

Speaker bias in commitment terms

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Goals of the talk are to show that:

1. By adding an evidential dimension, the source of **negative bias** in positively biased polar questions is accounted for;
2. Even for epistemically (and positively) biased polar questions, **contextual evidence** matters;
3. Semantics of **conjectural questions** is also derived *true-to-form*;
4. (If possible,) Korean can be a ‘mixed’ language in terms of bias and evidentiality relation in questions (contra [Bhadra 2020](#)).

Biased Polar Questions (PQs) and evidentiality both touch on the issue of how interlocutors make commitments on unresolved issues via sourcehood, but few studies make the connection between the two (but see [Frana & Rawlins 2025](#)). Using commitment-based formal pragmatic model à la [Gunlogson 2008](#), we will see that interpretations of question bias are tightly linked to different **sentential forces**.

1 Prelude: bias ambiguity in Korean PQs

Let us take the case study of evidential marking in Korean Long-form Negation PQs. Korean has two morphemes that negate a proposition: **Short-form negation** *an-* and **Long-form negation** (LN) *anh-*; we focus on the latter to form biased PQs in Korean. Some established facts about LN in PQ contexts in (1) and relevant examples in (2):

- (1) a. LN-PQs are ambiguous in terms of bias interpretation; it can be interpreted as conveying either *p*- or $\neg p$ - bias ([Kim et al. 2024](#));

- b. LN is called ‘long’ because of its biclausal structure (not just due to the complexity of the morpheme); *anh-* negates a whole CP headed by *-ci*, and this allows for two tense sites;
- c. Marking the embedded tense forces a positive bias in LN-PQs ([Park 2020](#));
- d. In other words, a negative bias reading of LN-PQs is expected when it is not embedded tense-marked (only when it’s just matrix tense-marked).

I label the two tense-marked LN-PQs as the following (let *p* be ‘John came to the party’ across most of the examples in this handout):

(2) a. Matrix LN-PQ

John-i phathi-ey o-ci anh-[ass]-ni?
John-NOM party-to come-COMP NEG.do-PST-Q
‘Didn’t John come to the party?’ (*p*-biased) or
‘John did not come to the party?’ ($\neg p$ -biased)

b. Embedded LN-PQ

John-i phathi-ey o-[ass]-ci anh-ni?
John-NOM party-to come-PST-COMP NEG.do-Q
‘Didn’t John come to the party?’ (*p*-biased)

When we add the direct evidential tense *-te*¹ into the picture, an unexpected $\neg$ -reading is forced, and I dub this Evidential LN-PQ, (3), (the evidential² meaning is represented as being Not-At-Issue, NAI):

(3) Evidential LN-PQ

John-i phathi-ey o-ci anh-ass-[te]-ni?
John-NOM party-to come-COMP NEG.do-PST-TE-Q

¹ I am not trying to argue about the syntactic category of the direct evidential marker *-te*-. Readers are referred to [Chung 2007](#) and [J. Lee 2013](#) for the debate on whether *-te*-is tense or modal, and how its temporal contribution should be represented.

² For brevity, I will gloss the direct evidential *-te*- simply as TE.

‘John did not come to the party?’ ($\neg p$ -biased)

NAI: ‘Did you perceive that ($= \neg p =$ John’s absence at the party)?’

What I mean by (speaker) bias:

- (4) **speaker’s (original) bias** (cf. [Domaneschi et al. 2017](#))
The speaker’s inclination towards one of the two answers to a polar question due to their previous belief about subject matter, before they may update their epistemic state at the moment of utterance (on the basis of new contextual evidence).

I use the addressee’s responses as a test for deciding speaker bias:

- (5) Biases captured through polar response particle + proposition
- Ung, o-ass-e.
yes come-PST-DEC
[Match-positive] ‘yes, he came.’ (yes, p)
Matrix: ✓, Embedded: ✓, Evidential: ??
 - Ung, o-ci anh-ass-e.
yes come-COMP NEG.do-PST-DEC
[Mismatch-negative] ‘yes, he didn’t come.’ (yes, $\neg p$)
Matrix: ✓, Embedded: ??, Evidential: ✓
 - Ani, o-ass-e.
no come-PST-DEC
[Mismatch-positive] ‘no, he came.’ (no, p)
Matrix: ✓, Embedded: ??, Evidential: ✓
 - Ani, o-ci anh-ass-e.
no come-COMP NEG.do-PST-DEC
[Match-negative] ‘no, he didn’t come.’ (no, $\neg p$)
Matrix: ✓, Embedded: ✓, Evidential: ??

