



# Two Types of Rising Declaratives: Speaker Dependent Perception of Intonational Cues

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## Introduction

### Two Types

- (1) Assertive Rising Declaratives [3], [5]  
*My name is Anna?*  
*I'm calling from Edinburgh?*
- (2) Inquisitive Rising Declaratives [2], [4]  
*You met president Obama?*  
*The manager has been notified?*

### Main Argument

- (1) The distinction between assertive vs. inquisitive rising declaratives [1], [6]  
Psychologically real; brings about distinct conventional effects

**Summary:** Effects relating to speaker/addressee certainty about proposition, politeness, authority, etc. crucially depend on whether the listener classifies a rising declarative as a question or an assertion.

- (2) Factors that influence assertive vs. inquisitive interpretations: not restricted to differences in form (intonation); social factors

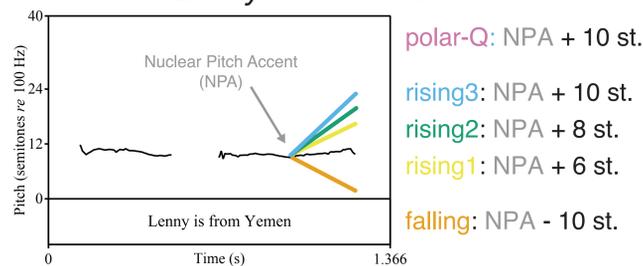
## Experiment

### Materials

Declarative/polar interrogative sentences with diverse likelihoods (e.g. Ellen is married, Maria was in a spaceship)

Produced by 4 speakers (2 female, 2 male)  
Manipulated in intonation (from level base)

e.g. *Lenny is from Yemen*  
*Is Lenny from Yemen*



### Procedure

400 participants from Amazon MTurk

(Q1) Most likely interpretation? (forced choice)

(a) info-giving (b) info-seeking (c)...

(Q2) How certain is the speaker that *p*? (0-100)

(Q3) How certain is the speaker that the addressee knows whether *p*? (0-100)

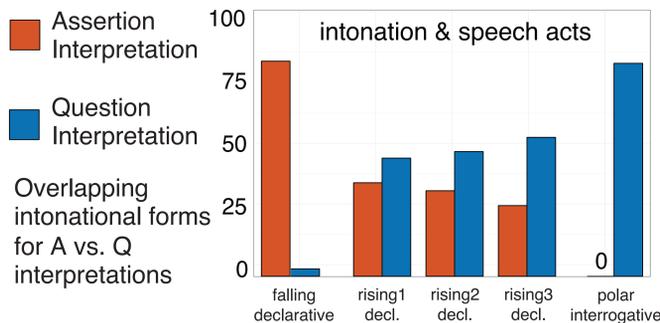
(Q4) How polite did s/he sound? (0-100)

(Q5) How authoritative did s/he sound? (0-100)

## Speech Acts

### Intonational effect

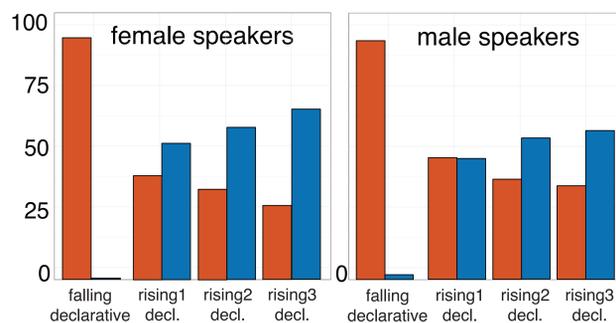
Participants' choices for illocution from Q1 (y-axis; in %) plotted by intonation (x-axis)



Steeper rises: **more Question interpretations** (gradient effect of intonation)

### Gender effect

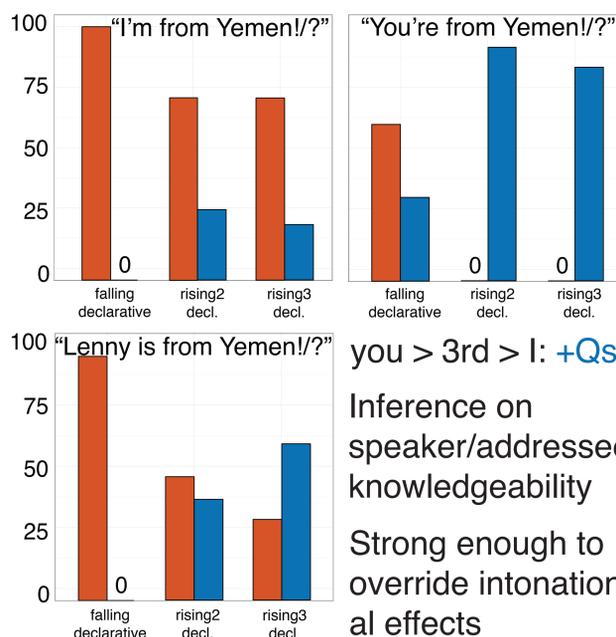
Choices for illocution (%) plotted by intonation and speaker gender (left/right panels)



