring beliefs that conflict with/contradict p

PPQs appear in contexts with evidence for the positive answer like (6) and (7).

(6) *Positive evidence*
A has been a windowless office all day and has **no idea** what the weather is. B walks in with a wet umbrella and raincoat. A says:
✓Is it raining? # Is it not raining? # Isn't it raining?

(7) *Positive evidence*
A previously believed that Mo is right-handed. But then A and B see Mo writing very well with her left hand. A says:
✓Is Mo left-handed? # Is Mo not left-handed? # Isn't Mo left-handed?

PPQs also appear in evidentially neutral contexts (= no evidence for p or for $\neg p$) like (8).

(8) *Neutral evidence*
A just got home and is looking for her roommate Mo. She has **no idea** whether Mo is home or not, but their mutual roommate B is, so A says to B:
✓Is Mo home? # Is Mo not home? # Isn't Mo home?

LNQs and HNQs are both acceptable in negative evidence contexts (= evidence for $\neg p$) like (9) and (10).[1]

[1]HNQs have an independent requirement that the speaker is biased for the prejacent embedded under negation,

(9) *Negative evidence (+ Speaker bias for p)*
A had been pretty sure that Mo's house is blue. Then B says, "Meet me at Mo's house, it's the red one down the street." A says:

Is Mo's house blue? ✓Is Mo's house not blue? ✓Isn't Mo's house blue?

(10) *Negative evidence (+ Speaker bias for p)*
A previously believed that Mo is right-handed. But then A and B see Mo writing very well with her left hand. A says:

Is Mo right-handed? ✓Is Mo not right-handed? ✓Isn't Mo right-handed?

(11) shows that HNQs, but not LNQs, are acceptable with neutral contextual evidence.

(11) *Neutral evidence (+ Speaker bias for p)*
B tells A that she is going to see Radiohead in concert. A previously heard that the opening act will be Blur. A: Oh yeah, I heard about that show.

✓Is Blur opening? # Is Blur not opening? ✓Isn't Blur opening?

The above data can be summarized as follows:

Table 1: Evidential generalizations for polar questions (Büring & Gunlogson 2000, p. 11)

Contextual evidence	Relevant exs.	PPQ	LNQ	HNQ
Positive evidence	(6), (7)	✓	#	#
Neutral evidence	(8), (11)	✓	#	✓
Negative evidence	(9), (10)	#	✓	✓

The evidence is widely taken to support the felicity conditions in (12) (Büring & Gunlogson, 2000; Sudo, 2013; Domaneschi et al., 2017; van Rooij & Šafářová, 2003; Northrup, 2014; Trinh, 2014; Krifka, 2015; Roelofsen & Farkas, 2015; AnderBois, 2019)

***Evidential Conditions on asking polar questions* (Büring & Gunlogson 2000; p. 12)**

(12) For PPQs, let p be the prejacent/radical of the question
For LNQs and HNQs, let p be the proposition embedded under negation

a. *PPQ condition*
PPQs require there to be no evidence against p (*neutral or positive evidence*)

b. *LNQ condition*
LNQs require there to be evidence against p (*negative evidence*)

c. *HNQ condition*
HNQs require there to be no evidence for p (*neutral or negative evidence*)

which I'll return to below.

Beyond these Evidential Conditions, HNQs also require the speaker to be biased as follows (Sudo, 2013; Romero & Han, 2004; Frana & Rawlins, 2019; Goodhue, 2022b)

Speaker Bias Condition

(13) Let p be the proposition embedded under negation
HNQs require the speaker to have a preexisting, potentially private bias for p
LNQs don't require speaker bias for p[a]

[a]It usually goes unsaid, but PPQs don't require speaker bias either.

The HNQ Speaker Bias Condition in (13) is supported in part by examples like (14), in which A lacks a speaker bias and the HNQ is unacceptable, while the LNQ is acceptable.[2]

(14) *Negative evidence + No speaker bias*
A has been in a windowless office for the last eight hours. Given the local climate, A has **no idea** what the weather is. B walks in rubbing their hands together and stamping their feet, and says, "I hate the weather in this town!" A says:

Is it nice out? ✓Is it not nice out? # Isn't it nice out?

