

Creakin' Up with the Kardashians:

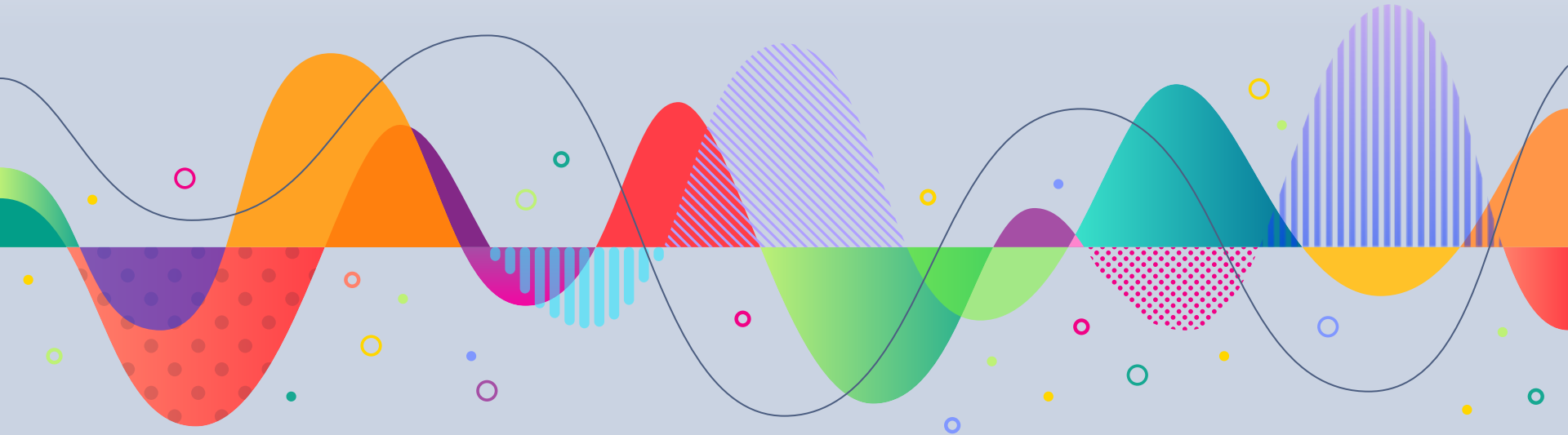
A study of creaky voice in gendered interactions

Team Wolfram

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1.

Topic and overview



Topic



- ▶ We want to see whether use of creaky voice varies when people of different genders interact with each other
- ▶ Kim Kardashian's creaky voice is 'notorious' (Time Magazine)
- ▶ Kardashian has many public interactions with 'Food God'

Jonathan Cheban to analyze

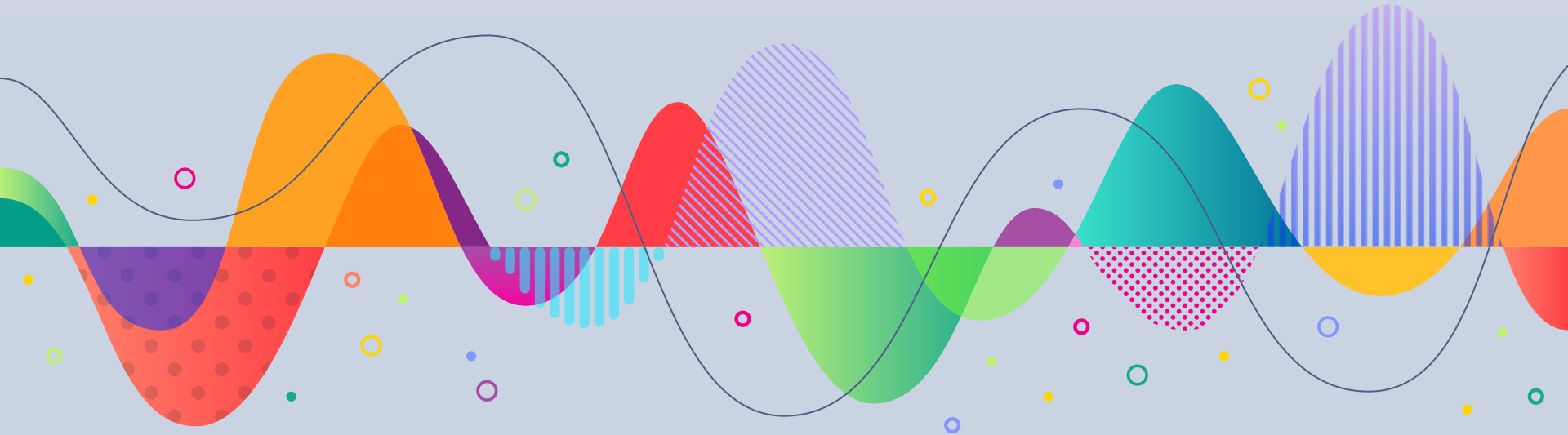
What is creaky voice?



