

Deriving Social Meanings in an Extended Lewisian Model

The Case of English Rising Declaratives

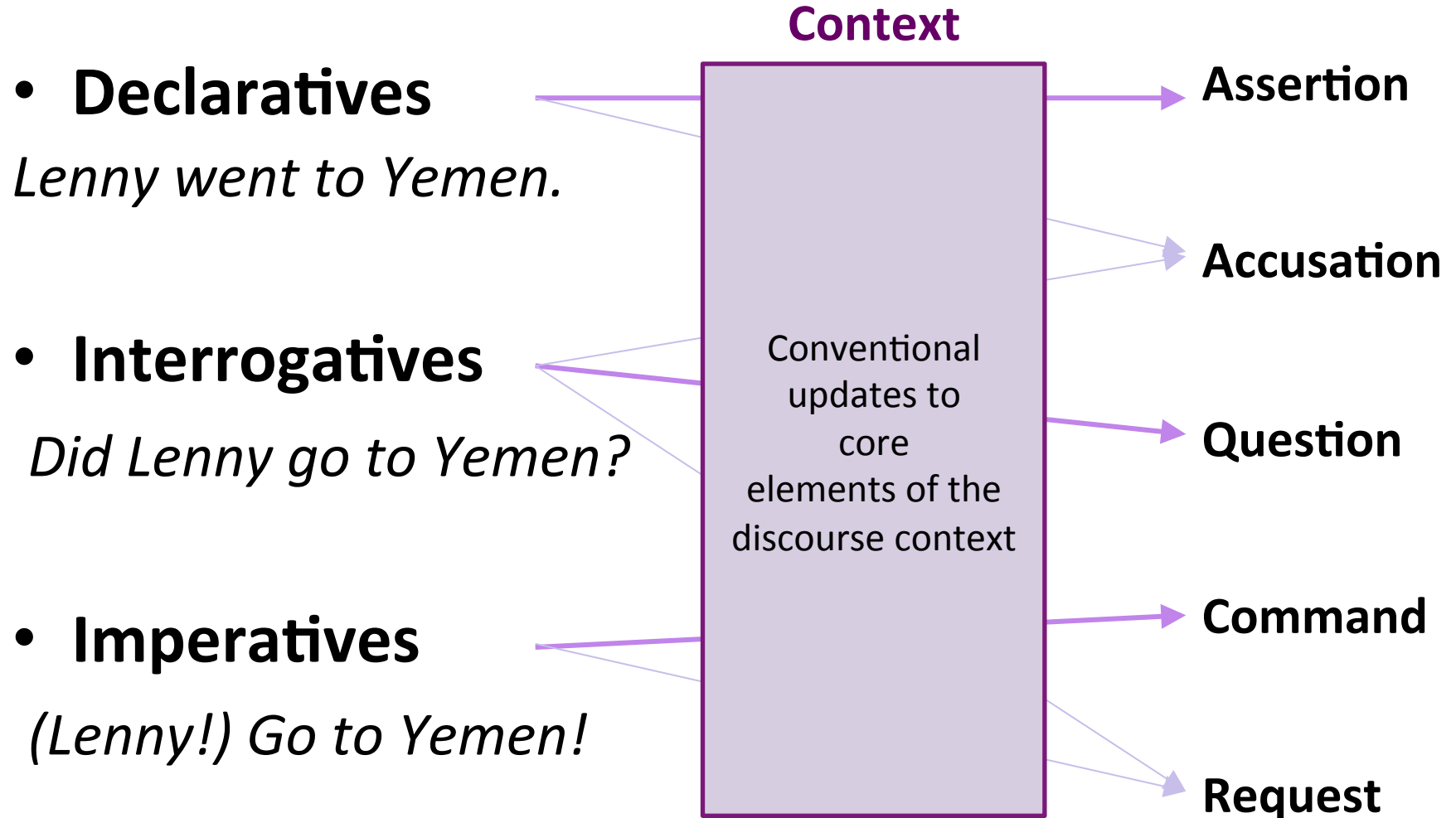
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<https://github.com/sunwooj/risingdec>

