

HIGH RISE TERMINALS IN SOUTHERN CALIFORNIAN ENGLISH



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INTRODUCTION

- High Rise Terminals (HRTs) or “uptalk” are rising pitch movements at the end of utterances.
- HRTs in Australian, New Zealand, and British English have been well-studied (Fletcher et al., 2005 for a review), but American English HRT usage has not.
- Gender differences have been reported, but pragmatic differences are less well understood.

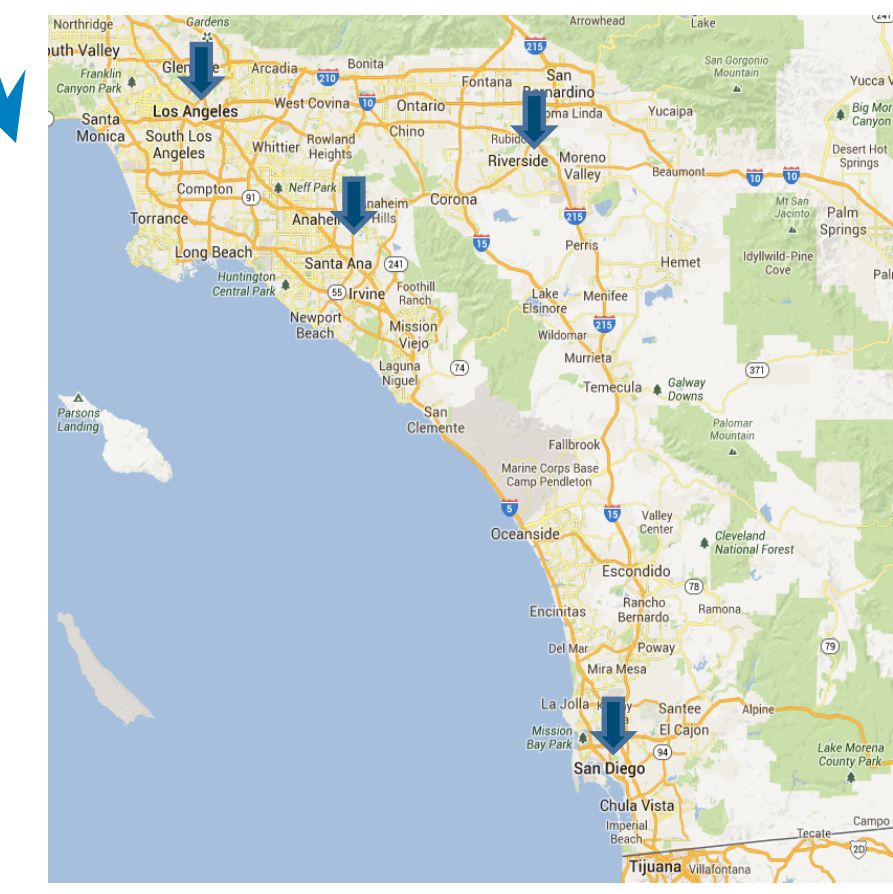
Research Questions

- What are the uses of HRTs in Southern Californian (SoCal) English in particular?
- Are different pragmatic functions related to phonologically different melodies, as in Australian English in which HRTs used with statements are analyzed as L* H-H% and those used with questions as H* H-H%?
- Do sociolinguistic variables such as gender, region and social status affect HRTs and if so, how?
 - Do sociolinguistic variables affect the phonetic realization of HRTs?
 - Or do they result in phonological variation as well?
 - Do sociolinguistic variables affect the distribution of melodies and the discourse functions of HRTs?

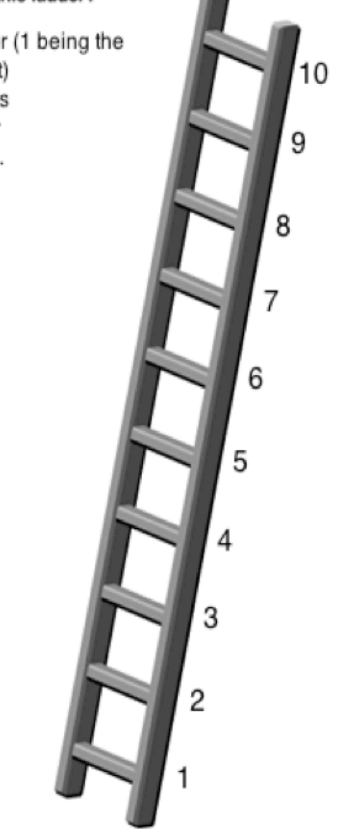
METHODS

Participants

- 23 Native Southern Californian speakers (12 female, 11 male) from San Diego (7), Orange (6), Los Angeles (8), and Riverside Counties (2)
- Ethnic background: 12 Asian, 6 Hispanic, 5 White; 8 speakers reported being bilingual
- For SES, speakers were categorized using the Mac Arthur Scale of Subjective Social Status as Lower (1-4; n = 4), Middle (5-7; n = 13) and Upper (7-10; n = 6)