- ▶ Creaky voice
 - ▶ Also referred to as... glottal fry ; vocal fry
- ▶ Characteristics of creaky voice:
 - ▶ Diminished energy
 - ▶ Low F_0
 - ▶ “Within words, it is most likely to occur at syllable boundaries”
- ▶ Creaky voice as a sociolinguistic marker
 - ▶ Index certain personas/identities

2.

Research Questions



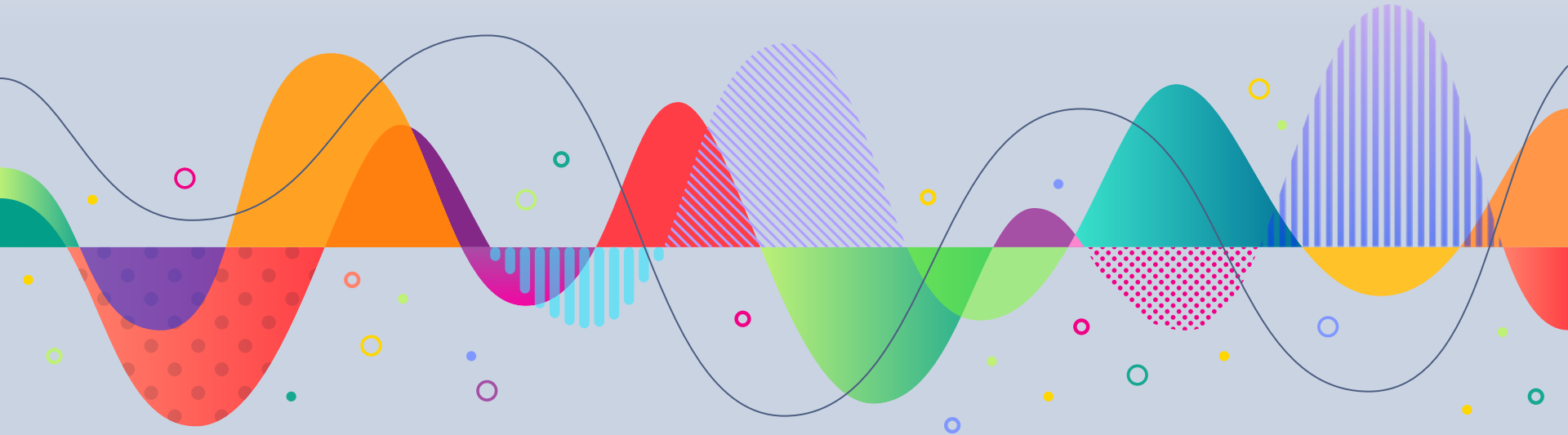
Research Questions



- ▶ How does the production of creaky voice differ between Kim Kardashian and Jonathan Cheban?
- ▶ How does their creaky voice use differ in isolation and interaction?

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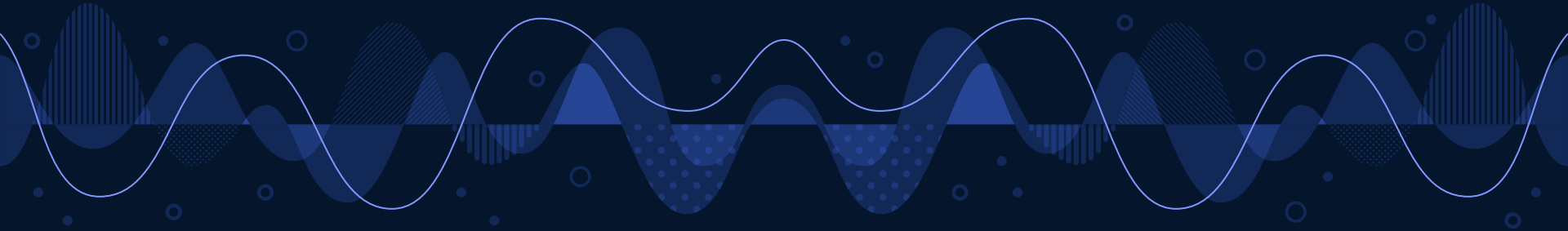
Review of the Research Literature