I won't give an account of the HNQ Speaker Bias Condition (13).

- All that is relevant here is the fact that the Speaker Bias Condition in (13) *exists*.
- (See accounts of speaker bias in e.g. Romero & Han 2004; Frana & Rawlins 2019; Goodhue 2022b,a; Tabatowski 2022)

Despite the widespread discussion of the Evidential Condition in (12), there is no agreed upon explanation (some discussions of it despair of giving an account)

In section 2, I make the **novel argument** that the HNQ Evidential Condition in (12c) dissolves under scrutiny

⇒ Only the PPQ Evidential Condition in (12a) and the LNQ Evidential Condition in (12b) will need to be explained

2 Evidence against the HNQ Evidential Condition

The HNQ Evidential Condition in (12c) was established as follows:

- (9) & (10) demonstrated that HNQs are **compatible** with negative evidence (evidence for $\neg p$)
- (11) demonstrated that HNQs are **compatible** with neutral evidence
- (6) & (7) showed that HNQs are **incompatible** with positive evidence (evidence for p)

[2](13) also explains why the HNQ was unacceptable in (8), but acceptable in (11).

Key claim

HNQs are **not** incompatible with positive evidence
⇒ The HNQ Evidential Condition in (12c) is false

2.1 Alternative explanations for HNQ incompatibility with positive evidence

2.1.1 Explanation via Speaker Bias Condition

(15), based on (Sudo, 2013, ex. (9)), is an elaborated version of (7). It is supposed to demonstrate HNQ incompatibility with positive contextual evidence

(15) (Let *rh* = *that Mo is right handed* and *lh* = *that Mo is left handed*.)
A believes that Mo is right handed (bias for $rh/\neg lh$).
Then A and B see Mo writing with her left hand (evidence for *lh* and against *rh*).
A says to B:

a. #Isn't Mo left handed? (HNQ-*lh*)

b. Isn't Mo right handed? (HNQ-*rh*)

There is contextual evidence for (15a)'s prejacent *lh*, and against (15b)'s prejacent *rh*, so the HNQ Evidential Condition in (12c) **correctly** predicts (15b) to be felicitous, and (15a) to be infelicitous

⇒ Sudo (2013) claims that such examples support the HNQ Evidential Condition in (12c)

Alternative explanation based on the HNQ Speaker Bias Condition

The speaker is not biased for the propositional prejacent of (15a) *lh*, but is biased for the prejacent of (15b) *rh*
⇒ The Speaker Bias Condition (13) **correctly** predicts (15b) to be felicitous, and (15a) to be infelicitous

Thus (15) can be explained by both the Evidential Condition (12c) and the Speaker Bias Condition (13). Which explanation is right?

The Speaker Bias Condition (13) is favored by parsimony:

- (8) and (14) motivate the Speaker Bias Condition (13) independently of the Evidential Condition (12c)

(8) *Neutral evidence + No speaker bias*
A just got home and is looking for her roommate Mo. She has **no idea** whether Mo is home or not, but their mutual roommate B is, so A says to B:

✓Is Mo home? # Is Mo not home? # Isn't Mo home?

(14) *Negative evidence + No speaker bias*
A has been in a windowless office for the last eight hours. Given the local climate, A has **no idea** what the weather is. B walks in rubbing their hands together and stamping their feet, and says, "I hate the weather in this town!" A says:

Is it nice out? ✓Is it not nice out? # Isn't it nice out?

- Since the Speaker Bias Condition (13) is independently needed, using it instead of the HNQ Evidential Condition (12c) to explain (15) is more parsimonious.

2.1.2 Explanation via question motivation

To independently motivate the HNQ Evidential Condition (12c), evidence for it that cannot be explained by the Speaker Bias Condition (13) must be found

Required: A context with both speaker bias for p *and* contextual evidence for p in which the HNQ is infelicitous.

(16) A believes Mo is left handed (*lh* bias). Then A and B see Mo writing with her left hand (*lh* evidence). A says:

a. #Isn't Mo left handed? b. #Is Mo left handed?

(16a) is infelicitous, as predicted by the HNQ Evidential Condition (12c).