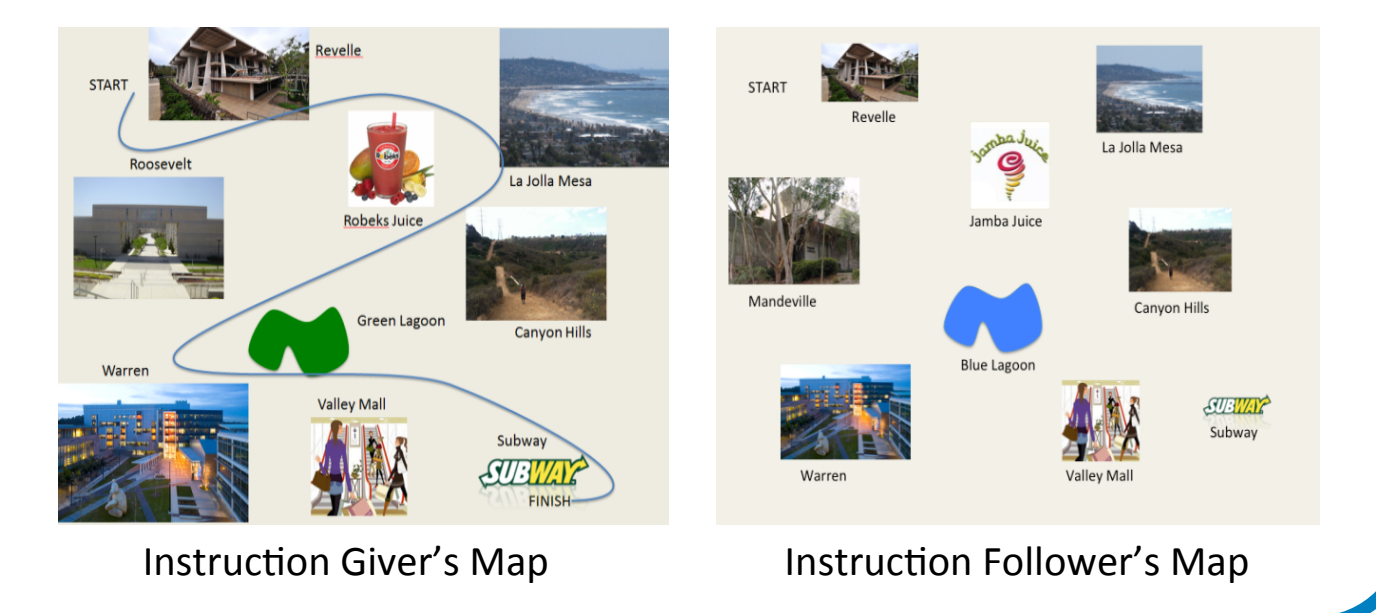


Think of this ladder as representing where people stand in their communities. People often commonly in different areas place their feet in a unique way to their community. Please pick a rung on the ladder (1 being the lowest and 10 being the highest) where you think you stand at this time in your life, relative to other people in your community.



Tasks

- Retelling of a (muted) video clip of a popular television sitcom (Clip Retell)
- Map Task with local landmarks



ANALYSIS & RESULTS

Analysis

Type of HRT: HRTs were categorized as rises proper or as plateaux, depending on the type of final pitch movement: *relatively steady pitch movement with <10 Hz difference between two adjacent F0 points on the pitch track (plateau) or >10 Hz difference between two adjacent F0 points (rise)*

Function of HRT: HRTs were categorized for discourse function, based on functions observed in the data: question, statement, floor holding, confirmation request. In ambiguous cases, a forced choice was made, with whichever the most prominent discourse function appeared to be.

