

The Intonation of French Questions

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Introduction

This study investigates the intonation of French questions, with a focus on *wh*-in-situ content questions such as (1).

(1) Elle est allée où il y a un mois?
She went where a month ago?

Cheng and Rooryck [2] claim that in such questions, the Q-feature in C is checked by an intonational morpheme, which by default carries the yes/no sentence-final rising intonation. There is therefore no need for *wh*-movement.

If an overt Q-feature *est-ce que* is present, however, as in (2), overt *wh*-movement checks the Q-feature.

(2) Où est-ce que elle est allée il y a un mois?
Where did she go a month ago?

These claims predict that *wh*-in-situ questions should have the same rising intonation as yes/no questions.

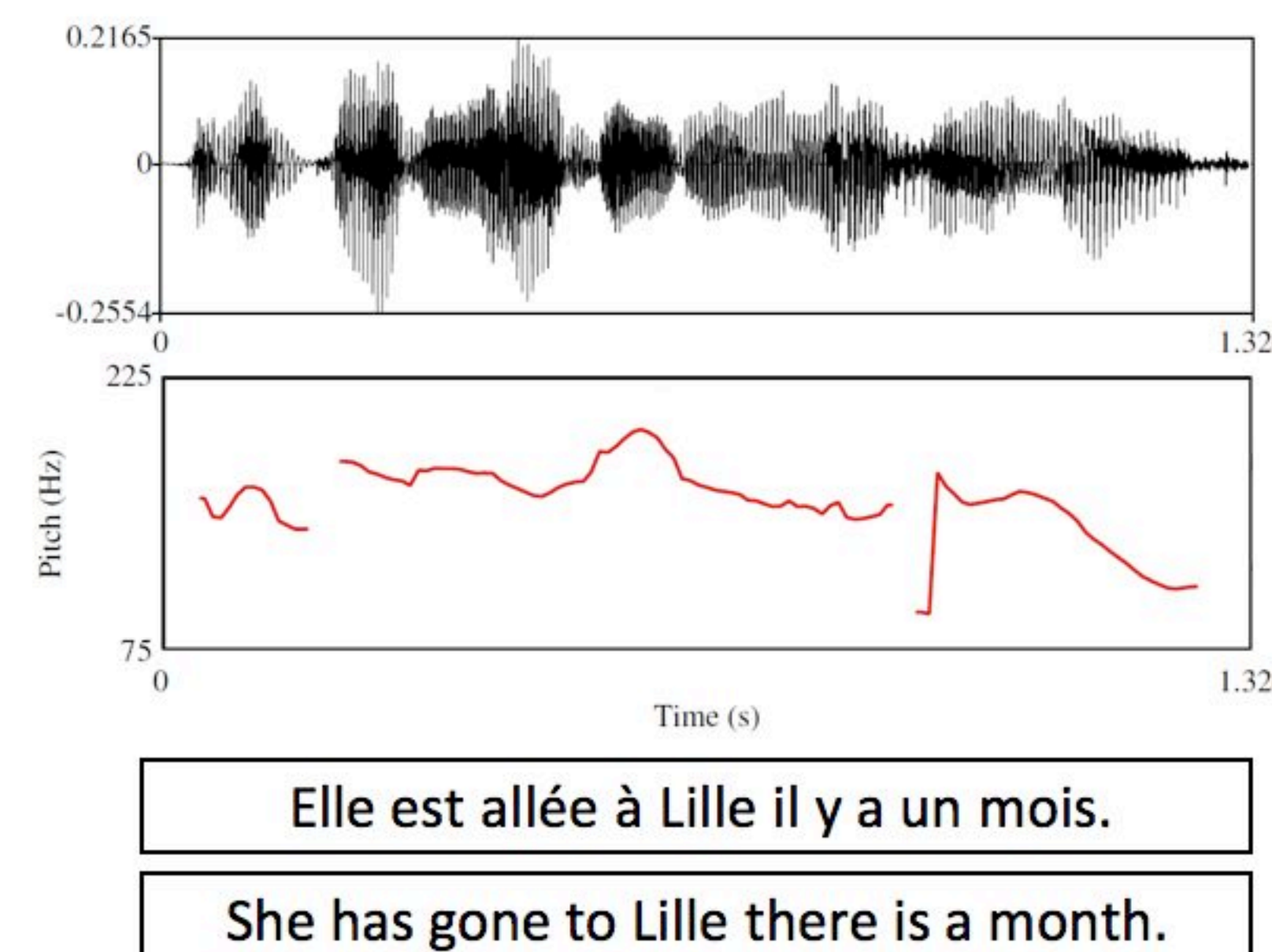
Little to no experimental research has been done to address these theoretical claims. Moreover, previous experimental work on the intonation of French questions has lacked the rigor and controls necessary to allow for a conclusive analysis. [3], [4], [5]. This study seeks to fill this gap and to provide experimental evidence for such theoretical claims about French syntax and prosody.