Alternative explanation based on question motivation

A already believes *lh* and the evidence supports *lh*, so A has no need to ask this question[a]

This explanation for (16a) is further supported by the infelicity of the PPQ in (16b), a fact that can't be explained by the Evidential Condition (12)

[a] Domaneschi et al. (2017, p. 8) similarly point out that p bias + p evidence results in lack of motivation for a question

The HNQ Evidential Condition (12c) is again rendered superfluous.

2.2 HNQs can be compatible with positive evidence

Consider another context that features p bias and p evidence.

(17) (Let r = *that it is raining*)
A and B are in the windowless lab.
B: Want to eat lunch outside?
A: That would be nice, but I think I heard that it's raining. (bias for r)
B: Oh.
Just then, C walks in, his shirt a little wet (evidence for r). A says: Hey C,

a. Isn't it raining? b. Is it raining? c. #Is it not raining?

In (17), there is positive evidence, but the HNQ is *felicitous*, contra the predictions of the HNQ Evidential Condition in (12c)

But take away the speaker bias in (17), and then the HNQ in (17a) is infelicitous, while the PPQ in (17b) is still fine.[3]

2.3 Revising the Evidential Condition on polar questions

There is no HNQ Evidential Condition

(15) and (16) can be explained independently of the HNQ Evidential Condition (12c)

(17) contravenes the HNQ Evidential Condition

HNQs don't necessarily reject evidence for p

The HNQ Evidential Condition in (12c) can be discarded

Table 2: Revised evidential generalizations for polar questions

Contextual evidence	Relevant exs.	PPQ	LNQ
Positive evidence	(6), (7)	✓	#
Neutral evidence	(8), (11)	✓	#
Negative evidence	(9), (10)	#	✓

[3]Interestingly, if we keep both the speaker bias for r and the evidence for r, but remove A and B's conversation, I find the HNQ in (17a) to be much worse. Ivano Ciardelli raised a similar example with me at the Amsterdam Colloquium in 2022, and he agreed that adding some prior discussion about p like in (17) made the HNQ acceptable. I am not sure yet why this is.

Revised Evidential Conditions on asking polar questions

(12) For PPQs, let p be the prejacent/radical of the question
For LNQs, let p be the proposition embedded under negation

a. *PPQ condition*
PPQs require there to be no evidence against p (*neutral or positive evidence*)

b. *LNQ condition*
LNQs require there to be evidence against p (*negative evidence*)

This dissolves a puzzle raised by Büring & Gunlogson (2000) and echoed by Sudo (2013): They seek—but by their own admission fail to find—a satisfying unified account of the Evidential Conditions on PPQs, LNQs, and HNQs.

If my line of argument is correct, the search for a unified account that includes HNQs can be abandoned.

This is good news for those who have sought to explain the Evidential Condition, and have either ignored HNQs outright, or treated them identically to LNQs (Northrup, 2014; Trinh, 2014; Roelofsen & Farkas, 2015; Tabatowski, 2022)

3 Giving an account with a simple $\{p, \neg p\}$ semantics

3.1 Two choice points for polar question semantics

To give an explanation for the Evidential Condition, we need to figure out the roles of semantics and pragmatics, which includes settling on a semantics for polar questions.

Two choice points (among others):[4]

(18) *Symmetry*

a. A *symmetrical* semantics is one in which PPQs and LNQs have identical denotations,
e.g. PPQ = LNQ = $\{p, \neg p\}$

b. In an *asymmetrcal* semantics, they have different denotations,
e.g. PPQ = $\{p\} \neq$ LNQ = $\{\neg p\}$

(19) *Weight*

a. A *heavy* semantics includes semantically encoded pragmatic operators,
e.g. speech act operators, conversational/doxastic modals, attitude predicates

b. A *light* semantics lacks such operators,
e.g. sets of propositions, partitions, functions from answers to truth values

There are various conceptual reasons to make one choice or another about question semantics

[4]This division is inspired in part by discussion in Tabatowski 2022.

(Roelofsen, 2019).

Some have motivated a heavy, asymmetrical semantics *in part* by arguing that it enables an explanation for the Evidential Condition (Krifka, 2015, 2021; Tabatowski, 2022)

> In this section, I argue that it is **possible** to account for the Evidential Condition while maintaining a light, symmetrical semantics

I'll return to whether we **should** do so in section 3.5.