The roadmap:

- ✓ Prelude
- A closer look at Evidential LN-PQs
- Speaker bias in commitment terms (an informal account)
- Thoughts on Conjectural Questions

2 A closer look at Evidential LN-PQs

Adding the evidential such as *-te-* may lead us to the origin of question bias. Looking at some context where an Evidential LN-PQ is uttered provides that opportunity. (6) is a token from a spoken corpus³ containing an Evidential LN-PQ:

(6) Ceiling fan example

A couple is discussing about the recent remodeling of their apartment. Addressee says ‘there’s not much that is upgraded in our apartment.’ Speaker reacts to this:

Silingpayn koaycanh-ci anh-te-na? (... *I thought it was nice*)
ceiling.fan be.fine-COMP NEG.do-TE-Q (afterthought)

‘The ceiling fan isn’t nice?’

NAI: ‘Did you perceive that ($=$ the ceiling fan not being a nice change)?’

At least two points in (6) stand out to me:

- The negative reaction from the speaker is a direct response to the negative remark from the addressee (and the NAI meaning is responding to that).
- As the afterthought-like continuation hints at, the speaker is actually positively biased regarding the matter, despite the addressee’s rather lukewarm attitude.

Here I will only focus on the former. The latter point, i.e. how to derive the speaker’s positive bias, has been extensively studied (see e.g. [Goodhue 2022](#), [Romero & Han 2004](#), a.o.) and I have no further point to make in this regard.

2.1 Negative bias comes from negative contextual evidence

The first observation above is in fact not an exceptional case. The experimental study by [Kim et al. 2024](#) on the acceptability of polar responses with the answering forms in (5) empirically supports the better acceptability (measured by 7-point Likert scale) of $\neg p$ -bias in contexts loaded with negative contextual evidence (N.B. their stimuli were Matrix LN-PQs):

³ This token is from the 2023 dialogue corpus gathered by the National Institute of Korean Language.

- In such (negative context) condition, the mismatch - negative response ('yes, $\neg p$ ') was accepted with a higher rating than the match - negative response ('no, $\neg p$ '), with a marginal difference (avg. 5.00 to 4.50).
- Even in the neutral context condition, these two response types were still marginally different, with the mismatching response ('yes, $\neg p$ ') averaging 4.67 and the matching response ('no, $\neg p$ ') averaging 4.84.

Why is the mismatching response, a reflex of $\neg p$ -bias recognition, well accepted in (non-Embedded) LN-PQs? It is the contextual evidence, that is negative with respect to the content proposition being entertained, purportedly being actively considered (hence marked in the evidential meaning) by the speaker who might or might not be epistemically p -biased.

Consider the ceiling fan example: the discussion topic being what they (jointly) think about the recent remodeling of their apartment (as a couple), the addressee's remark that nothing much has been upgraded is driving the context towards a negative conclusion about the topic. This situation puts the speaker to (re)act in a responsive manner (assuming a cooperative speaker in the sense of Rudin 2022; a speaker who knows how to collaboratively build the Common Ground).

2.1.1 The case of an unbiased speaker

Say the speaker is originally unbiased. In the example (6), the speaker might find the addressee's negative remark as a starting point to resolving the issue at hand (evaluating the recent remodeling of their home). Such speaker might utter the same sentence with slightly difference caveats:

- (7) A neutral speaker for the ceiling fan example
 (ϕ for the Evidential LN-PQ in 6)
- (Well, I haven't really thought about it yet, but) ϕ
 - (I think we need some time in making our minds, but) ϕ

While I abstract away from the meaning contribution of the connective 'but' (or the equivalent form in Korean) and ignore the relevant effect, the fact that ϕ is freely utterable for a neutral speaker shows that $\neg p$ -bias originates from the compelling contextual evidence, which is the addressee's (negatively) biased attitude in this case.

2.1.2 The case of a positively biased speaker

As the continuation in the original example (6) demonstrates, the speaker can naturally hold an opposing view on the subject matter. This is not only an unsurprising case but also a well-observed case in the realm of biased PQ literature: INNER NEGATION PQ (Ladd 1981) and any biased PQ in contradictory scenario in Romero & Han 2004.

- (8) Ladd's INNER NEGATION PQ (adapted)
 A: There's not really any place to go in Hyde Park for dining.
 B: Oh, really, isn't there a(ny) vegetarian restaurant around here?