Experimental Data

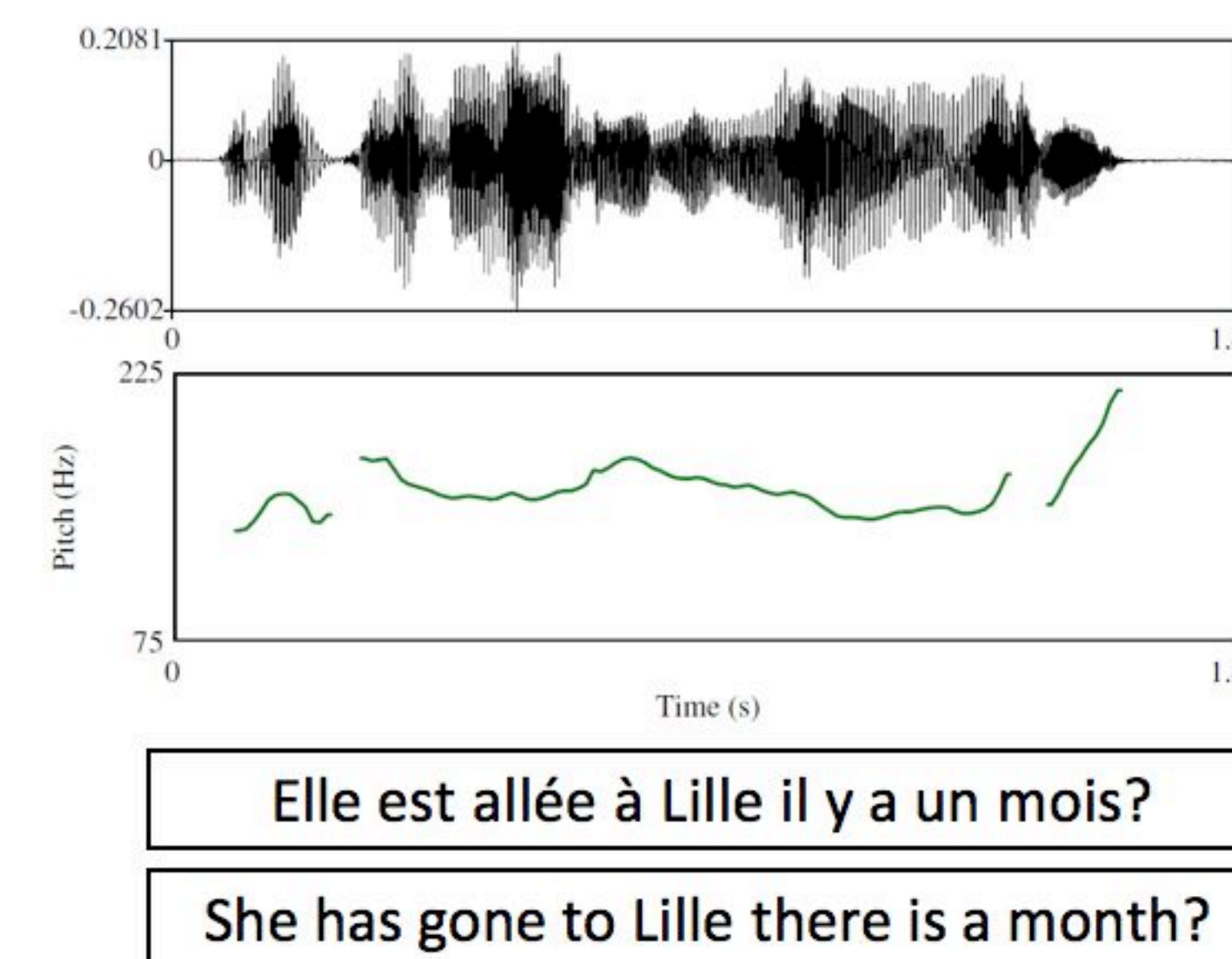


% Final Rise

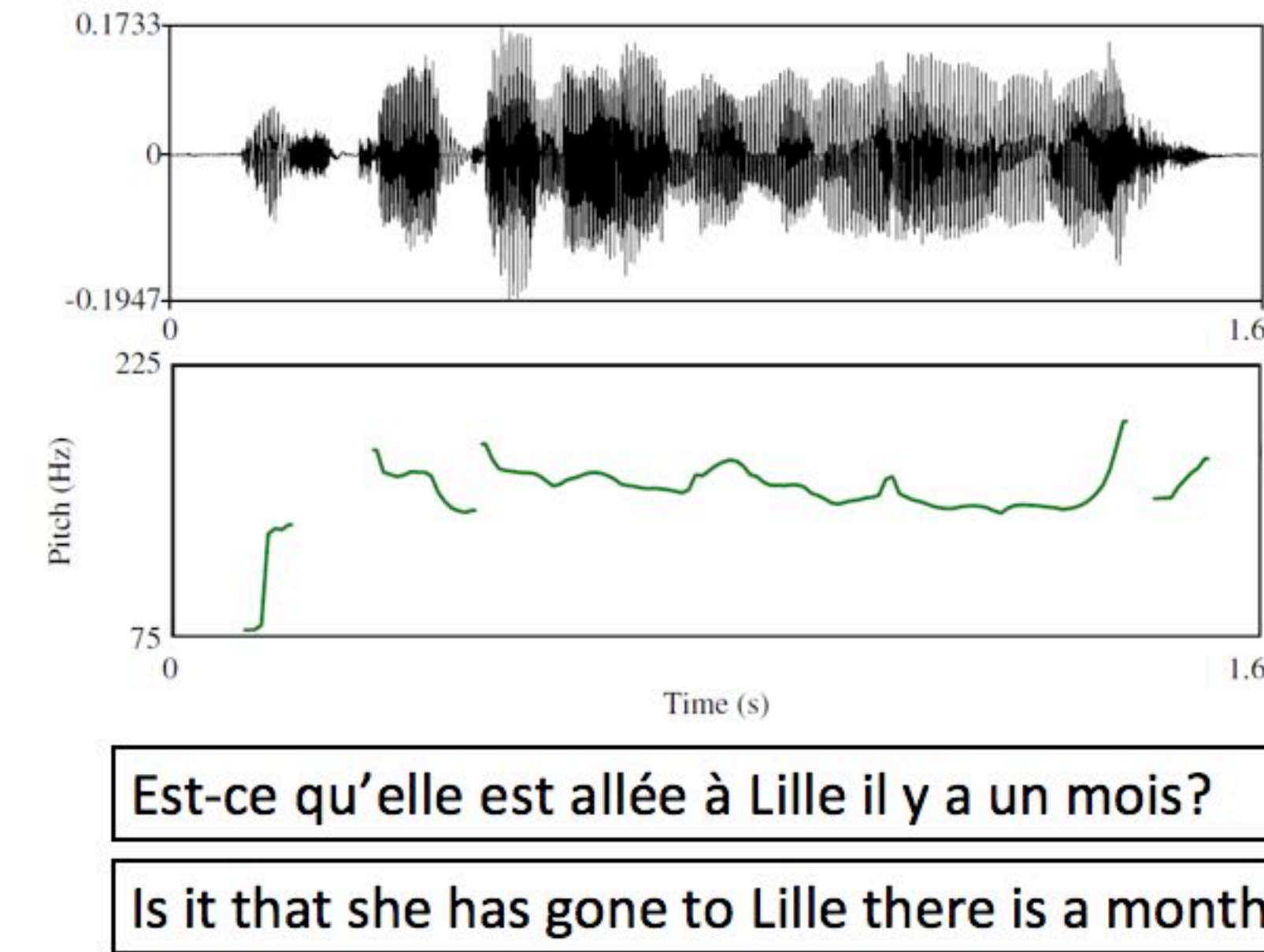
Declarative: 5%



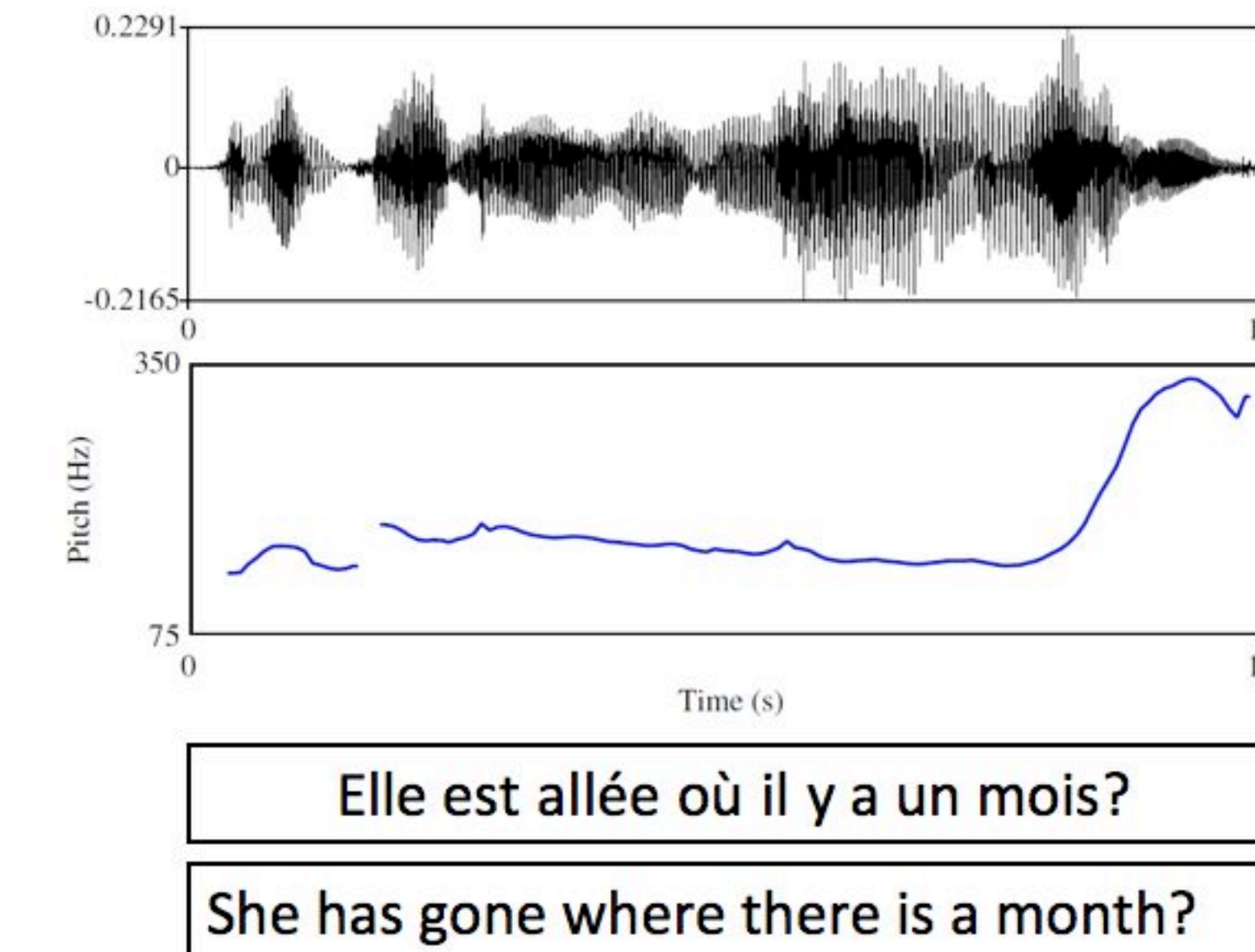
Yes/No Intonation Only: 98%



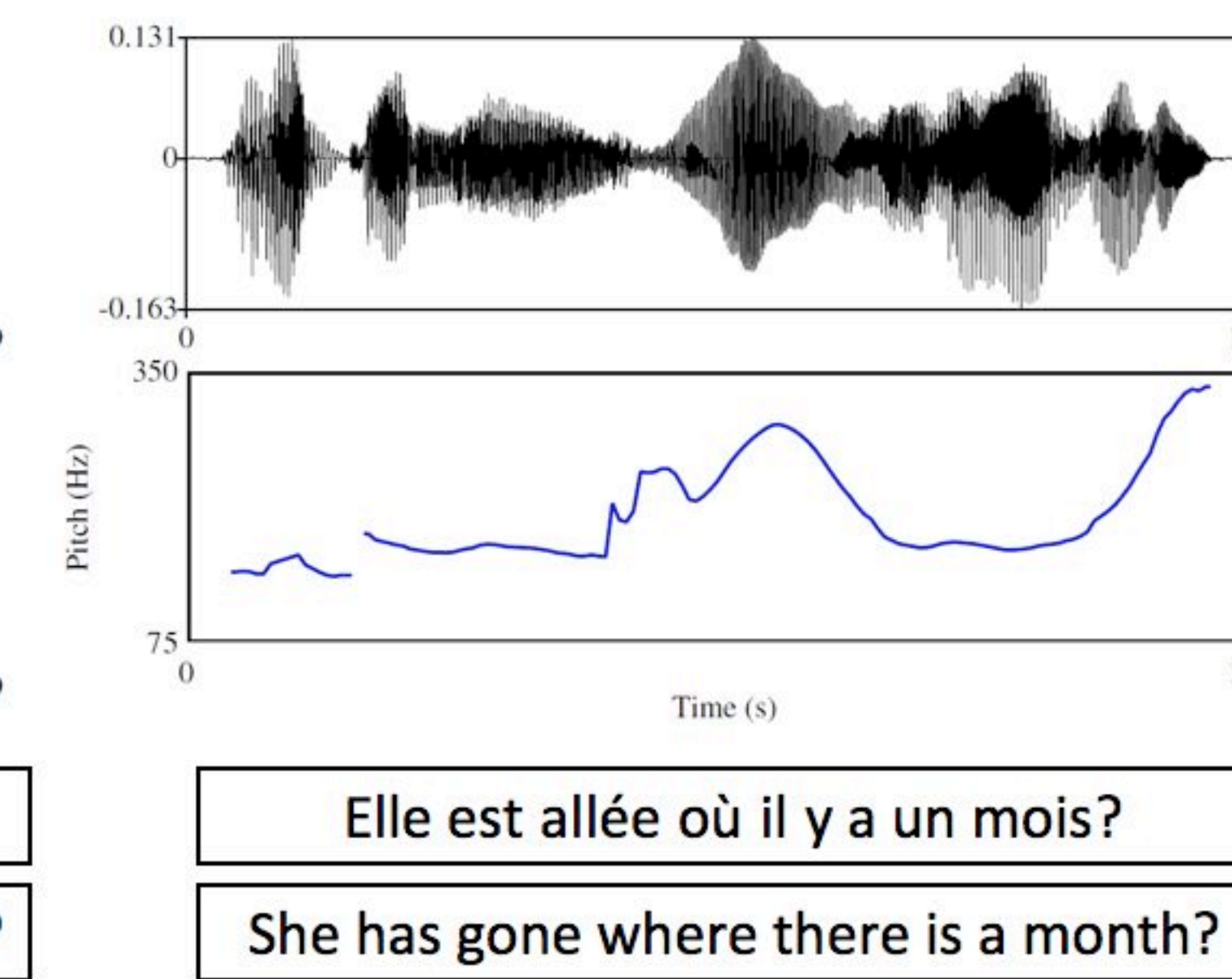
Yes/No *Est-ce que*: 85%