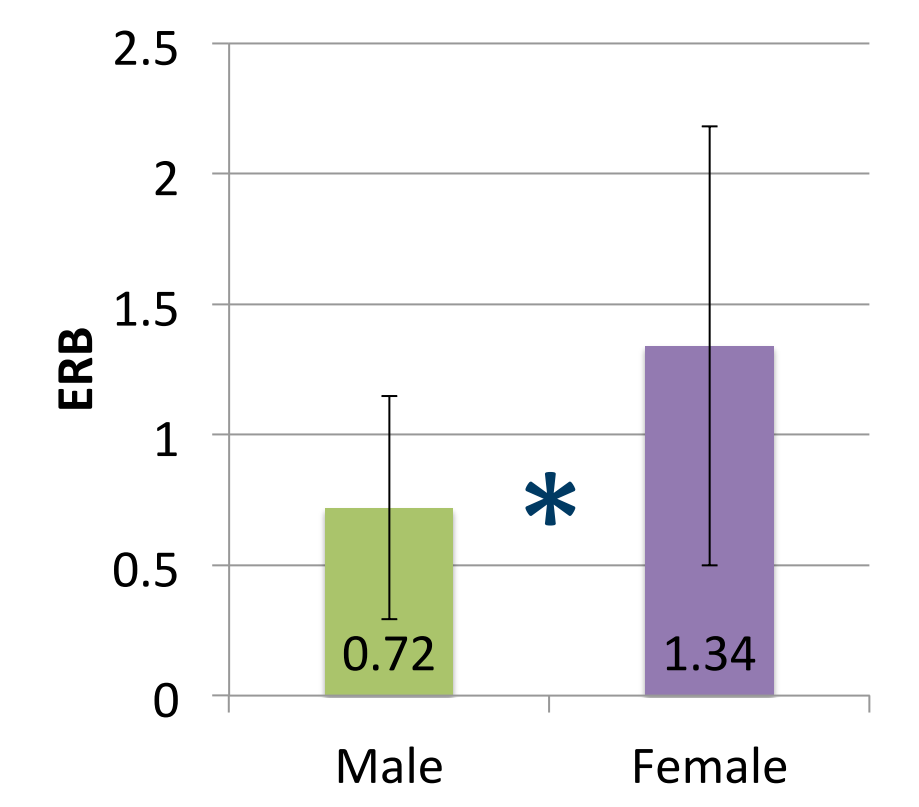
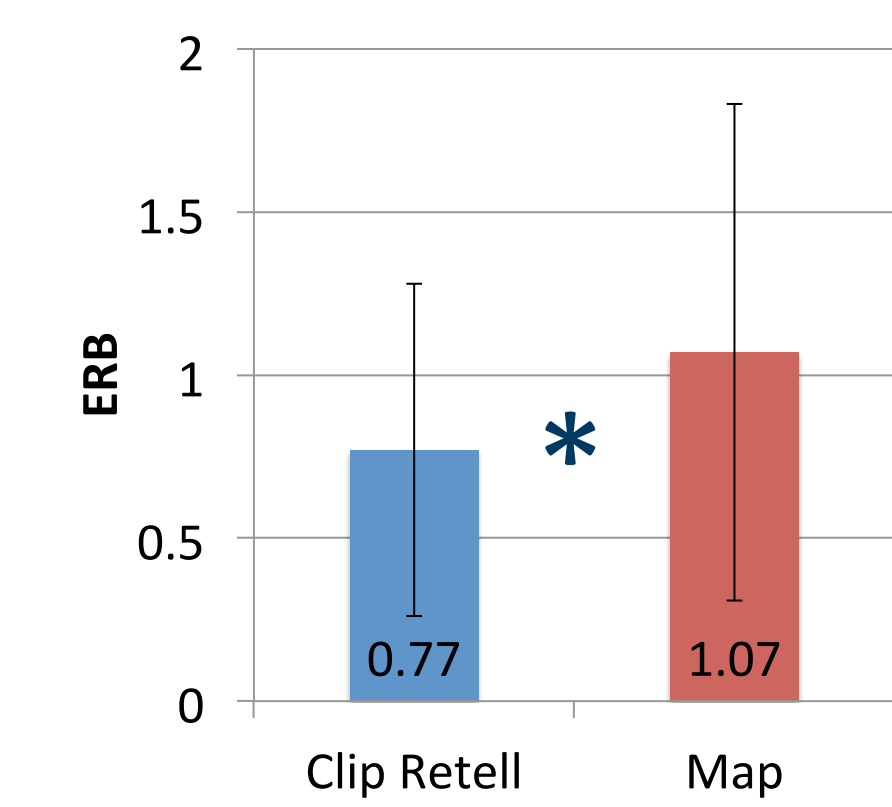
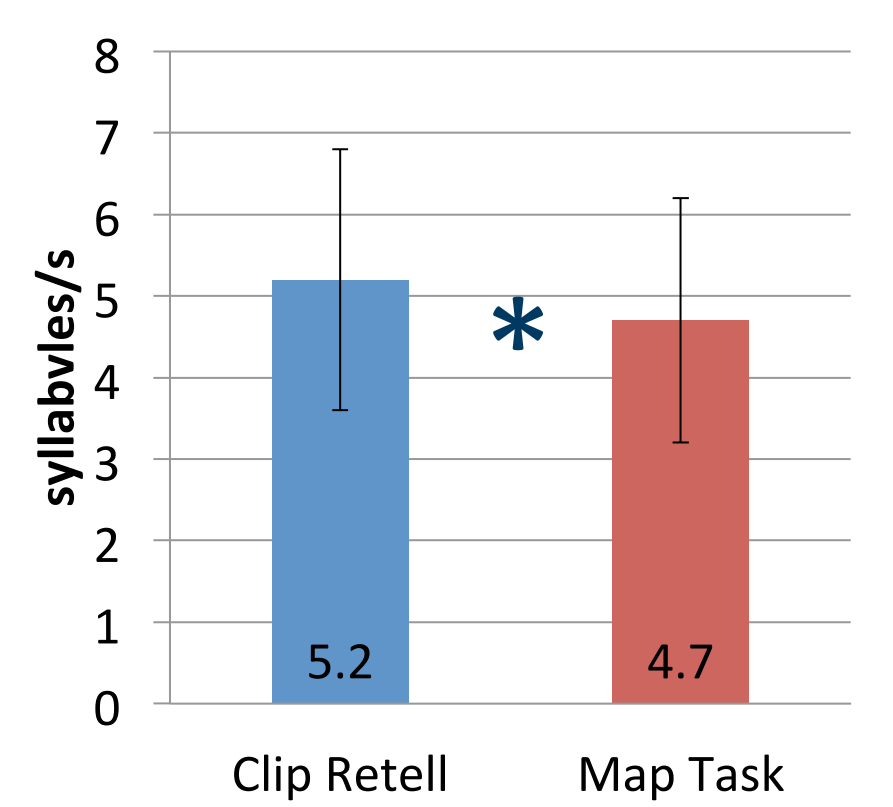
Alignment: onset of rise with respect to the last stressed syllable of the utterance