The Discourse Context



The Discourse Context

- **Declaratives**

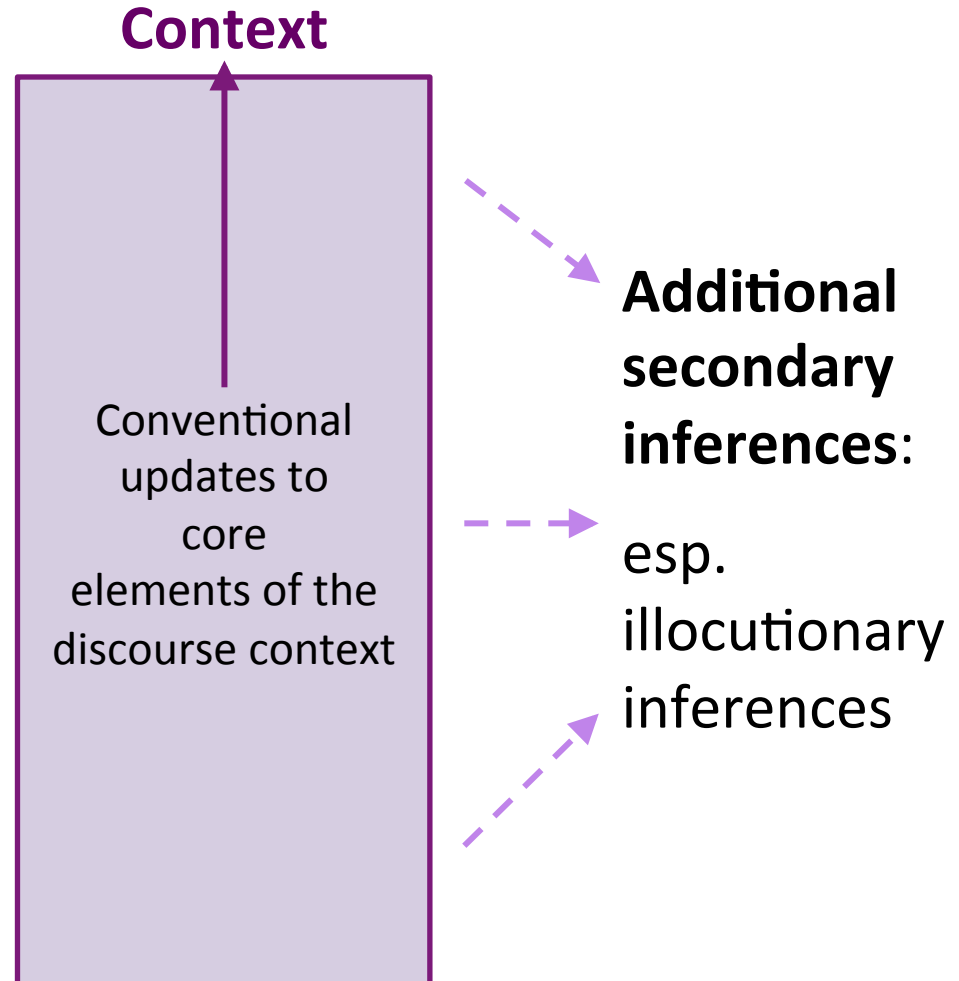
Lenny went to Yemen.

- **Interrogatives**

Did Lenny go to Yemen?

- **Imperatives**

(Lenny!) Go to Yemen!



The Extended Lewisian Model

Context

CG (common ground)
Stalnaker (1978)

Table (stack of issues)
Farkas & Bruce (2010)
cf. Roberts (1996)

DC_x (discourse
commitment set of X)
Hamblin (1971)
Gunlogson (2003)

...

(Krifka 2015, Malamud &
Stephenson 2015, a.o.)

- Context and the conversational scoreboard
- Modeling the discourse effects of diverse marked and unmarked sentence types
- Predicting felicitous response patterns

Speech acts, follow-up responses, etc.

Deriving Social Meanings

Context

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DC_x (discourse
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(Lauer 2013, Krifka 2015,
Malamud & Stephenson 2015,
a.o.)

