

“Indeed” and epistemic authority

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1. Introduction

- This paper discusses the discourse presuppositions of *indeed* as a response particle.
- *Indeed* can be used as a response to a wide range of sentence types, can convey a positive or negative response, and can reflect agreement or disagreement:
 - (1) a. It’s cold out. / It’s cold out? / It’s cold out, isn’t it?
b. Indeed (it is).
 - (2) a. John is not the murderer.
b. Indeed (he is not).
c. ?**Indeed** he is!
- Manipulating the context (specifically, participants’ relative knowledge about the QUD) reveals part of *indeed*’s basic meaning that underlies all of these responses.

Hypothesis: *Indeed* presupposes that the speaker has equal or greater epistemic authority to commit to *p* relative to the addressee.

Roadmap:

Section 2 defines epistemic authority and the basis for my hypothesis

Section 3 provides data on *indeed* and *correct* in various discourse contexts

Section 4 discusses the implications of my analysis for *indeed*’s co-occurrence with rising intonation.

Section 5 discusses the open issue of the at-issue content of *indeed* and its function as a discourse anaphor.

Section 6 concludes.

2. An appeal to authority

- Epistemic authority and evidential bias are prominent in literature on various types of declaratives and interrogatives.
- In the functional literature, we find some observations of how relative epistemic authority influences responses:
 - (3) A: T’s tsuh beautiful day out isn’t it?
B: Yeh it’s jus’ gorgeous... (Heritage & Raymond 2005)

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- A is downgrading her claim to authority by using a tag question. B agrees, but “declines to assert primary rights [which A had intended to cede to her].” In other words, *yeh* marks B as having no more epistemic authority than A (Heritage & Raymond 2005).
- Following Heritage & Raymond 2005 as well as Northrup 2014, I am interested in how the relative authority of participants affects the felicity of *indeed* as a response.
 - Relative epistemic authority: “How qualified a participant is [based on his knowledge] to vouch for the truth of the proposition, **compared to his interlocutors.**” (Northrup 2014)
 - Cf. sourcehood and dependency, which describe absolute authority (i.e., whether a participant is qualified to commit to *p*, regardless of other participants’ knowledge or prior commitments) (Gunlogson 2008)
- Northrup argues that the Japanese discourse particle *yo* reflects maximal epistemic authority on the part of the speaker; that is, no participant has more authority than the speaker.
 - The particle *ne* presupposes minimal speaker authority, i.e., that no participant has less authority than the speaker.
 - *Yone* is used to express equal epistemic authority. Due to the availability of *yone*, *yo* is taken to implicate that the speaker has greater, not equal, authority relative to other participants.
- My hypothesis is that *indeed*, like *yo*, presupposes **maximal (i.e., equal or greater) speaker authority**. However, *indeed* differs from *yo* in that its potential meaning of “equal epistemic authority” is not ruled out by implicature.

3. *Indeed* and *Correct*

3.1. *Responding to positive initiatives*

- In order to better understand the function of *indeed*, I examine it alongside the intuitively similar response *correct*.

Scenario: A woman brings her son to the doctor with a fever and a sore throat. She has researched the symptoms online and knows the child’s classmates have had strep throat recently. She believes her son has strep throat, though she knows the symptoms have other potential causes. She calls the school to report the absence:

(4) (SPEAKER > ADDRESSEE)²

Teacher: He has strep./He has strep, doesn’t he?

Mother: Indeed./Correct.

- The mother has more epistemic authority than the teacher, and both *indeed* and *correct* are licensed.

² Unless otherwise noted, SPEAKER refers to the participant who utters *indeed/correct*.

- *Indeed* and *correct* are not valid in response to an addressee with greater epistemic authority:
 - (5) (SPEAKER < ADDRESSEE)
 - Doctor: (Having just run a test) He has strep throat.
 - Mother: #Indeed./ #Correct.
 - The mother’s evidential base has not changed—her addressee’s has. This suggests that relative epistemic authority is at work.
 - The infelicity in (5) is not due to the fact that *indeed* is relatively high-register.
 - *Indeed* is permissible when the mother has equal or greater epistemic authority over the topic at hand.
 - *Correct* requires that her epistemic authority be greater than her interlocutor’s:
 - (6) (SPEAKER = ADDRESSEE)
 - Context: The woman measured her child’s temperature at 100°F using a reliable thermometer. The doctor does the same.
 - Doctor: He has a fever.
 - Mother: Indeed./ #Correct.
 - (7) (SPEAKER > ADDRESSEE)
 - Context: The doctor knows she is seeing a patient named James at 11:00.
 - Doctor: This must be James.
 - Mother: Indeed./ Correct.