Female speakers (with same degree of rise): **more Question interpretations**

### Conte(n/x)t effect

Choices for illocution (%) plotted by intonation & content (minimal triplet; 3 panels)



you > 3rd > I: **+Qs**

Inference on speaker/addressee knowledgeability

Strong enough to override intonational effects

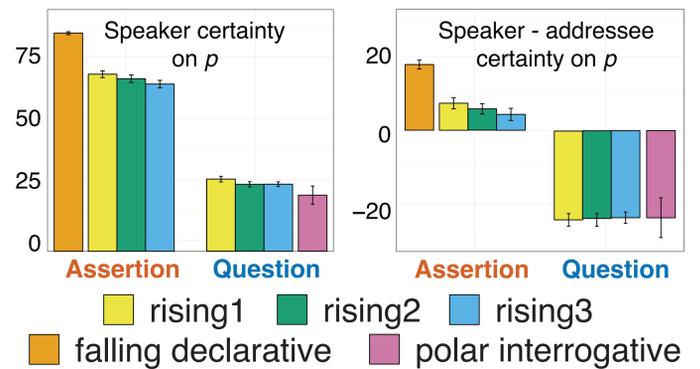
## Acknowledgements

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## Conventions

### Epistemic certainty

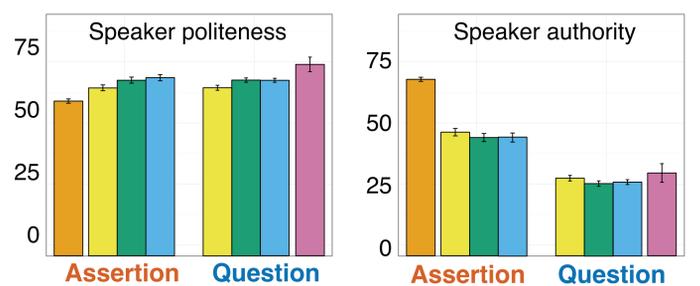
Rating for sp. certainty (Q2) & sp. - addr. certainty (Q2-Q3) plotted by illocution (Q1)



For the same range of tokens (*r1*, *r2*, *r3*):  
**Assertion:** speaker > addressee  
**Question:** addressee > speaker

### Social meanings

Rating for politeness (Q4) and authority (Q5) plotted by choices on illocution (Q1)



For the same range of tokens (*r1*, *r2*, *r3*), compared to canonical alternatives (*fd*, *pq*):

**Assertion:** more polite, less authoritative  
**Question:** less polite, similar authority

## Conclusion

Choice between assertive vs. inquisitive rising declaratives sociolinguistically meaningful: e.g. more Qs attributed to women

Different conventional & social effects for assertive vs. inquisitive rising declaratives

Full data & experiment:

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

## References

[1] Fletcher, Janet, Esther Grabe, and Paul Warren. 2005. Intonational variation in four dialects of English: The high rising tune. In Sun-Ah Jun (ed), *Prosodic Typology: The Phonology of Intonation and Phrasing*. 390-409. Oxford: Oxford University Press.

[2] Gunlogson, Christine. 2008. A question of commitment. *Belgian Journal of Linguistics* 22(1). 101-136.

[3] Levon, Erez. 2016. Gender, interaction and intonational variation: The discourse functions of high rising terminals in london. *Journal of Sociolinguistics*, 20(2). 133-163.

[4] Malamud, Sophia and Tamina Stephenson. 2015. Three ways to avoid commitments: Declarative force modifiers in the conversational scoreboard. *Journal of Semantics* 32(2). 275-311.

[5] Podesva, Robert. 2011. Salience and the social meaning of declarative contours: Three case studies of gay professionals. *Journal of English Linguistics* 39(3). 233-264.

[6] Ritchart, Amanda and Amalia Arvaniti. 2014. The form and use of uptalk in southern californian english. *Proceedings of Speech Prosody* 7. 20-23.