Much attention has been paid towards the syntactic hierarchy of the ENGLISH HIGH NEGATION (and the like; see Romero 2024 for an overview), but not as much on what pragmatically licenses such configuration (but see S.-y. Lee 2025 for similar intuitions) and why the sentential negation has to compose either into or out of the content proposition.

While NPI licensing has been taken as evidence for the 'inner-ness' of the sentential negation $n't$, it is worth noting that Speaker B in (8) cannot felicitously utter the NPI *any* without A's preceding negative remark about a place to dine in the area. The opposite case in Ladd 1981, namely OUTER NEGATION PQ, proves how anti-licensing NPIs is due to lack of such negative contextual evidence, A's remark in (9):

- (9) Ladd's OUTER NEGATION PQ (adapted)
 A: Should we go out and get something to eat?
 B: Yeah, isn't there {a/#any} vegetarian restaurant around here?

Take-away:

- Negative contextual evidence is the origin of negative bias in Negative PQs (NPQs);
- Korean Evidential LN-PQs capitulate on this contextual factor (but not necessarily on the epistemic bias of the speaker);
- Even languages without evidential marking are sensitive (as evidenced by the contrast of Ladd's Inner/Outer NPQs)

2.2 What counts as evidence in questions

Despite vast literature on speaker-biased PQs (Romero 2024 for an overview) and declarative questions (*Rising Declaratives*, RDs; Gunlogson 2008 et seq.), there has not been a systematic attempt to connect the proposals in these two closely related areas. As a matter of fact, **Inner Negation PQs** are oftentimes (mis)translated to **negative RDs** (see e.g. Armstrong 2017 for Puerto Rican Spanish) or **LOW NEGATION QUESTIONS** (see Kramer & Rawlins 2009). I think this kind of confusion is telling. Among the common properties of these constructions is negative contextual evidence. Ladd’s Inner Negation (B’; but not Outer Negation) PQ can be replaced by negative RD (B”) and Low Negation Question (B”’)

- (10) A: : There’s not really any place to go in Hyde Park for dining.
 B’: Oh, really, isn’t there any vegetarian restaurant around here?
 B”: Oh, really, there’s no vegetarian restaurant around here?
 B”’: Oh, really, is there no vegetarian restaurant around here?

So far, contextual evidence for licensing biased PQs came from the immediately preceding utterance of the addressee. A cooperative speaker would be discourse-sensitive to reflect it in their form of utterance, but not every biased utterance can actually perform this function. What counts as evidence for a questioner can be different. To delve into this point, let us turn our attention back to Korean LN-PQs.

Evidential-RD puzzle

When Q-morpheme (such as *-ni* or *-nya*) is changed to a plain declarative morpheme (*-e*) with a rising intonation (↑), the bias meanings observed in (2) are preserved. In other words, canonical (= Q-marked) LN-PQs and declarative LN-PQs (or negative RDs) are functionally similar just like English Inner Negation PQs, (10B’) and negative RDs, (10B”).

- (11) Non-evidential negative declaratives
- a. John-i phathi-ey o-ci anh-ass-e.
 John-NOM party-at come-COMP NEG.do-PST-DEC
 ‘John didn’t come to the party.’
- b. John-i phathi-ey o-ci anh-ass-e↑.
 John-NOM party-at come-COMP NEG.do-PST-DEC↑
 ‘Didn’t John come to the party?’ or ‘John did not come to the party?’

However, when the equivalent change is applied to Evidential LN-PQs (with *-te*-compatible declarative morpheme, *-la*), this parallelism breaks. The declarative question in (12b) no longer conveys the typical RD meaning (losing its typical question flavor) and functions rather as a **CONJECTURAL QUESTION** (see e.g. Eckardt 2020).

- (12) Evidential negative declaratives
- a. John-i phathi-ey o-ci anh-ass-te-la.
 John-NOM party-at come-COMP NEG.do-PST-TE-DEC
 ‘John didn’t come to the party.’
 NAI: ‘I perceived it (= John’s absence at the party).’
- b. ??John-i phathi-ey o-ci anh-ass-te-la↑.
 John-NOM party-at come-COMP NEG.do-PST-TE-DEC↑
 ‘John did not come to the party.’
 NAI: ‘I think I perceived it (= John’s absence at the party)?’