Pitch excursion: excursion of the rise (F0 min – F0 max of rise)

The data were analyzed using linear mixed-effects models with speaker as random effect and task, gender, region, SES, and discourse function as fixed effects.

Speaking Rate and Pitch Range

- Speakers spoke significantly faster in Clip Retell than in the Map task [p<0.001]
- Speakers used a larger pitch range in the Clip Retell than in the Map Task [p<0.001]
- Females used a larger pitch range than males [p<0.001]



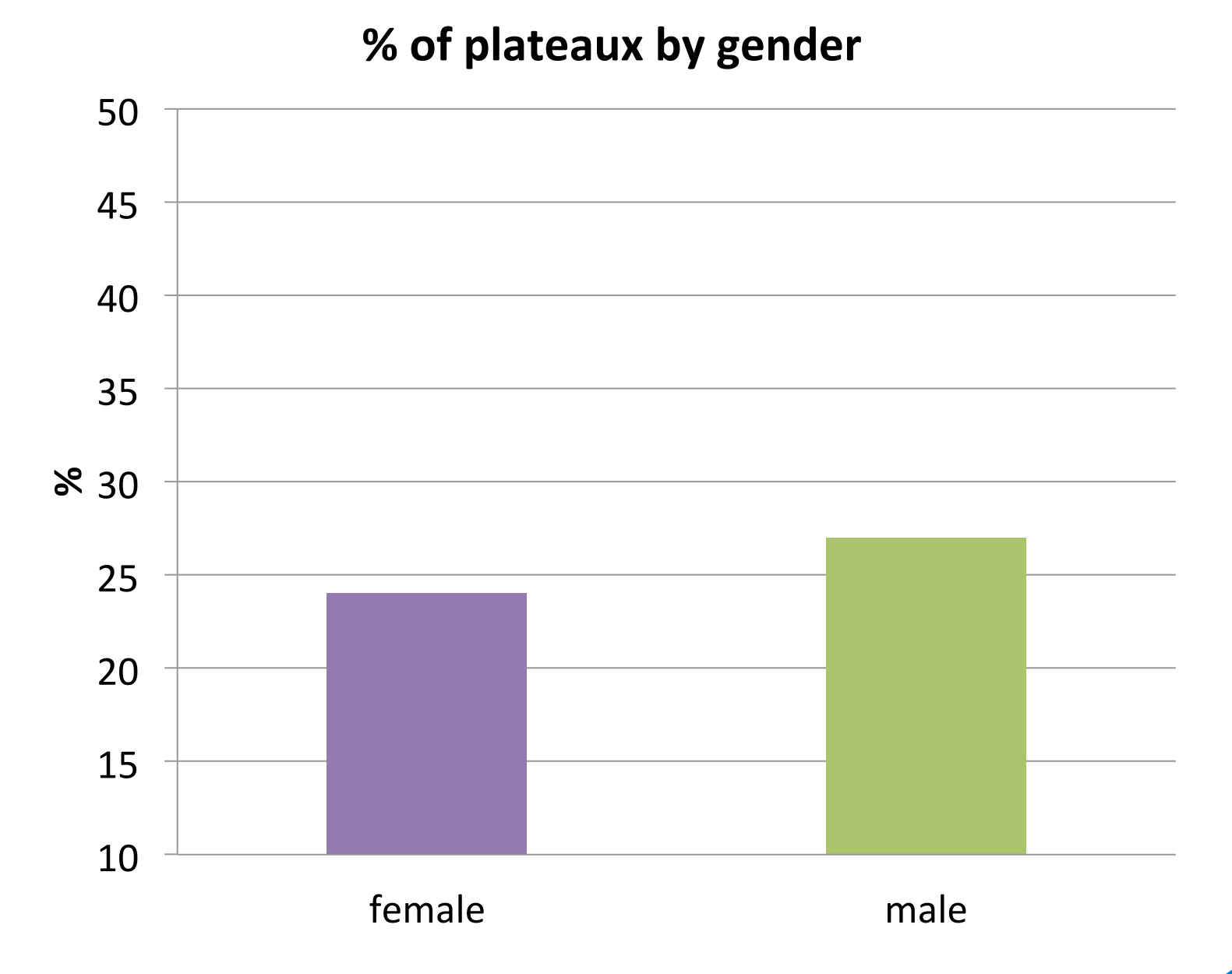
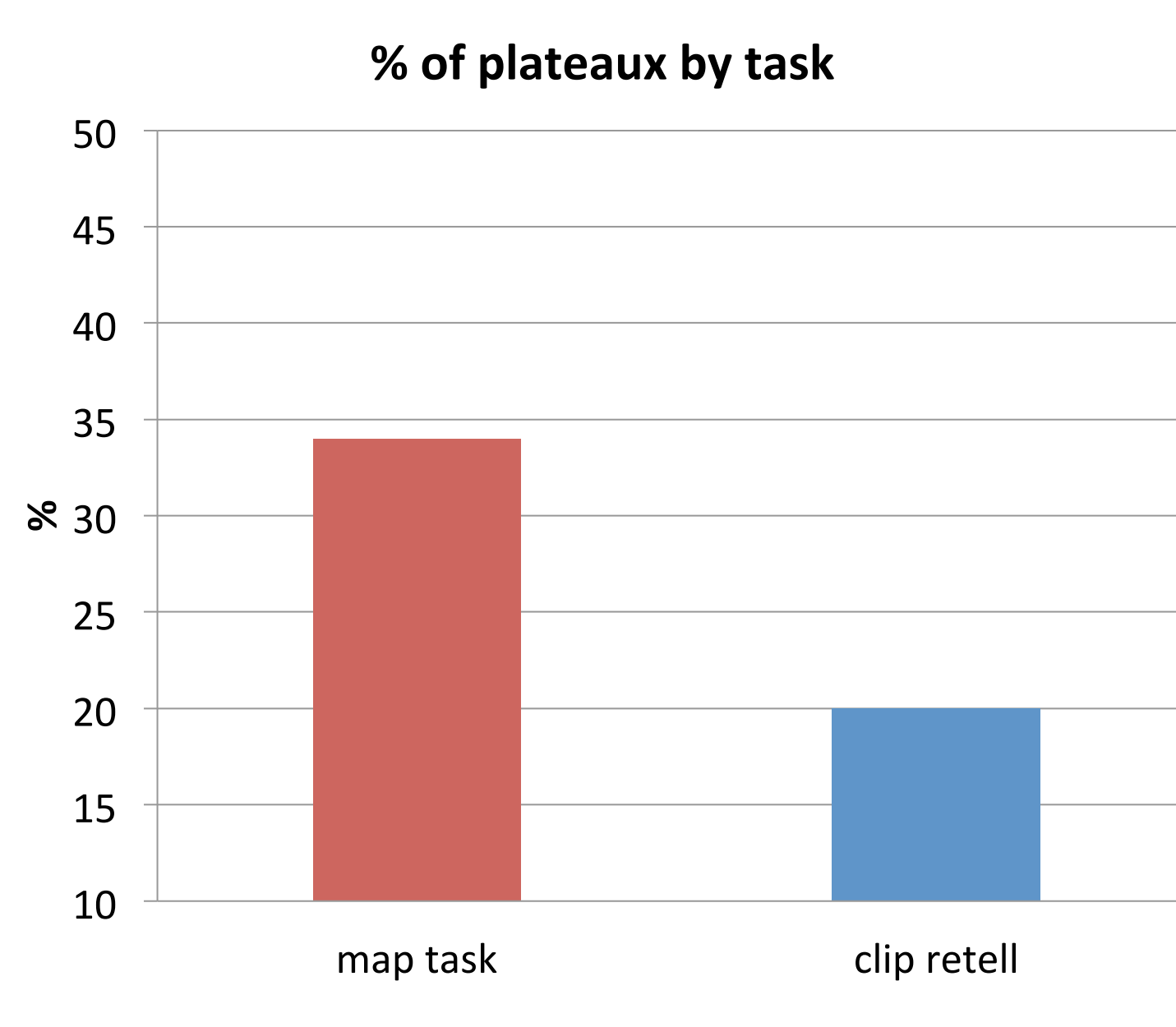
Type of Final Pitch Movement: Rise (HRT)