- Can **social effects** such as **politeness** be derived from this as well?
- Problematizing the notion of **politeness**
 - systematic and predictable (Jeong & Potts 2016)
 - volatile, highly context-dependent

Refining the Question about Politeness

- Is it a monolithic, first-order inference, or is it rather derived from a combination of other more primitive pragmatic inferences?
- Do linguistic conventions directly prescribe it, or do they rather prescribe more abstract contextual updates that come to have close bearings on politeness inferences?
- In sum, what are the basic units on which politeness effects operate?

English rising declaratives

- A case study: **English rising declaratives**
- Previous work on politeness effects of English rising declaratives: have focused on a particular subset of the data (assertive uses)
- Expanding the data and establishing a core distinction
 - Inquisitive Rising Declaratives (IRDs)
 - Assertive Rising Declaratives (ARDs)

English rising declaratives

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Assertive vs. inquisitive rising declaratives

- **Assertive rising declaratives (ARDs)**: often function as *tentative assertions*
- **Inquisitive rising declaratives (IRDs)**: often function as *biased questions*
- Expected to compete with different canonical alternatives, falling declaratives and polar interrogatives

Assertive rising declaratives (ARDs)

(B is introducing herself to her new classmates)

B: Hello! My name is Lena? *I'm from Yemen?* **Assertive Rising Declarative (ARD)**

B: Hello! My name is Lena. *I'm from Yemen.* **Falling Declarative (FD)**

cf. B: Hello! My name is Lena. *#Am I from Yemen?*

Levon (2016),
Podesva (2011), a.o.

A: Did Laura meet a lot of celebrities?

B: (Um...) *Laura met President Obama?* **Assertive Rising Declarative (ARD)**

B: (Um...) *Laura met President Obama.* **Falling Declarative (FD)**

cf. B: *#Did Laura meet president Obama?*

Hirschberg & Ward (1992)
Malamud & Stevenson (2015)

- Intuition: generally sound *more polite* than their canonical alternatives (falling declaratives)

Inquisitive rising declaratives (IRDs)

(An actor talking to a stage director)

B: (So,) *I'm from Yemen?*

B: (So,) *Am I from Yemen?*

cf. *#I'm from Yemen-*

Inquisitive Rising Declarative (IRD)

Polar Interrogative (PQ)

Poschmann (2008), Gunlogson (2008)

A: I heard that Laura recently interviewed the president.

B: (What?) *Laura met President Obama?*

B: (What?) *Did Laura meet President Obama?*

cf. *#Laura met president Obama-*

Inquisitive Rising Declarative (IRD)

Polar Interrogative (PQ)

Pierrehumbert & Hirschberg (1990)

Gunlogson (2003), Farkas & Roelofson (2017)

- Intuition: generally sound *less polite* than their canonical alternatives (polar interrogatives)

ARDs vs. IRDs and their politeness effects

- Analysis to come:
 - ARDs and IRDs are associated with two distinct sets of context-updating conventions
 - These context-updating conventions can generate a wide range of observed patterns, one of which is the perceived difference in their politeness effects

An analysis couched in an extended Lewisian framework
- Before that: strengthening the empirical generalizations

ARDs vs. IRDs: motivating an experimental study

- No experimental or systematic distinction between ARDs and IRDs established so far
- Can our intuitions about **the difference in politeness effects between ARDs vs. IRDs** be captured more systematically?

An experimental study!

A more comprehensive account of the experimental results as well as additional analyses can be found in Jeong (2017)

Experimental hypotheses

- Different politeness effects
 - Other things being equal (content, speaker), **assertive rising declaratives (ARDs)** will be associated with significantly **higher politeness** ratings than its potential alternative, **falling declaratives**
 - Other things being equal (content, speaker), **inquisitive rising declaratives (IRDs)** will be associated with significantly **lower politeness** ratings than its potential alternative, **polar interrogatives**

Experiment Design

- An experimental study
 - Contingent on whether a given rising declarative is construed as an ARD vs. an IRD, do different politeness effects arise?
- But first: how to probe the core distinction (ARD vs. IRD) experimentally?
 - participants' illocutionary inferences
 - participants inferences on the more likely follow-up response

Probe 1: illocutionary inferences

Assertive rising declaratives (ARDs)

A: Did Laura meet a lot of celebrities?