I dub this oddity captured in (12b) **Evidential-RD puzzle**. This puzzle bears the following features:

- The Origo (the evidence holder) does not shift to the addressee;
- No conceivable context could retrieve the other biased PQs’ meaning (the speaker is *p*-biased, and asks the addressee to clarify what they meant by the previous utterance). Specifically, the negative contextual evidence coming from the addressee in the immediately preceding discourse renders an even more odd discourse;
- Contrary to other typical Evidential LN-PQs, it can be conjectural discourse starters (similarly to observations of German verb-final *wohl* questions in Eckardt 2020);
- As the NAI paraphrase suggests, the evidential proposition has a weakened meaning, adding the conjectural flavor to it.

That biased evidential PQs cannot be expressed with RDs seems to be replicated in a close parallel in English using a perspectival adverb *obviously* (albeit my non-native intuition), hence this puzzle can be cross-linguistically extended:

- (13) (There’s not really any place to go in Hyde Park for dining. I’ve checked every corner.)
 ✓ Inner Negation PQ: Oh, really, isn’t there *obviously* any vegetarian restaurant around here?

($\approx$ Is it that obvious to you the absence of dining spots?)
 ?? negative RD: Oh, really, there's obviously no vegetarian restaurant around here?
 (Tricky to accommodate it; It sounds the speaker is repeating the *obviously*-statement verbatim.)
 ✓ Low Negation Q: Oh, really, is there obviously no vegetarian restaurant around here?
 ($\approx$ Is it obvious to you/relevant entity that absence?)

In the following section, I will provide an informal account of how speaker bias is captured in biased PQs using commitment-based models (e.g. Gunlogson 2008, Bhadra 2020).

3 Speaker bias in commitment terms (an informal account)

Recall that I started this talk by presenting the bias ambiguity of Matrix LN-PQs, (2a). As the two paraphrases corresponding to English High Negation Question ('Didn't John come ...') and negative RD ('John did not come ...') hinted at, my arguments on the origin of speaker bias are based on different sentential forces and the subsequent commitments coming from this formal aspect (§3.1). While Korean is not equipped transparent morphosyntax that demonstrate the formal features, the Evidential-RD puzzle presented above with Evidential LN-PQs constitute a solid piece of evidence (§3.2).

3.1 Proposal: bias is true to form

I argue the following⁴:

- Typical p -biased LN-PQs (such as Embedded LN-PQs in 2b) are derived from *polar interrogatives*.
- Evidential LN-PQs, as well as any $\neg p$ -biased LN-PQs are, in fact, negative RDs.
- These formal differences are captured in terms of commitments and their sources, taking models devised in Gunlogson 2008, Bhadra 2020.

⁴ I was originally working with the Table model (Farkas & Bruce 2010), but here I will try to show that commitment and sources are theory-neutral concepts that can be captured without such model.

⁵ I do not analyze this as a case of TAG QUESTIONS because the long negation cluster cannot reverse polarity and preserves the negative form when the prejacent is already negative (marked by short negation). English tag questions, on the other hand, do flip the polarity in the tag: *John didn't come to the party, did he?*.

By COMMITMENT, I follow Stalnaker 2002 by assuming it to mean publicly *accepted* propositional attitudes, not necessarily believed to be true.

Canonical LN-PQs

The speaker of a canonical (=derived from the interrogative sentence form) PQ raises an issue of denotation $\{p\}$ (cf. Biezma & Rawlins 2012) and can arrive at a joint commitment only through the addressee's answer. The speaker is not adding anything to their discourse commitment set ($DC_{Spk}' = DC_{Spk}$), but marks their bias by updating the addressee's prospective commitment set with the prejacent p ($DC_{Adr}^* = DC_{Adr} + \{p\}$).

In Embedded LN-PQs, tense is valued inside the embedded CP (underneath the long negation *anh-*) and completes the LF for propositional anaphora, hence p -bias is predicted. A piece of evidence that $\{p\}$ is indeed getting updated comes from **insubordination**. An LN-PQ utterance that omitted the long negation cluster, *anh-ni*, can still convey the same p -biased meaning⁵:

- (14) John-i phathi-ey o-[ass]-ci? (anh-ni)
 John-NOM party-to come-PST-COMP (NEG.do-Q)
 'Didn't John come to the party?' (p -biased)

Negative RDs

By virtue of the declarative form, the speaker of RDs make commitments that are *contingent* on the addressee's ratification, which brings about the questionhood to the utterance. As Gunlogson 2008 explains with ample examples, the contingent commitment of the speaker of an RD is captured by the addressee's relative authority over the content proposition (contingency in terms of hierarchy of $DC_{Adr}^* > DC_{Spk}^*$, that is, only when DC_{Adr}^* updates DC_{Adr} , then DC_{Spk}^* can update DC_{Spk}). Holding an epistemic authority over p means being a SOURCE for the commitment p .