Creaky Voice: Interactional Effects in Production and Perception (Voorhees, 2021)



- Focus group interviews w/ 7 first-year writing students & 1 PhD student (interviewer)
- How creaky voice functions interactionally



Creak & Gender Identity (Voorhees, 2021)

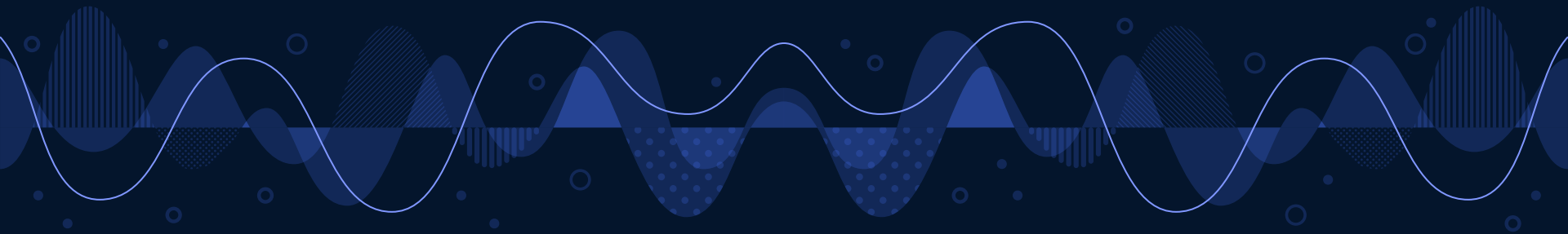


- Male speakers produce a significantly higher percentage of creak than female speakers
 - Males : filler words (“uh” “um”)
 - Females : response words (“yeah” “yes”)

Creak as a Turn-Taking Device (Voorhees, 2021)



- Longer speech segment → more creak
- Potential explanation: creak as a way to end speech segment & give their interlocutor an opportunity to speak



Creaky Voice: A New Feminine Voice Quality for Young Urban-Oriented Upwardly Mobile American Women? (Yuasa, 2010)

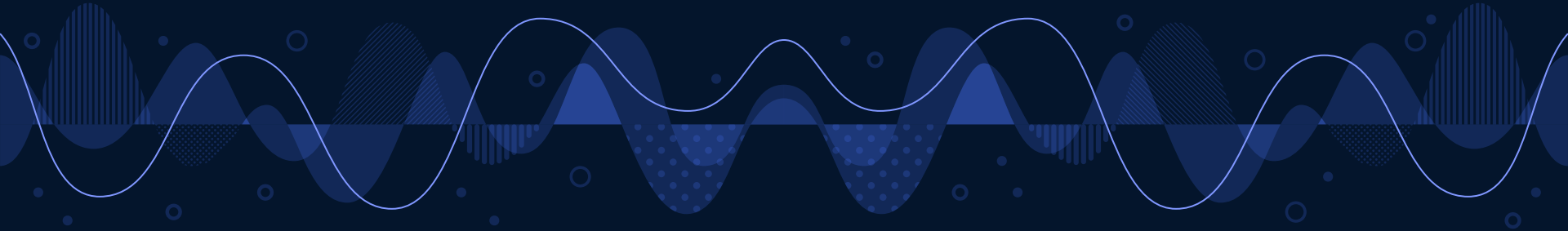


- Shift from creaky voice being associated with men to women
- Thought to be a symbol of authority/imitation of men in power
- 2010 perception study: creaky voice is seen as educated, informal, genuine, nonaggressive

Phonation type as a stylistic variable: The use of falsetto in constructing a persona (Podesva, 2007)



- Use of phonation to index identity
- Case study : Heath ; young, gay professional



Diva Persona (Podesva, 2007)



- 'an operatic prima donna'
- 'By definition, a diva is a rampaging female ego redeemed only in part by a lovely voice'
- 'usually a woman, who is characterized simultaneously by beauty (achieved through talent and/or appearance) and off-putting superiority'

The Role of Lexical Stress on the Use of Vocal Fry in Young Adult Female Speakers (Gibson, 2017)