B: (Um...) *Laura met president Obama?*

Information-giving (assertion)

Information-seeking (question)

Inquisitive rising declaratives (ARDs)

A: I heard that Laura recently interviewed the president.

B: (What?) *Laura met president Obama?*

Information-giving (assertion)

Information-seeking (question)

Probe 2: Likely follow-up response

(Gunlogson 2008)

- **Oh**: dependently commits the speaker to the addressee's commitment (i.e. the speaker is not a source);
- **Yes**: independently commits the speaker as a separate source.

A: The printer is broken.
B: *Oh*.

A: The printer is broken.
B: *Yes*.

Probe 2: likely follow-up response

Assertive rising declaratives (ARDs)

A: Did Laura meet a lot of celebrities?

B: (Um...) ***Laura met president Obama?***

A: ***Oh***, that's exciting.

A: **#Yes**, she did.

Inquisitive rising declaratives (IRDs)

A: I heard that Laura recently interviewed the president.

B: (What?) ***Laura met president Obama?***

A: ***Yes***, didn't you know?

A: **#Oh**, I see.

An experimental study

- A perception study that controlled for a variety of factors (content, speaker, etc.) and systematically tested for the difference between ARDs, IRDs, FDs, and PQs
 - Using prosodically manipulated auditory stimuli
- Participants heard a range of auditory stimuli, and judged:
 - More likely illocution / follow-up response
 - A variety of other contextual inferences (e.g., politeness)

Sample stimuli

- Recordings from 6 native speakers of AE (3 males, 3 females)
- e.g. “Lenny is from Yemen”
 - Falling declarative (NPA - 10 st.)
 - Rising declarative 1 (NPA + 6 st.)
 - Rising declarative 2 (NPA + 8 st.)
 - Rising declarative 3 (NPA + 10 st.)
 - Polar interrogative (NPA + 10 st.)

NPA: Nuclear pitch accent
st: semitone



Sample trial: experiment 1

- **Q0:** Please type in what you just heard.



- **Q1:** What is the most likely interpretation of the utterance? (experiment 1 & 2)
 - The speaker is **seeking information**.
 - The speaker is **giving out information**.
 - (The speaker is inviting.)
 - (The speaker is requesting.)

Illocutionary inference

Sample trial: experiment II & III

- **Q0:** Please type in what you just heard.
- **Q1:** Which of the following is the more likely response from the listener (addressee)?
(experiment 3)
 - **Oh**, I didn't know that.
 - **Yes**, didn't you know?

Likely follow-up response
(constraints on future discourse)

Sample trial: experiment I, II, III

- Q2-Q3

- Q4: How **polite** did the speaker sound?
(ratings from 0 to 100)