Evidential LN-PQs are of this sort. I have shown in §2.1 and §2.2 that typical Evidential LN-PQs (except for the Evidential-RD puzzle, which I will come back to in §3.2) are sensitive to a tentative commitment coming from the context and, in many cases, from the addressee's preceding ut-

terance. The speaker is reacting to this *potential* commitment by posing it as a question. In Gunlogson 2008’s terms, the speaker identifies the addressee as the SOURCE of the $\neg p$ -commitment.

One disclaimer: While Korean morphosyntax does not transparently show this form, I make a small claim that Q-morphemes in Korean (such as *-ni*, *-nya*) are NOT interrogative sentence markers. The fact that it is preceded (for a head-final language) by most evidential markers (except for reportatives) indirectly shows that Q-morphemes are not responsible for providing any question semantics. I deem it more as a pragmatic marker of inquisitiveness that interacts with context (and entities in the context).

3.2 Application of the commitment-based model

Now I move on to explaining the Evidential-RD puzzle. Given the *true-to-form*-style account of Evidential LN-PQs in §3.1, it looks even more puzzling. Why can’t evidential questions take tentative commitments?

The key to the puzzle should be, again, true to form. In fact, this puzzle from Korean is one rare case where morphology supports this approach. Also a rare interaction between evidentiality and sourcehood is observed.

Canonical evidential questions (non-declarative Evidential LN-PQs)

Let us first consider the non-declarative Evidential LN-PQs, (3):

- Assuming the default Origo of evidentials to be the speaker, there is a systematic clash of **independent sourcehood** (=who makes an independent commitment) in evidential questions.
- For a single utterance, it is epistemologically awkward to have multiple independent sources. However, the evidential directs at the speaker and the Q-morpheme directs at the addressee as the independent source.
- This is where cross-linguistically well-attested **Interrogative Flip**⁶ (IF) resolves this epistemic clash: In inquisitive speech acts, it flips the EVIDENTIAL REQUIREMENT (see Korotkova 2020) from the speaker to the addressee in the evidential.

- This discourse-level accommodation has to be implemented for the regular Evidential LN-PQs due to the $\boxed{-te-Q}$ complex: *-te-* is structurally in a lower position than Q, hence the anchor in Q (=the addressee) alters the anchor in *-te-* (=the speaker). In other words, the $\boxed{-te-Q}$ form derives the inevitable IF effect.
- This leads to the pragmatic effect of contextual evidence sensitivity in evidential questions (cf. §2.1), rendering $\neg p$ -bias.

Gunlogson 2008 proffers **contextual evidence condition** for RDs. Here, I would like to enhance this contextual evidence sensitivity for evidential PQs in general:

- (15) CONTEXTUAL EVIDENCE CONDITION (modified): commitments require evidence or at least inferential grounds for such commitment
- (16) BIASED CONTEXTUAL EVIDENCE CONDITION: in evidential questions, commitments require the addressee’s biased commitment (with independent sourcehood)

This enhanced condition can be shown with a further continuation of the discourse⁷:

- (17) *why*-question test on contextual evidence
 - a. A: John-i phathi-ey o-ci anh-ass-te-ni?
John-NOM party-to come-COMP NEG.do-TE-Q
‘John did not come to the party?’
NAI: Did you perceive that (= $\neg p$)?
 - b. B: Ani, o-ass-e.
No, come-PST-DEC
‘No, he (actually) did.’
 - c. A: Then *how come/why* were you praising about his party outfit? (questioning about the source of $\neg p$ -bias)

A’s last utterance signals how the discourse is constrained. The speaker of Evidential LN-PQs (and evidential questions in general) has to be sensitive to the addressee’s biased commitment, which serves as the contextual evidence for the evidential question in (17a).

⁶ Note that it’s the questionhood/inquisitiveness, not the interrogative (sentential) form that brings about this discourse effect. There is nothing in the interrogative form that encodes an interlocutor parameter such as the addressee. I consider this term to be a misnomer.

⁷ Thanks to Shaunak Phadnis for providing this relevant test.