3.2 Account

I start with an answer set approach to question meaning

- $[\![\phi]\!] = p_{\langle s,t\rangle}$
- $[\![?]\!] = \lambda r_{\langle s,t\rangle}.\lambda q_{\langle s,t\rangle}.[q = r \vee q = \neg r]$
- A PPQ $?\phi$ and its corresponding LNQ $?\neg\phi$ have identical denotations, $\{p, \neg p\}$:

(20) $[\![?\phi]\!] = [\![?]\!]([\![\phi]\!]) =$
$\lambda r_{\langle s,t\rangle}.\lambda q_{\langle s,t\rangle}.[q = r \vee q = \neg r]\ (p) =$
$\lambda q_{\langle s,t\rangle}.[q = p \vee q = \neg p] =$
$\{p, \neg p\}$

(21) $[\![?\neg\phi]\!] = [\![?]\!]([\![\neg\phi]\!]) =$
$\lambda r_{\langle s,t\rangle}.\lambda q_{\langle s,t\rangle}.[q = r \vee q = \neg r]\ (\neg p) =$
$\lambda q_{\langle s,t\rangle}.[q = \neg p \vee q = \neg\neg p] =$
$\{\neg p, \neg\neg p\} = \{p, \neg p\}$

Using the above semantics, the revised Evidential Condition on polar questions in (12a) + (12b) can be explained in two parts:

1. Why are PPQs preferred when there is a lack of contextual evidence? (section 3.2.1)
2. Why does contextual evidence for p or for $\neg p$ force the use of PPQs or LNQs respectively? (section 3.2.2)

3.2.1 Explaining why a lack of contextual evidence forces the use of PPQ

Negation is marked (Horn, 1989): LNQs are morphosyntactically more complex than PPQs.

A preference for less complex expressions makes PPQs preferred to LNQs in evidentially neutral contexts (perhaps deriving from the maxim of manner, Trinh 2014; Roelofsen & Farkas 2015).

3.2.2 Explaining why contextual evidence for p or for $\neg p$ forces the use of PPQs or LNQs respectively

The intuitive idea

Contextual evidence raises a proposition p to salience. The speaker wants to ask the polar question $\{p, \neg p\}$. There's pragmatic pressure to formulate the question so that it acknowledges the salience of p; that is, polar questions are **anaphoric** to prior context.

There seems to be pressure for speakers to maximize relations between what they say and the context (Büring, 2016).

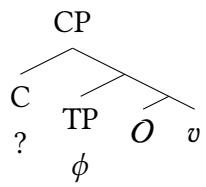
- Produce the strongest focus marking possible (e.g. Williams, 1997; Schwarzschild, 1999; Wagner, 2006)
- Maximize presuppositions (e.g. Heim, 1991; Percus, 2006; Sauerland, 2008; Schlenker, 2012)
- Use pronouns
- The force that contextual evidence exerts on the form of polar questions may be a corollary

Suppose that contextual evidence for a proposition p makes p more salient than $\neg p$.

- One way to capture this is to say that evidence for p introduces a propositional discourse referent for p
- Polar questions are in a sense anaphoric to these discourse referents (cf. *that*, *so*, *yes*/*no*, Krifka 2013).

To capture this, I propose that an operator O and a variable v can be adjoined to the TP of a polar question (cf. Rooth's (1992) ~ analysis of focus)

(22)



- v is a propositional anaphor that picks up the most salient proposition
- O imposes a presupposition

(23) $[\![\phi\ O\ v]\!]$ is felicitous only if $[\![\phi]\!] = v$

To see how this works, reconsider (6) and (14):

(6) *Positive evidence*
A has been a windowless office all day and has **no idea** what the weather is. B walks in with a wet umbrella and raincoat. ($\rightsquigarrow$ *that it's raining*)
A says:

a. Is it raining? b. #Is it not raining?

(14) *Negative evidence*
A has been in a windowless office for the last eight hours. Given the local climate, A has **no idea** what the weather is. B walks in rubbing their hands together and stamping their feet, and says, "I hate the weather in this town!" ($\rightsquigarrow$ *that it's not nice out*)
A says:

a. #Is it nice out? b. Is it not nice out?