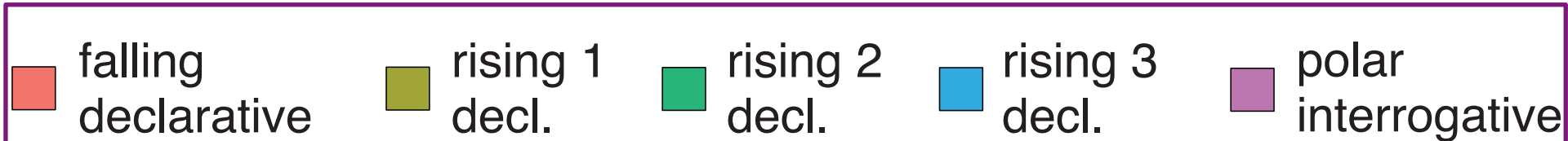
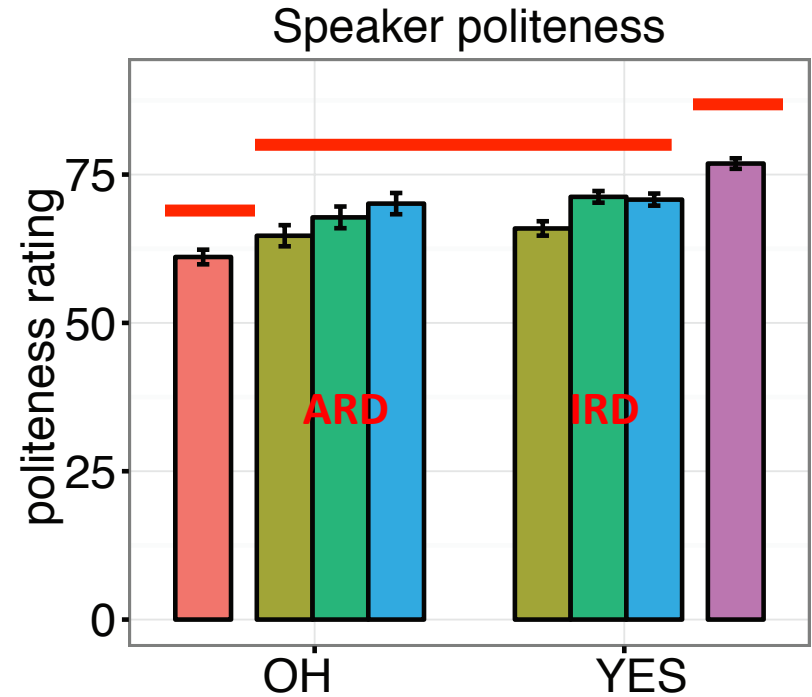
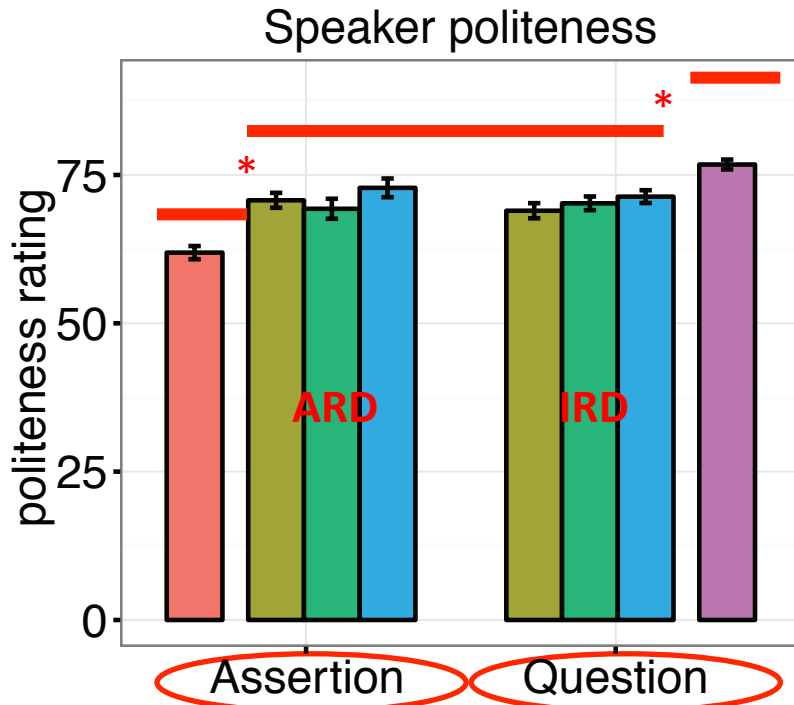
Perceived speaker politeness

- Q5-Q6

Procedure

- Three experiments (1, 2, 3) conducted: 5 trials in each experiment
- Experiment 1, 2 & 3 were nearly identical in design; they only differed in the range / number of sentences tested
- 1200 native speakers of American English recruited as participants (400 for each experiment)

Speaker politeness



Summary of the results

- In absolute terms, the politeness markings of ARDs and IRDs are about the same
- However, the contrast with their respective alternatives (FDs and PQs) show that their politeness effects are different pragmatically

- **Assertive rising declaratives**: sound significantly *more polite* than standard way of asserting (FDs)
- **Inquisitive rising declaratives**: sound significantly *less polite* than standard way of questioning (PQs)