Puzzling evidential questions (declarative Evidential LN-PQs)

Now let us consider the declarative Evidential LN-PQs, (12). The $\boxed{-te-DEC\uparrow}$ sentence-final complex holds the key:

- $\boxed{-te-DEC\uparrow}$ is decomposed into $\boxed{-te-DEC}$ and $\boxed{\uparrow}$.
- Updating $\boxed{-te-DEC}$ is similar to a plain evidential assertion update: e.g. an assertoric utterance $EV(\text{Assert}(p))$ updates DC_{Spk} and ss_{Spk} (SOURCE SET, the set of p -worlds with the interlocutor as the source of that p -commitment) with p . $\boxed{\uparrow}$ updates DC_{Spk}^* , signalling the speaker's own prospective commitment towards p (Bhadra 2020's conceptualization of the bias operator)
- Updating DC_{Spk} and ss_{Spk} , on the one hand, and DC_{Spk}^* , on the other, is peculiar in at least two ways: (i) lack of IF, hence lack of encoding the addressee's relative authority (no typical RD reading); (ii) pragmatic oddity of updating the present and prospective commitment sets with a single utterance.

In sum, lack of IF explains the Evidential-RD puzzle. The evidential component tries to update the speaker's present commitment set and the final rise ($\uparrow$) tries to defer that update (*don't update your own commitment just now*). According to the pragmatic principles (cooperative maxims for commitments) of Rudin 2022, evidential questions violate SINCERITY, quality-like maxim for commitments.

4 Thoughts on conjectural questions

This pragmatic oddity (or a non-sincere commitment update) nevertheless does not result in infelicity of evidential questions across the board. As it was briefly mentioned in §2.2, evidential questions can be used as CONJECTURAL QUESTIONS (CQs):

- (18) Verb-final *wohl* questions in German (Eckardt 2020, p.28)
- A: I haven't had any news about Peter in a long time.
 - B: Me neither.
 - A: Ob er wohl immer noch kubanische Zigarren mag?
whether he wohl still PRT Cuban cigars likes

'I wonder whether he still likes Cuban cigars'

- (19) Proposed LF for the verb-final *wohl* CQ by Eckardt 2020
[ob [_{ForceP} wohl [_{SpecCP} - [_{C'} - [_{IP} ? er - immer noch kubanische Zigarren mag]]]]]

Eckardt 2020 summarizes the pragmatic features of CQs such as the German one in (18) as the following:

- the speaker does not expect the addressee to know the answer.
- the speaker does not request an answer.
- the addressee can remain silent without violating the rules of discourse.
- the speaker invites the addressee to speculative discourse about the topic.

All these properties, I argue, can be explained in the commitment framework without resorting to construction-specific abstract operators. Following is my argument:

1. I take it for granted that German particle *wohl* is analyzed similarly to inferential evidentials. Hence, *wohl* questions are evidential questions;
2. I also take it for granted that *ob* (paraphrasable as 'whether') in *wohl* questions block T-to-C movement, taking responsibility to maintain the declarative syntax. Hence, verb-final *wohl* questions are RDs;
3. By virtue of the two points above, it fits nicely into the Evidential-RD puzzle frame. Then, I equate $\boxed{ob-wohl}$ (head-initial) to $\boxed{-te-DEC}$ (head-final) in that this morpheme complex updates DC_{Spk} and ss_{Spk} . The final rise, $\uparrow$, invariably updates DC_{Spk}^* .

The lack of inquisitive flavor of German CQs, then, can be attributed to the fact that CQs are not updating any of the addressee's DCs.

I conclude with the last piece of thought on the invitational flavor of CQs (the last bulletpoint above), with a parametric difference between Korean and German:

- CQs follow the logic of abductive reasoning (see Winans 2016), which has the logical form of *inverse modus ponens*⁸;

⁸ (i) if q , then p ; (ii) p ; (iii) therefore, q . Following Winans 2016, I will call p CONSEQUENCE and q TRIGGER (the possible cause of the consequence).

- German CQs involve the inferential evidential *wohl*, which conveys the reasoned bias (CONSEQUENCE), which is subject to defeasible inference (further piece of evidence can cancel the bias);
- Korean CQs (evidential negative RDs) involve the perceptual evidential *-te-*, which conveys the gathered evidence (TRIGGER). Evidential negative RDs like (12b) do not convey the bias itself, but signals the acquisition of circumstantial result, fulfilling the preconditions for abductive reasoning (ready to answer the *why*-question in 17);
- Both types of CQs would end up with an invitational flavor for the addressee to take part in this abductive reasoning process.

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