- Speakers used rises more often in the Map Task than in the Clip Retell task [p<0.001]
- Females used plateaux more often than males [p<0.001]
- **Discourse Function:**
 - (a) questions and confirmation requests were signaled by rises 100% of the time
 - (b) rises were used to hold the floor more often than for simple statements [p<0.001]



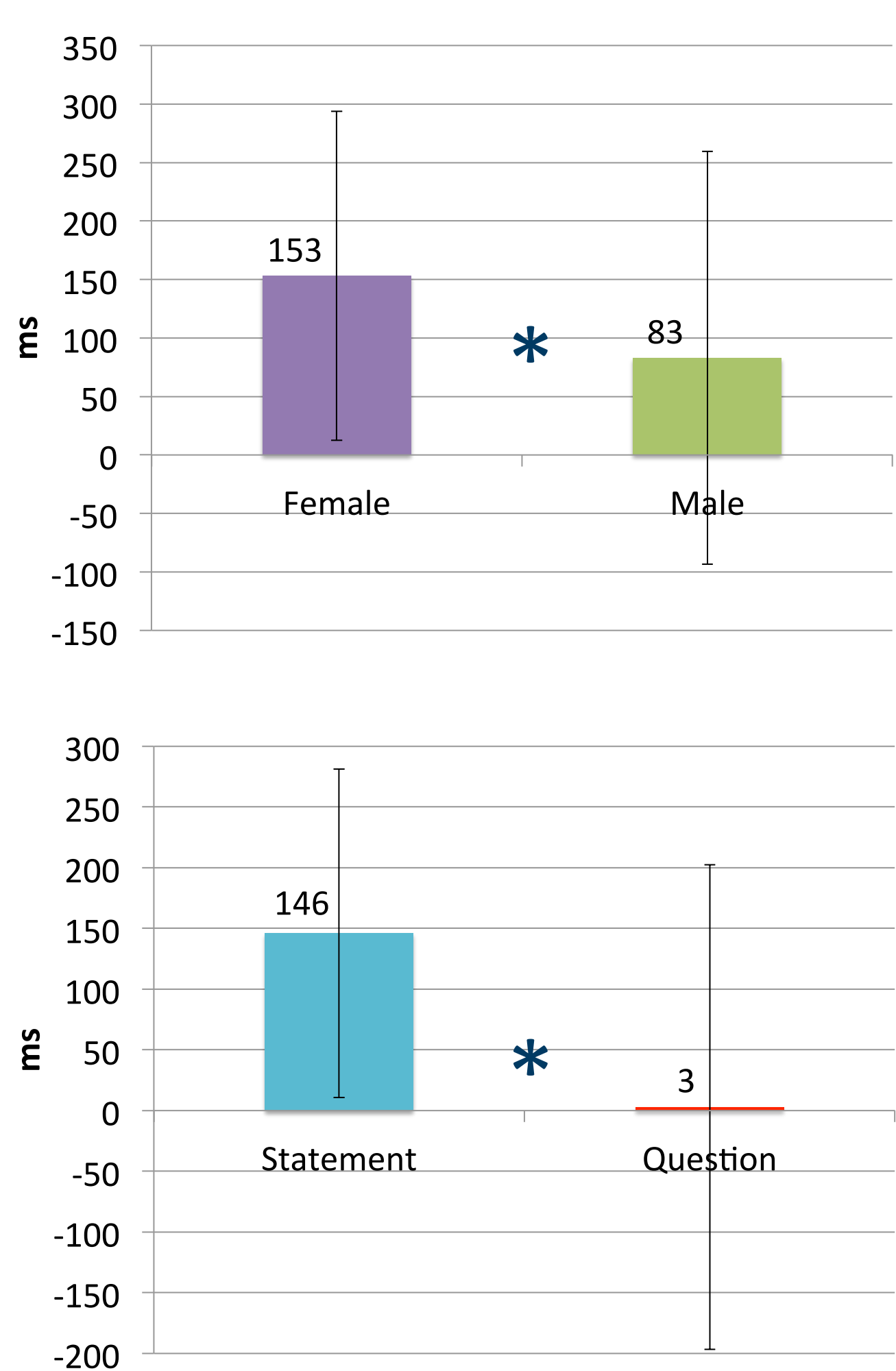
Type of Final Pitch Movement: Plateau

- Speakers used plateaux more often in the Clip Retell task than in the Map Task [p<0.001]
- Males used plateaux more often than females [p<0.001]
- **Discourse Function:**
 - (a) plateaux were only ever used to hold the floor [p<0.001]
 - (b) holding the floor was signaled by a plateau 55% of the time