The analysis

- Two distinct marked sentence types
 - **ARDs** (assertive)
 - **IRDs** (inquisitive)
- Two distinct sets of context-updating conventions
- Each set partially overlaps with the conventions for FDs and PQs, respectively

Jeong (2017)

(cf. Gunlogson (2003, 2008), Farkas and Bruce (2010), Westera (2013),
Malamud & Stephenson (2015), Farkas & Roelofson (2017))

The analysis

- Basic elements of the discourse context
 - **CG** (common ground): set of propositions mutually agreed upon by the participants (Stalnaker 1978)
 - **Table**: stack of issues raised (Farkas and Bruce 2010)
 - **DC_x** (commitment set): set of propositions that the participant X has publicly committed to during the conversation up to the relevant time (Gunlogson 2003)
 - **CG*** (projected set): set of possible future CGs, i.e., common grounds (Farkas and Bruce 2010)
 - **DC_x*** (projected commitment set): set of propositions that interlocutor X is expected to become committed to in the normal course of conversation (Malamud and Stevenson 2015)

Assertive rising declaratives

- **Assertive rising declaratives** (content: p)

- Add p to the Table.
- Add p to the speaker's current commitment set, DC_{Sp}
- Add MLI^p (a metalinguistic issue about p) to the Table

Is p a relevant enough answer?

Am I in the right social context to utter p ?

- cf. **Falling declaratives** (content: p)

- Add p to the Table
- Add p to the speaker's current commitment set, DC_{Sp}

Predictions for ARDs

- Felicity of *Oh*, assertion interpretations, substitutions with falling declaratives
 - ARDs incur full speaker commitment to the proposition p
 - ARDs share the same basic conventions as FDs
- Higher politeness ratings than falling declaratives (given experimentally controlled content/context)
 - ARDs raise an (inquisitive) MLI^p , whereas FDs do not raise any MLI^p
 - The former thus signals that the speaker wants to explicitly check in with the addressee about the validity, relevance, etc., of her contribution to the discourse

Inquisitive rising declaratives

- **Inquisitive rising declaratives** (content: $\{p, \neg p\}$)
 - Add $\{p, \neg p\}$ to the Table.
 - Add p to the projected commitment set of the addressee
 - NB. $[[\text{Rise-I}]] = \lambda p \lambda q [q = p \vee q = \neg p]$
- cf. **Polar interrogatives** (content: $\{p, \neg p\}$)
 - Add $\{p, \neg p\}$ to the Table
 - NB. $[[\text{INT}]] = \lambda p \lambda q [q = p \vee q = \neg p]$

Jeong(2017)

cf. Farkas & Roelofson (2017), Gunlogson (2003, 2008)

cf2. Truckenbrodt (2012), Biezma and Rawlins (2012)

Predictions for IRDs

- Infelicity of *Oh*, question interpretations, substitutions with polar interrogatives
 - IRDs do not give rise to any speaker commitment (its main function is to add an inquisitive issue to the Table)
 - IRDs share the same basic conventions as PQs
- Lower politeness ratings than polar interrogatives (given experimentally controlled content/context)
 - IRDs add the positive answer p to the addressee's projected commitment set, whereas PQs don't
 - The former thus signals that the speaker is less neutral with respect to the answer she expects from the addressee

Advantages of an extended Lewisian approach to politeness

- Since politeness effects are analyzed as second order inferences that are derived from more primitive conventions interacting with a variety of contexts, they are expected to be cancellable in certain contexts

A: Why do you hate him so much?

B: Um... *He is a racist idiot?*

MLP: Is p a good enough answer for you? (or) Isn't p a good enough answer for you already?

Conclusion

- There exists two different types of English rising declaratives that differ systematically in a variety of inferences that they generate (one of which is **politeness**)
- These can be captured by positing appropriate conventions for each within an extended Lewisian model of discourse

Conclusion

- Politeness effects are better analyzed as being derived from more primitive, context-updating conventions, rather than being directly stipulated.
- Implications and some remaining issues
 - Discourse moves as alternatives
 - Ultimate link to indexical meaning (cf. Beltrama 2016, Burnett 2017)

Thank you!

<https://github.com/sunwooj/risingdec>

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