- These data are summarized in (8)

(8) Generalizations:

	SPEAKER = KNOWLEDGEABLE		
	SPKR < ADD	SPKR = ADD	SPKR > ADD
<i>Indeed</i>	#	✓	✓
<i>Correct</i>	#	#	✓

- *Indeed* is licensed when the speaker has at least as much epistemic authority as their interlocutor, much like Japanese *yo* as described by Northrup (2014).
- *Correct* is licensed when the speaker has more epistemic authority.
- The following three sections examine the distribution of *indeed* and *correct* in response to other types of initiatives to further refine our understanding of their semantics.

3.2. Responding to negative initiatives: Agreeing

- We obtain the same generalizations regarding the acceptability of *indeed* and *correct* in agreeing responses to negative initiatives:

Scenario: A woman’s son has been complaining of a stomachache (with no fever or sore throat). She measures his temperature with a reliable thermometer, and it is 98.6°F. She researches his symptoms. Though strep has been going around, she feels confident in claiming that her son does not have strep (as a source). She calls his teacher and describes the symptoms:

(9) (SPEAKER > ADDRESSEE)

Teacher: He doesn’t have strep.

Mother: Indeed./ Correct.

– These responses are permitted in response to a less authoritative addressee.

- As in positive contexts, the mother cannot use these particles in response to a more authoritative participant:

(10) (SPEAKER < ADDRESSEE)

Doctor: (Having just run a test) He doesn’t have strep throat.

Mother: #Indeed./ #Correct.³

- When the topic under discussion is one for which both participants have equal authority, *indeed* is licensed. *Correct* still requires the speaker to have greater authority:

(11) (SPEAKER = ADDRESSEE)

Context: The woman measured her child’s temperature at 98.6°F using a reliable thermometer. The doctor does the same.

Doctor: He doesn’t have a fever.

Mother: Indeed./ #Correct.

(12) (SPEAKER > ADDRESSEE)

Context: The doctor has treated this woman’s other son, Michael, in the past. She can tell them apart reasonably well.

Doctor: This is not Michael.

Mother: Indeed./ Correct.

- Absolute polarity must not be included in their discourse presuppositions. But is relative polarity?

3.3. Responding to negative initiatives: Disagreeing

- The particles’ acceptability diverges in disagreeing contexts. Compare:

(13) a. John is not the murderer.

b. Indeed (he is not).

³ Tom Roberts has pointed out that *indeed* and *correct* may be felicitous here, if the mother feels that the test was unnecessary in light of her original suspicions; however, in such a scenario, the mother apparently believes herself to have better evidence than the test, and can use *indeed* or *correct* to present herself as the authority on the issue.

- c. ?**Indeed** he is!
- d. He is **indeed** the murder!

- (14) a. John is not the murderer.
 b. Correct. (He is not).
 c. #**Correct**. He is!

- With what Krifka (2013) calls “rejecting accent” (boldface), *indeed* can be used to reject a negative initiative with a positive response.⁴ *Correct* cannot.
- *Correct* requires the presupposition that the speaker agrees with the antecedent.
- *Indeed* requires no polarity-related presuppositions, as relative epistemic authority accounts for disagreement: You only correct someone when you believe that your knowledge on the matter is superior to your interlocutor’s.
- Notes on disagreement with clause-initial *indeed* (13)b:
 - Rejecting accent is required
 - A prejacent is required
 - These requirements do not derive from the semantics of *indeed*, but from the pragmatics of disagreement; disagreement is a marked discourse move, and therefore must be explicitly signaled (e.g., Farkas & Roelofsen’s 2016, Farkas & Bruce 2010)

3.4. Responding to interrogatives

- Uttering a polar interrogative constitutes a request that the addressee decide some issue (Farkas & Bruce 2010); a non-trivial response is fully compatible with the respondent having greater epistemic authority.
- Any restrictions on *indeed* and *correct* in response to different interrogative types would indicate further presuppositions are needed.
- Each interrogative type and rising declarative shown in (15)-(18), licenses *indeed*. *Correct*, on the other hand, cannot be used in response to a standard polar interrogative (15):

- (15) POLAR INTERROGATIVE
 A: Is it cold out today?
 B: Indeed (it is)./ #(That’s) correct.

 C: Is it not cold out today?
 D: Indeed (not)./ #(That’s) correct.

⁴ It seems that clause-medial *indeed* cannot be used to disagree with a positive antecedent. This may be related to clause-medial *indeed*’s syntactic position, or it may be that clause-medial *indeed* emphasizes positive polarity as part of its semantics.

(16) HIGH NEGATION POLAR INTERROGATIVE

A: Isn't it cold out today?

B: Indeed./ (That's) correct.

C: Isn't it not cold out today?

D: Indeed./ (That's) correct.

(17) TAG QUESTION

A: It's cold out today, isn't it?

B: Indeed./ (That's) correct.

C: It's not cold out today, is it?

D: Indeed./ (That's) correct.

(18) RISING DECLARATIVE

A: It's cold out today?

B: Indeed./ (That's) correct.

C: It's not cold out today?

D: Indeed./ (That's) correct.