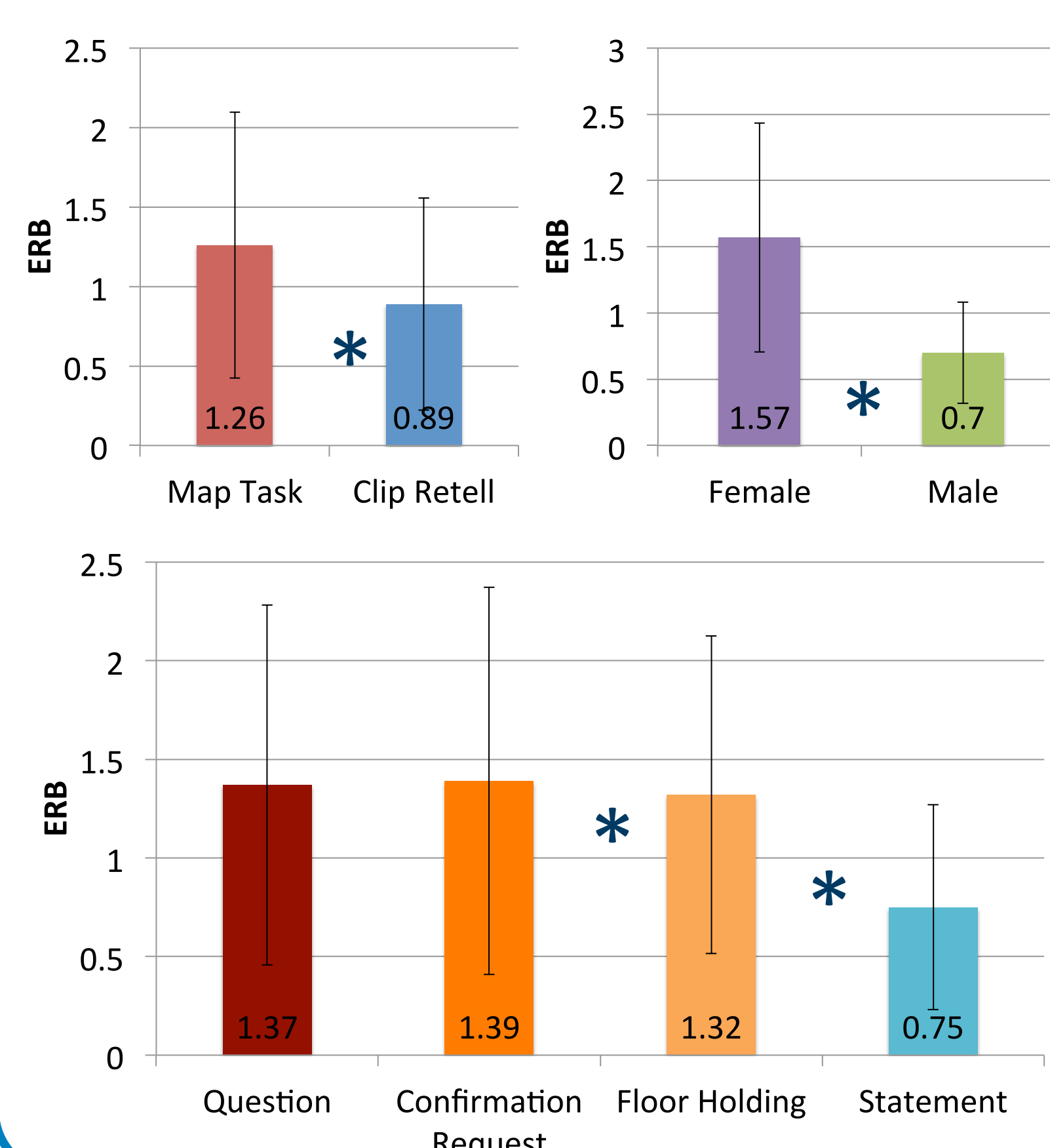
Alignment of the Rise (HRT)

- Females had later alignment than males [p<0.001]
- **Discourse Function:** Statement HRTs had later alignment than Question HRTs [p<0.001]