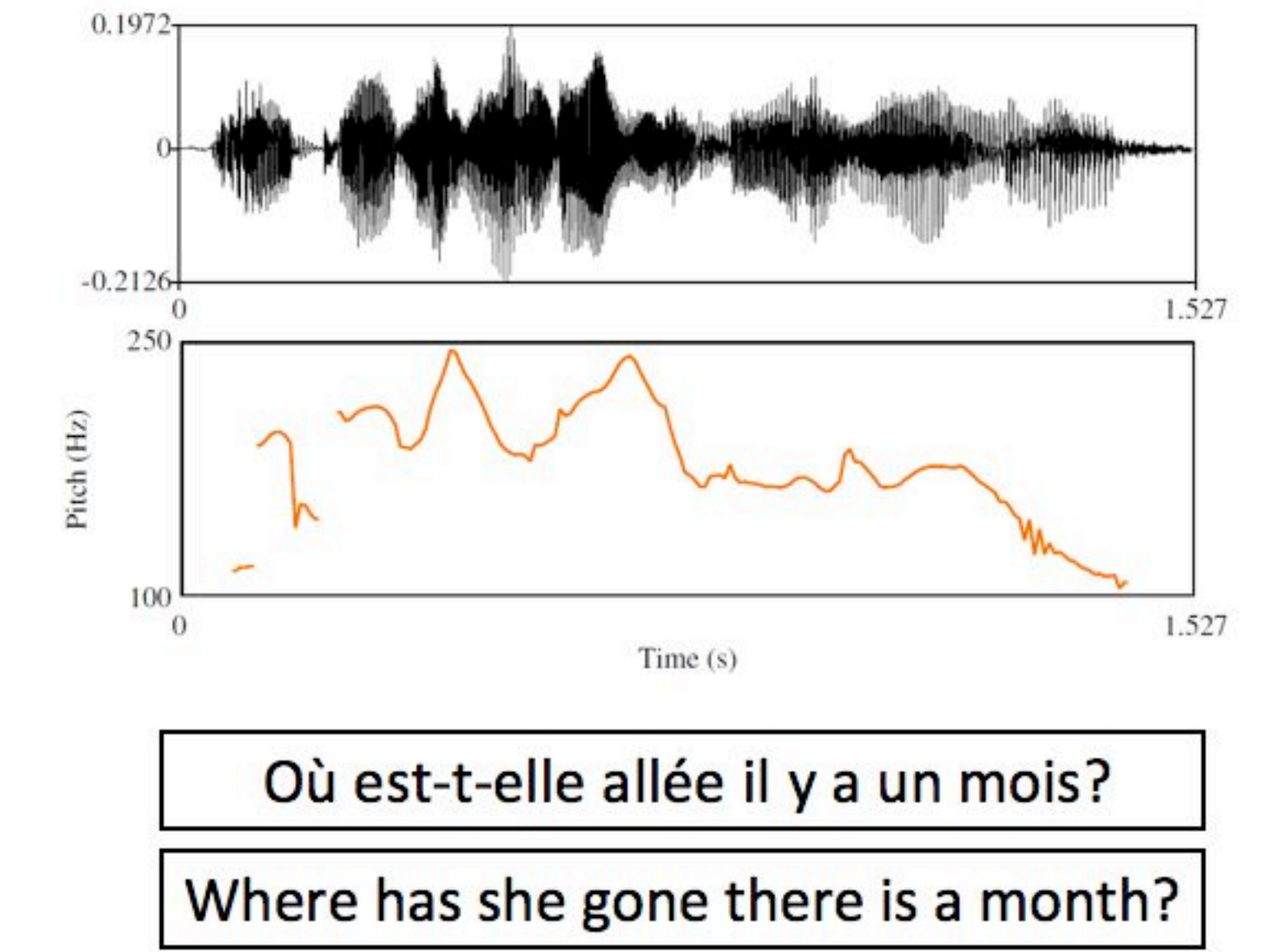
Wh-In-Situ Content: 67%



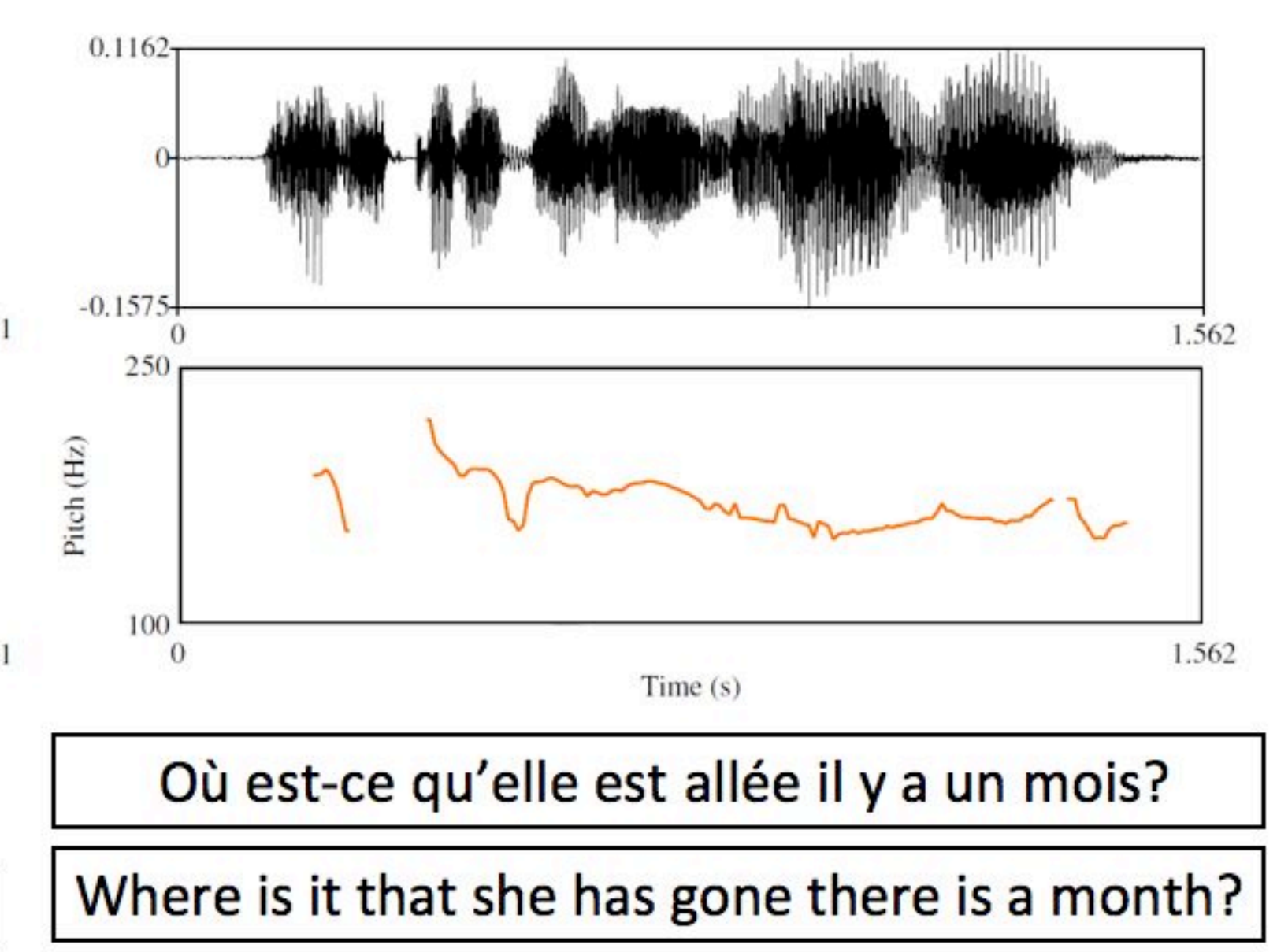
Wh-In-Situ Echo: 68%



Moved *Wh*-Inversion: 43%



Moved *Wh*-*Est-ce que*: 40%



Methodology

Participants

12 native French speakers

Stimuli

French sentences and questions (minimal pairs)

- Declarative sentence
 - Elle est allée à Lille il y a un mois.
- Yes/No question (marked by *est-ce que*)
 - Est-ce qu'elle est allée à Lille il y a un mois?
- Yes/No question (marked by intonation)
 - Elle est allée à Lille il y a un mois?
- Wh*-in-situ content question
 - Elle est allée où il y a un mois?
- Wh*-in-situ echo question
 - Elle est allée où il y a un mois?
- Moved *wh*-question (marked by subject-auxiliary inversion)
 - Où est-t-elle allée il y a un mois?
- Moved *wh*-question (marked by *est-ce que*)
 - Où est-ce qu'elle est allée il y a un mois?