Contextual evidence forces the use of a PPQ or LNQ, despite their semantic identity, because:
- the evidence makes p or $\neg p$ maximally salient, and
- O requires the TP to align with the salient proposition.

O is a specific instantiation of the more general requirement to **maximize contextual relations**.

What does it mean for a proposition to be more salient?

- If p and $\neg p$ have been mentioned or implied in the context, whichever was mentioned/implied more recently is more salient.
- If S has evidence for both p and $\neg p$, but the evidence for one is publicly available while the other is not, the publicly available is more salient.

The requirement to maximize contextual relations apparently outranks the requirement to use less complex expressions (otherwise, LNQs would never be used):

(24) Maximize Contextual Relations > Less Complex/Maxim of Manner

3.3 A prediction

Suppose negative alternative questions (NAQs) like *Is it raining or not?* are disjunctions of two polar questions that ultimately also denote $\{p, \neg p\}$ (predicted by the symmetrical commitment space semantics in Goodhue 2022a)

They should require evidence for both p and $\neg p$, since there are two TPs, each denoting one of these propositions.

NAQs are infelicitous discourse initially (25), but good when there is prior evidence cutting both ways (26) (Biezma, 2009; Biezma & Rawlins, 2012, 2017; Beltrama et al., 2020):

(25) A wants to ask B if B is coming to the party. A approaches B and says:

a. Are you coming to the party?
b. #Are you coming to the party or not?

(26) A: Are you coming to the party later?
B: Well, I do like parties…
A: Good, so you're coming then.
B: But I have a lot of work to do, and I have an early morning tomorrow…
A: So you're not coming?
B: But I made a resolution to do more social things…
A: Are you coming or not? (based on examples in Biezma 2009; Beltrama et al. 2020)

3.4 A challenge for the analysis so far

The analysis predicts that polar questions can be anaphoric to propositional discourse referents, however they are introduced.

E.g. in the protasis of conditionals.

(27) B: If Timmy did his homework, he can have a cookie.
a. A: That would surprise me. (*that = that Timmy did his homework*)
b. A: Did he do his homework?
c. A: # Did he not do his homework?

The absence of negation in the protasis of (27) renders (27c) infelicitous.

Cf. a conditional with a negated protasis:

(28) B: If Timmy didn't do his homework, he's in trouble.
a. A: That would surprise me. (*that = that Timmy didn't do his homework*)
b. A: Did he do his homework?
c. A: Did he not do his homework?

✓ The presence of negation in the protasis of (28) improves the LNQ in (28c).

✗ But the PPQ in (28b) seems to be equally good.

A potential explanation:

- The asymmetries in (27) and (28) have to do with the givenness of negation, not the requirements of O
- O is sensitive to maximally salient propositional discourse referents, and a DR arising from the protasis of a conditional is not maximally salient

Alternatively:

- Polar questions are about negotiating the truth of propositions for entry to the common

ground.

- What is relevant here is not just the salience of propositional DRs, but salient *evidence* for or against relevant propositions.
- We may think of this as a special collection of propositional DRs, the evidential DRs that are relevant for negotiating truth of p. $O\ v$ is sensitive only to these.
- Recency of salience and the public nature of the salience still matter, and are hallmarks of anaphoricity. I.e. this is not just about an evidential modal base, which can be private, old, non-salient information

Cf. Trinh 2014

- The point of departure for my analysis is the apparent anaphoricity of polar questions to prior context
- For Trinh 2014, it is moreso the notion of evidence itself, encoded as an evidential morpheme with a modal semantics
- While our analyses are technically different, the present conclusions drive my account closer to Trinh's (2014)

3.5 Polar question semantics: Evidence from embedding

It seems we **can** go symmetrical, but **should** we?

Recall: One motivation for going heavy, asymmetrical was because it seemed unclear how to account for the Evidential Condition (and other felicity asymmetries between PPQs and LNQs) otherwise (Krifka, 2015, 2021; Tabatowski, 2022)

- The ability to give an account with a symmetrical semantics makes this motivation less pressing

Another point to probe is the relationship between matrix and embedded polar questions

Heavy, asymmetrical accounts are only intended to account for **matrix** polar questions (Krifka 2021; Tabatowski p.c.)