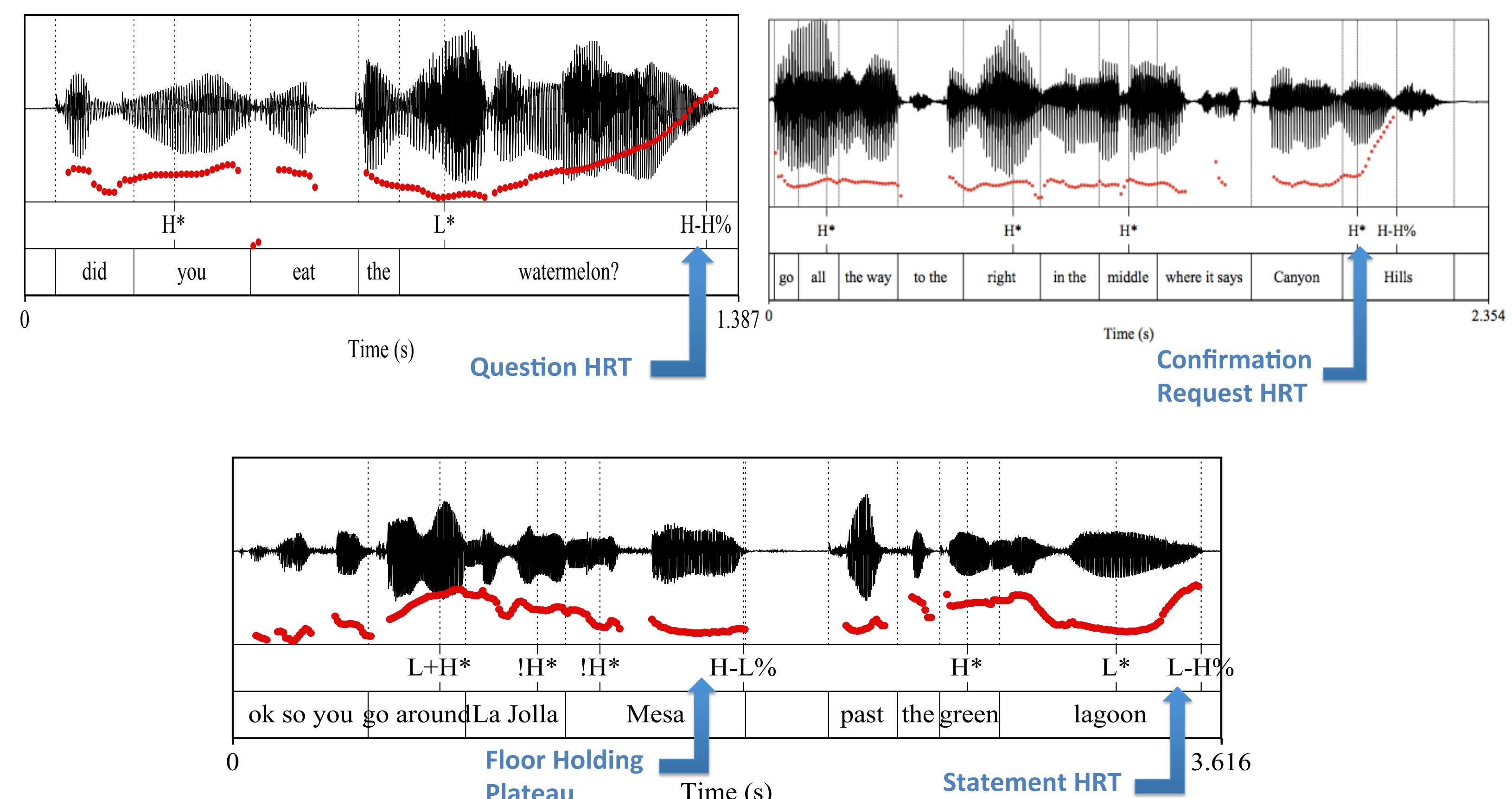
Pitch Excursion of the Rise (HRT)

- Greater excursion in the Map Task than in the Clip Retell task [p<0.001]
- Females used greater excursion than males [p<0.001]
- **Discourse Function:** Question & Confirmation Request HRTs > Floor Holding HRTs > Statement HRTs [p<0.001]



Phonological Analysis of Discourse Function

- In the present data, HRTs were used for four discourse functions: (1) simple statements, (2) floor holding, (3) confirmation requests, (4) questions
- Question HRT: L* H-H%
- Confirmation request HRT: variable realization
- Floor holding HRT: H-L% for plateau; variable for HRT
- Statement HRT: L* L-H%



DISCUSSION AND CONCLUSIONS

- Gendered usage of HRTs in So Cal English: Females use HRTs more often than males, and have later alignment and greater pitch excursion than males. These findings are similar to those for New Zealand English (Daly & Warren 2001).
- Other sociolinguistic variables (region, SES status) do not seem to play a role in HRT usage or realization.
- Different discourse functions are signaled by different melodies that can all together be described as HRTs: statement HRTs are L* L-H% and question HRTs L* H-H% (cf. Australian English where the difference is only in the pitch accent: L* H-H% vs. H* H-H%, respectively).

- In So Cal English, there does not appear to be one type of HRT. Phonologically different types of HRT result in a change of discourse function (statements vs. questions).
- While the results with respect to gender are similar to those from Australian and New Zealand English varieties, SoCal English has more consistent phonological differences relating to pragmatic function.
- Other types of discourse function (e.g., holding the floor, confirmation request) merit further investigation.

ACKNOWLEDGEMENTS

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Daly, N. & Warren, P. (2001). Pitching it differently in New Zealand English: Speaker sex and intonation patterns. *Journal of Sociolinguistics* 5(1), 85-96.
 Fletcher, J., Grabe, E., & Warren, P. (2005). Intonational variation in four dialects of English: The High Rising Tune. In *Prosodic typology: The phonology of intonation and phrasing*, 390-409. Oxford University Press.