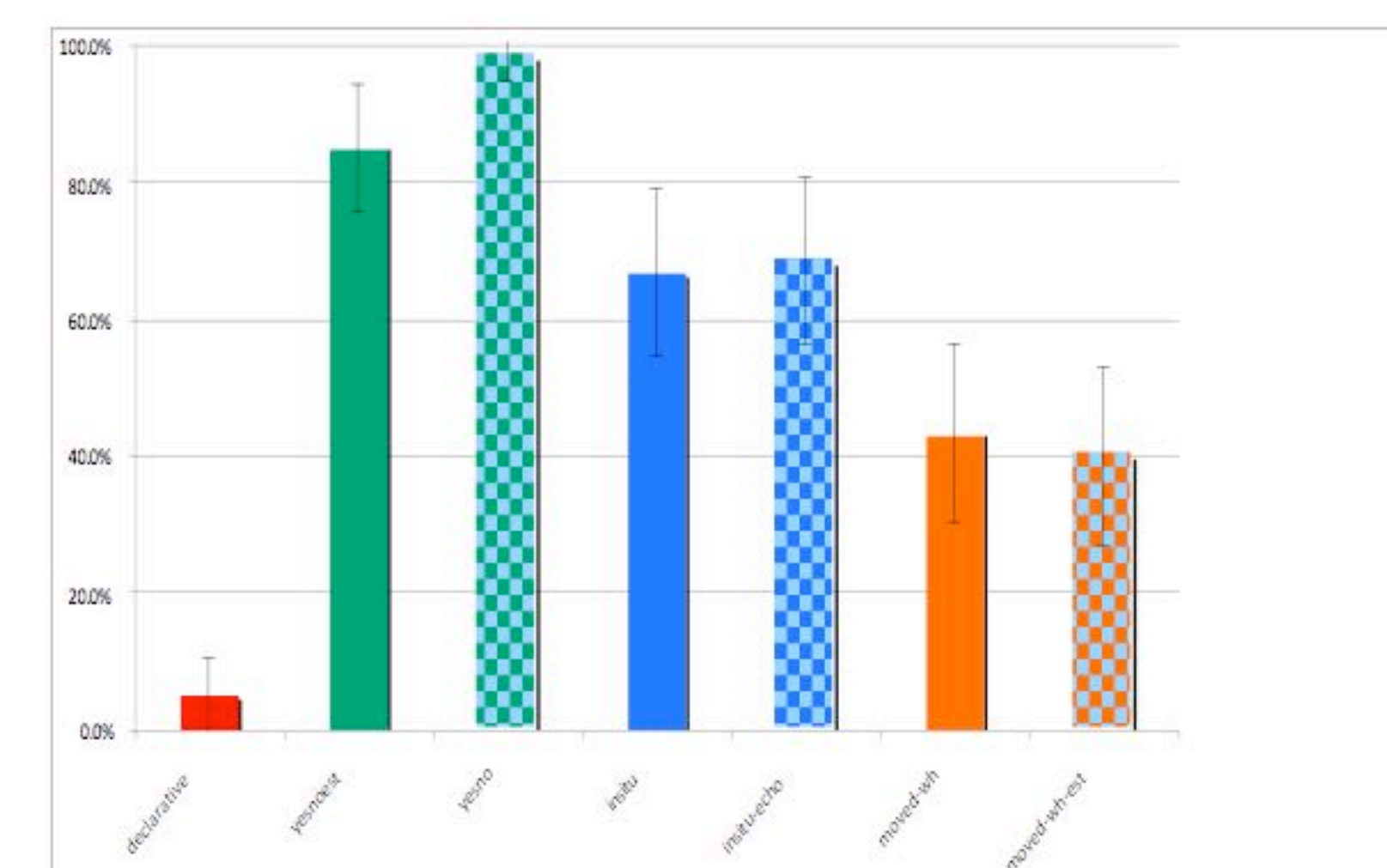
Procedure

- Sentences were embedded in discourse contexts to simulate a natural conversational speech pattern.
- Sentences were randomized in order to avoid carryover effects.
- Only sonorants were used where possible.
- No *wh*-in-situ was sentence final.
- Participants were recorded in a sound-proof recording booth in the Rutgers Phonetics Lab.