- For polar interrogatives **embedded** under responsive predicates like *know*, the intention is to maintain a light, symmetrical semantics like $\{p, \neg p\}$ for composition with the embedding verb.[5]

[5] I restrict attention to responsives like *know* rather than rogatives like e.g. *wonder* or *ask* because the latter may embed larger structures, i.e. root phenomena, Manfred Krifka p.c., Becky Woods p.c., Woods 2016; Dayal 2020.

Do embedded polar interrogatives exhibit sensitivity to the Evidential Condition?

- Evidence needed: Embedded LNQs licensed by evidence for $\neg p$
- This would suggest the need for an account of the Evidential Condition that is compatible with a symmetric semantics
- Challenge: The evidence is subtle and mixed

Start with positive evidence to establish a baseline:

(29) *Positive evidence*
A: We need to find someone who knows how to reset the router.
B: Jane knows. I'm not sure, but I heard she might be here. (evidence that Jane is here)
A: Let's ask Gerith…
a. She'll know whether Jane's here.
b. ??She'll know whether Jane's not here.

The embedded negative polar question in (29b) is odd, perhaps because there is no negative evidence.[6]

Does adding negative evidence make the embedded negative polar question felicitous?

(30) *Negative evidence*
A: We need to find an empty office for our invited speaker to use.
B: I'm not sure, but I heard Jane might be out today. (evidence that Jane is not here)
A: Let's ask Gerith…
a. She'll know whether Jane's not here.
b. She'll know whether Jane's here.

The presence of negative evidence in (30) seems to improve the embedded negative polar interrogative in (30a).

- Together, (29) and (30) suggest embedded interrogatives that by hypothesis have a light, symmetrical semantics may be subject to the Evidential Condition

On the other hand, (30b) also seems to be perfectly felicitous, which it shouldn't be if the Evidential Condition is in effect.

- The data here is subtle and mixed

[6]There are two variables to manipulate in these embedded clauses: the complementizer (*whether* vs. *if*) and the negation (full *not* vs. cliticized *n't*). The choices seem to matter, and I've simply chosen those that make the starkest case. One issue is that negation in embedded polar interrogatives in English can sometimes be "expletive", a reading that may be encouraged by cliticization, and that we want to avoid (unless of course negation in embedded polar interrogatives were *always* expletive, that would be relevant; but that does not seem to be the case). It's not obvious what the source of this expletiveness is, but one possibility is that the embedded negative interrogative can actually have a "high negation question" reading. However the evidence needed to establish this is also subtle.

- But it is the kind of evidence needed to determine if accounts of the Evidential Condition need to be compatible with a symmetric semantics

4 Conclusions

I have argued

1. That the Evidential Condition does not apply to high negation questions; only PPQs and LNQs
2. That an account of the Evidential Condition can be given while maintaining a light, symmetrical semantics $\{p, \neg p\}$ by taking polar questions to be anaphoric to propositional discourse referents made salient by contextual evidence
3. That if the Evidential Condition is operative in polar interrogatives embedded under responsives like *know*, it suggests that an account that works with a light, symmetrical semantics may be necessary

For discussion of other factors affecting the felicity of polar questions, as well as some discussion of other accounts, see appendix A.1.

For discussion of complementary predicates, see appendix A.2.

4.1 Future work: Investigation of the crosslinguistic picture

Informal discussion with linguists who are native speakers of languages other than English suggests that the asymmetrical sensitivity to evidence across positive and negative polar questions is likely a crosslinguistic phenomenon, as we might expect from the kind of account developed here.

But full confirmation depends on careful work.

Even just within English there are *many* ways to ask polar question-like things, and I do **not** think that all of them should be given a $\{p, \neg p\}$ semantics. It is possible that polar questions formed via other means (e.g. A-not-A structures, discourse particles) also deserve a unique semantics.

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A Appendix

A.1 Other felicity conditions and other accounts

The prejacent chosen to form a polar question is not solely based on evidence; goals and background knowledge also matter.