- Polar questions do not express bias or commitment on the part of the asker, while RDs and other interrogative types do (Farkas & Roelofsen 2016, Gunlogson 2008, Malamud & Stevenson 2015).
- From this, we can conclude that *correct* requires that the addressee has expressed bias or commitment to the highlighted possibility.
- *Indeed* does not require bias, but it does rely on the presence of a single highlighted response on the table (Farkas & Bruce 2010):

(19) ALTERNATIVE POLAR INTERROGATIVE

A: Is it cold out today, or not?

B: #Indeed./ #(That's) correct.

Summary

Indeed commits the speaker to the antecedent or its complement. If the latter, there must be an overt prejacent. *Indeed* presupposes that:

- The speaker has maximal (equal or greater) epistemic authority to commit to p relative to the addressee
- There is a single highlighted proposition on the table.

Correct commits the speaker to the antecedent. It presupposes that:

- The speaker has greater epistemic authority to commit to p than the addressee
- There is a single highlighted proposition on the table.
- The addressee has already expressed bias or commitment toward p .

4. Predictions about rising intonation

- Rising intonation on a declarative designates the **hearer** as an implicit authority (i.e., as being the projected source for p or $\neg p$).
- I adopt Farkas and Roelofsen’s (2016) analysis of rising declaratives: Speakers do not commit to p , but signal at most low credence for p relative to $\neg p$.
 - In most contexts, RDs cede epistemic authority to the addressee; he is expected to commit to one of the possibilities on the table as a source.
 - In some contexts (e.g., surprise, instruction, snideness), an RD signaling minimal credence for p is meant to convey endorsement of $\neg p$, and emphasizes the speaker’s greater epistemic authority on $p \vee \neg p$:

(20) Context: *Mother asks her child to set the table and he does a particularly bad job of it but appears to consider the chore finished.*

Mother: This table is set? Where are the glasses? Where are the napkins?

- Prediction: If *indeed* is indeed a marker of equal or greater epistemic authority, we would predict it to be incompatible with rising intonation in “typical” RD contexts, but licensed in snide/surprise contexts.
- This prediction is borne out, as shown in the “typical” (21)⁵ and “surprise” (22) contexts below:

(21) Context: A substitute teacher is taking attendance, and consults a student because she seems to know everyone in the class.

Teacher: That’s James over there? / Is that James over there?

Student (unsure): #Indeed? / Yes? / Yeah?

(22) A: One of the crimes was embezzlement, but that’s the lesser offense.

B: Indeed? Embezzlement is quite serious. (COCA)

- These data support the claim that *indeed* presupposes maximal speaker authority.

5. Open questions: *Indeed*’s relationship to antecedents

- Northrup’s authority-based analysis of *yo* has been useful in determining the presuppositions of *indeed*, but has not shed light on its function as a **discourse anaphor** or its **at-issue contribution**.
- Farkas & Bruce 2010, Farkas and Roelofsen 2016: Polarity particles (*yes* and *no*) reflect the absolute and relative polarity of their prejacent. The prejacent are anaphoric to a highlighted (i.e., explicitly stated) possibility p from the immediately preceding context.

⁵ COCA contains several tokens of bare *indeed* as a rising declarative in response to speaker-new information, without asserting authority or challenging that information. However, these are all from fantasy or historical fiction novels, in which authors employ an artificially archaic dialect. We should not draw any conclusions based on these data.

- *Indeed* resembles *yes* and *no*: Its contribution p is derived from immediately preceding context based on the highlighting of a single proposition, and it is often accompanied by a prejacent:

(23) A: Is it cold out today?
B: Indeed it is.

 - *Indeed*'s relationship to its prejacent is quite different from *yes* or *no*'s, as the prejacent may be positive or negative, and may agree or disagree with the antecedent. This requires further investigation.
- *Indeed* has an additional responsive function as a speech act anaphor:

(24) A: Why would John do such a thing?
B: Why indeed. We may never know his motives.

(25) Context: A couple is having a serious argument. B acts as though he is leaving, but is continuing to argue.
A: So are you staying or going?
B: Indeed!⁶
- This use of *indeed* seems to carry the same discourse presuppositions with regard to relative epistemic authority, but further study is needed to determine whether there are further limitations on the distribution of *indeed* as a speech act anaphor.

6. Conclusion

- The concept of relative epistemic authority developed in the functional literature and by Northrup (2014) is critical to understanding the distribution of certain response particles in English.
- *Indeed* presupposes that the speaker has equal or greater epistemic authority relative to the addressee with respect to some proposition p or some speech act, which the addressee has highlighted in the preceding context.
- *Correct* presupposes greater epistemic authority on the part of the speaker, and that the speaker is agreeing with some proposition toward which the hearer has expressed bias.
- Going forward, this project will further explore issues of discourse anaphora and the interaction between a non-polar response particle and its prejacent.

7. References

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⁶ Thanks to Sandy Chung for thinking of this example.

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