- Target sentences were analyzed acoustically with Praat software for sentence final rise and other prosodic patterns.

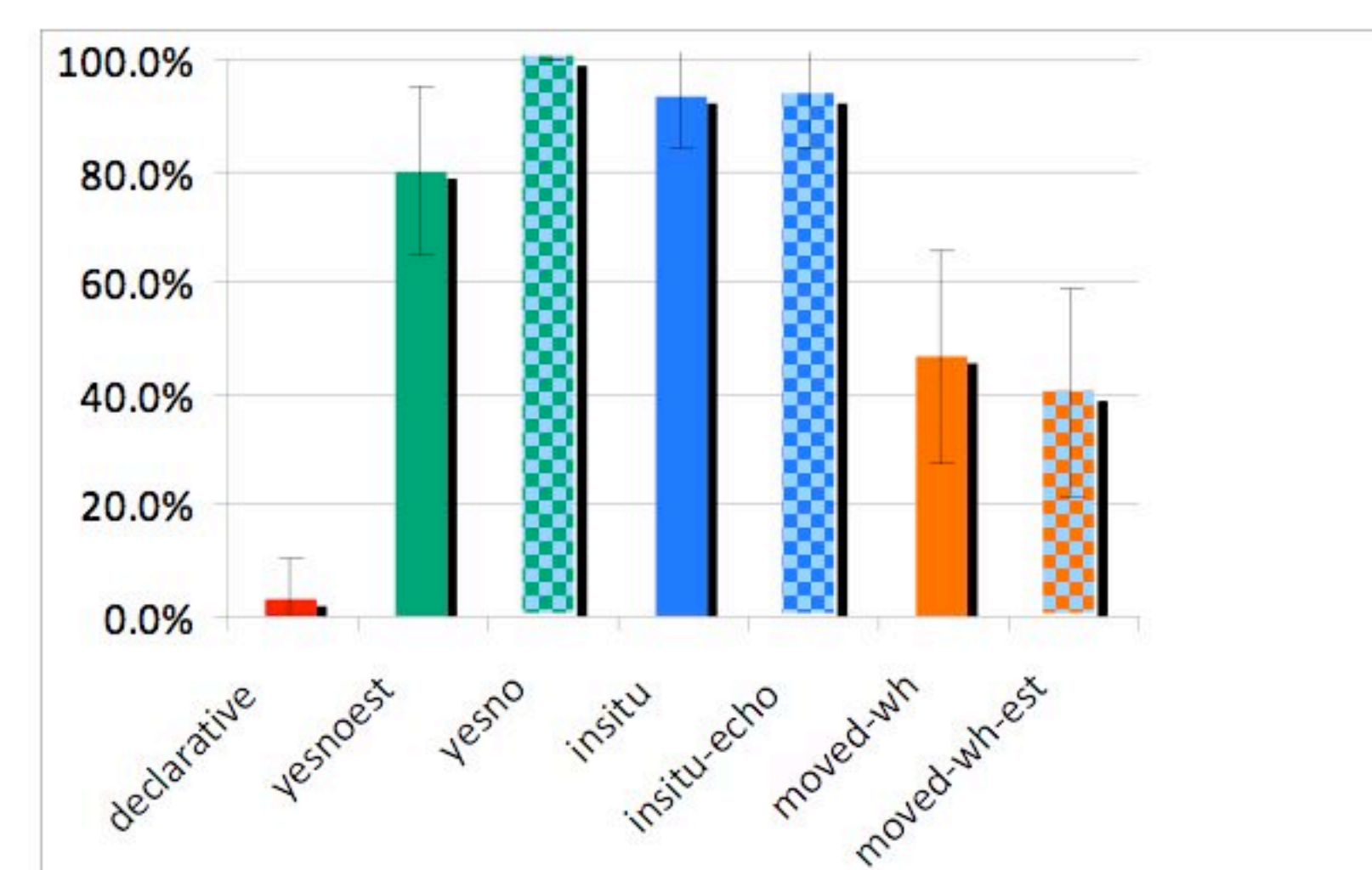
Predictions & Analysis

- Declarative sentences should not exhibit a final rise.
- Moved *wh*-questions should not exhibit a final rise. [1]
- Both types of Yes/No questions should should exhibit a final rise.
- Wh*-in-situ content questions should exhibit a final rise.
- Wh*-in-situ echo questions may also exhibit a final rise.