First background knowledge:

90% of people are right-handed, so if you need to find out whether someone is right- or left-handed, using the predicate *right-handed* seems most natural, perhaps because it's most likely to get a *yes* answer (this is roughly Roelofsen & Farkas's 2015 account of the Evidential Condition on PQs)

(31) A is distributing sewing kits to a long line of people. A has to learn their handedness first because each kit contains a pair of scissors for either left-handed or right-handed people. As each person steps up, A says:
   a. Are you right-handed?
   b. ??Are you left-handed?

Sometimes a speaker has a goal such that finding individuals that make a proposition p true is a necessary prerequisite, so they go around asking polar questions formed from p even if there's no evidence for it (such examples are handled well by van Rooij & Šafářová's 2003 information theoretic utility value account and Tabatowski's 2022 attitudinal account):

(32) A has a pair of left-handed scissors to give away, so she is going from office to office to try to find an appropriate person. In each office, she asks the occupant:
   a. Are you left-handed?
   b. ??Are you right-handed?

(32) demonstrates that a speaker's goals can trump their background knowledge, which tells them that a "no" answer is most likely.

This is a challenge for Roelofsen & Farkas's (2015) account, which says that speakers should form their PQs from prejacents that correspond to the answer that is most likely to be true.

Now consider the interaction of evidence with goals:

(33) Same context as (32), except by now, everyone including Mo has heard that A is looking for left-handed people. A goes to Mo's office, but she isn't there. As A turns to leave, Mo walks in, and A is about to ask "Are you left-handed?", but then A sees Mo holding a pen in her right hand. A says: Oh…
   a. Are you not left-handed?
   b. Are you right-handed?
   c. #Are you left-handed?

(33) shows that contextual evidence can trump speaker's goals.

This may be a challenge for goal-based accounts that attempt to account for all felicity conditions on polar questions via the speaker's goals. For such accounts, the Evidential Condition is just a special case of a speaker goal, namely the speaker has the goal to learn the truth based on the

evidence.

The challenge posed by (33) is that such evidential-truth goals need to be somehow distinguished and elevated above other goals.

By maintaining separate conditions that exert influence on the felicitous formation of polar questions, and ranking them, we can handle these issues:

(34) *Ranking of felicity conditions constraining the choice of prejacents to form polar questions*: Maximize contextual relations > Goal-based phrasing of PQs > Truth-based phrasing of PQs

A.2 On what it takes to use a LNQ containing a complementary predicate

(35) B has just come home after playing a tennis match. Neither A nor B had strong expectations beforehand about whether B would win or lose. B looks happy. ($\rightsquigarrow$ *that B won*) A says:

a. Did you win? b. #Did you not lose?

(36) B has just come home after playing a tennis match. B told A beforehand that it was **all but certain** that B would lose. B looks happy. ($\rightsquigarrow$ *that B won*) A says:

a. Did you win? b. Did you not lose?

Evidence for *that B won* is also evidence *that B did not lose*.

But the acceptability of the LNQ seems to also require *lose* to be given, in a sense.

The PPQ and LNQ in these examples identically respect the presupposition of O.

Since both respect O, the Maxim of manner can still be operative: Use the simplest of these two. (35a) is simpler than (35b), which explains (35).

But then the givenness of the predicate *lose* in the LNQ as in (36) makes the LNQ felicitous.

Something similar is observable in (9) and (10)

(9) *Negative evidence*
A had been pretty sure that Mo's house is blue. Then B says, "Meet me at Mo's house, it's the red one down the street." A says:

a. Is Mo's house red? b. Is Mo's house not blue?

(10) *Negative evidence*
A previously believed that Mo is right-handed. But then A and B see Mo writing very well with her left hand. A says:

a. Is Mo left-handed? b. Is Mo not right-handed?

But notice that *blue* and *right-handed* are not exactly *given* in the usual sense.

A is merely biased for these. And if we were to remove A's bias from each of these contexts, then the b. examples would become infelicitous.

Using "resonate" as a catch all for both "given" and "biased", the requirement might be that the complementary predicate must be "resonating" in order to further obviate the Maxim of manner, when the Maxim of manner is not in competition with the requirement to Maximize contextual relations.