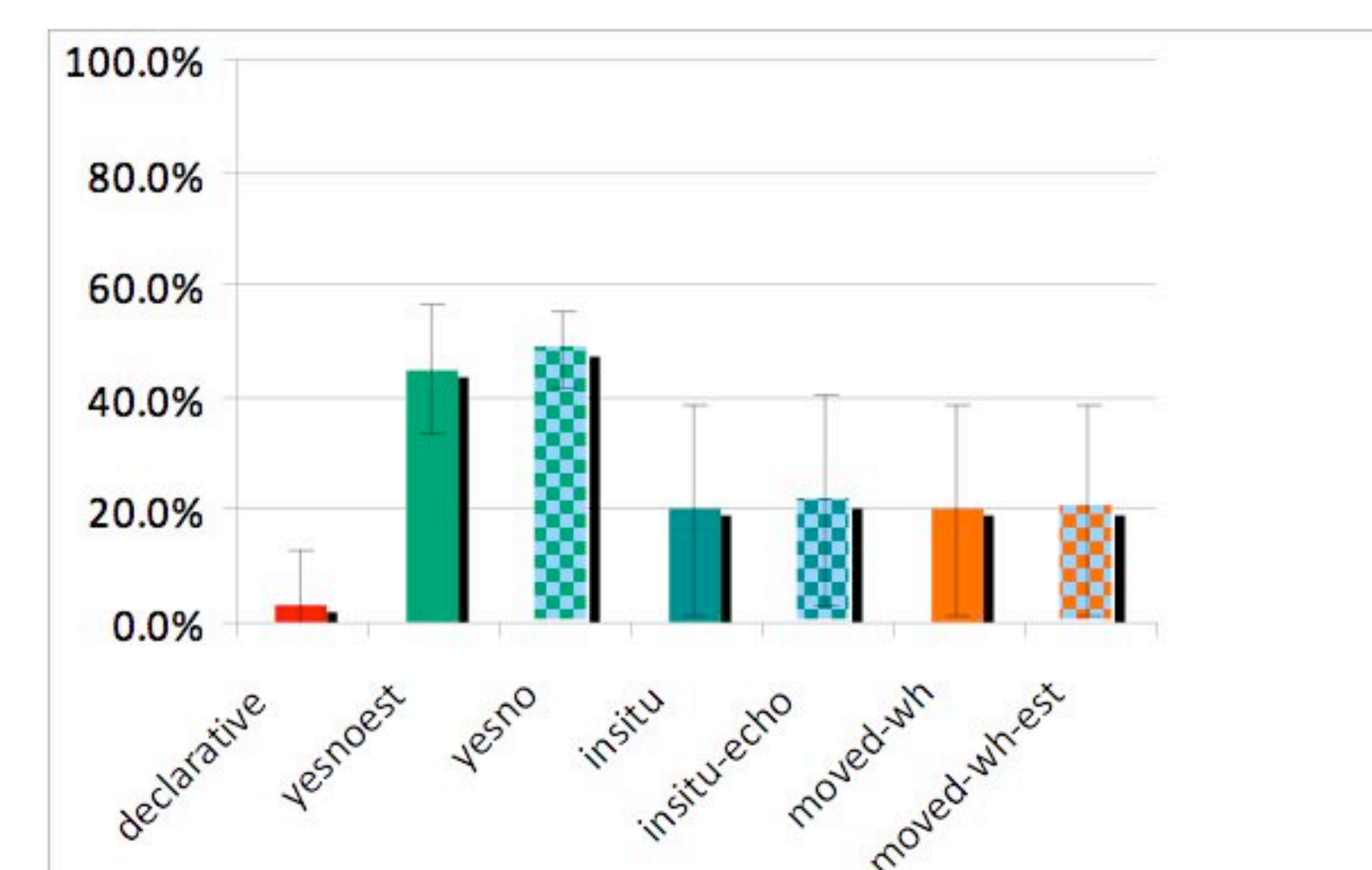
% Final Rise



Group 1



Group 2



Conclusions

- The baseline cases (declarative, yes/no, *wh*-moved) confirmed our predictions.
- The predictions about *wh*-in-situ content questions were confirmed for the majority of participants.
 - 7 participants gave them a final rise 91.4% of the time.
 - 5 participants gave these sentences a final rise 32% of the time.
- Cheng & Rooryck's theoretical claims are therefore confirmed for most participants, but their claims may be too strong.
- Further analysis will shed light on the possibility of item effects, participant-specific intonation styles, and other features that may account for the lower percentage for a subset of participants.
- Our experimental research will:
 - Set a standard for providing experimental data to support theoretical claims.
 - Open the door for further cross-linguistic research on the nature of questions and other possible topics such as the effect of intonation patterns on L2 language learners.

References

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- Cheng, L. L., & Rooryck, J. (2000). Licensing *wh*-in-situ. *Syntax*, 3 (1), 1-19.
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