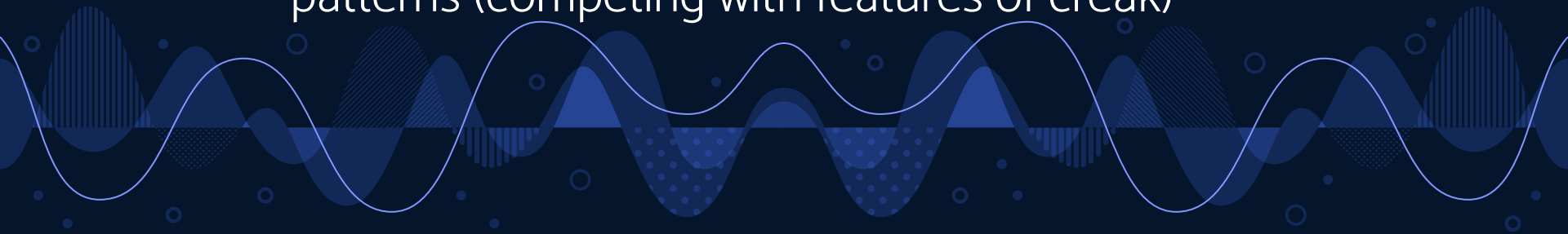


- The role of lexical stress vs. linguistic and sociolinguistic triggers in creak production
- “an exploration of the influence of lexical-level linguistic cues on the use of sociolinguistic cues”

Creak & Lexical Stress (Gibson, 2017)



- Habitual vocal fry occurs more frequently on unstressed syllables
- Possibly due to the fact that stressed syllables have higher amplitudes and F_0 & more regular vibratory patterns (competing with features of creak)



Habitual Use of Vocal Fry in Young Adult
Female Speakers (Wolk 2011)



- Vocal fry used by more than $\frac{2}{3}$ of female college student participants
 - “It is possible that these college students have either practiced or observed this vocal register and modeled it to match popular figures.”
- Rarely used in sustained vowels
- Most often used at the end of sentences
 - “The present findings are also in agreement with psycholinguistic research reporting the tendency to use vocal fry as a linguistic marker of paragraph and sentence boundaries.”

'Participants'



- ▶ Kim Kardashian

- ▶ Female, 41 years old, American socialite and media personality, LA native

- ▶ Jonathan Cheban

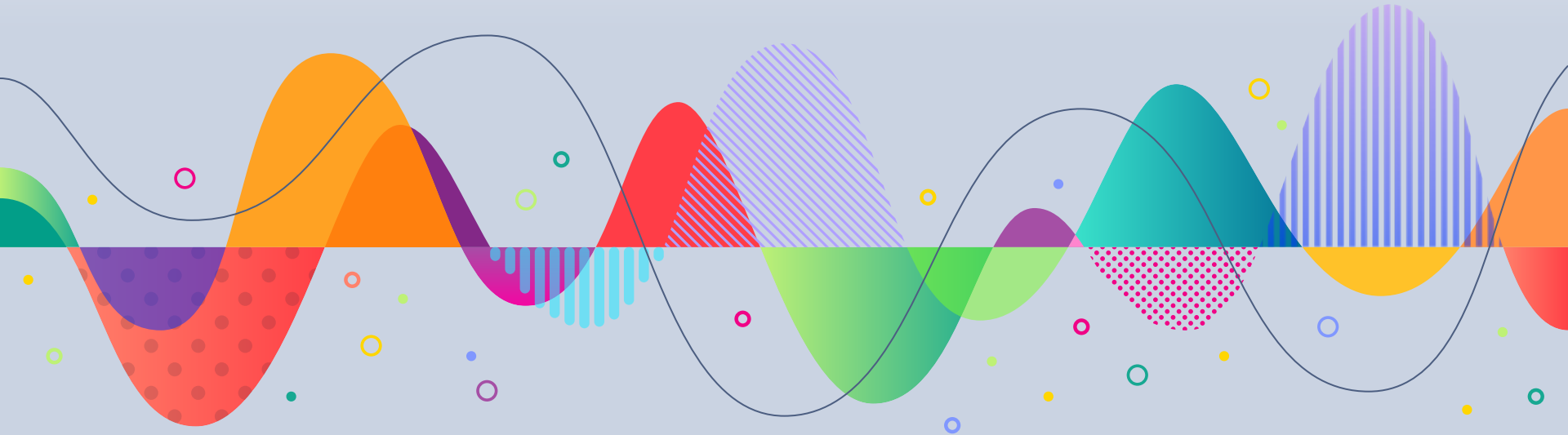
- ▶ Male, 47 years old, American reality TV personality, born

in the Soviet Union and living in LA



4.

Hypothesis and Predictions



Hypothesis: Social Effects



- ▶ Kim Kardashian uses creaky voice to establish high-class female diva persona, Jonathan Cheban uses it in conjunction with her to gain acceptance in her social circle & proximity to her persona.

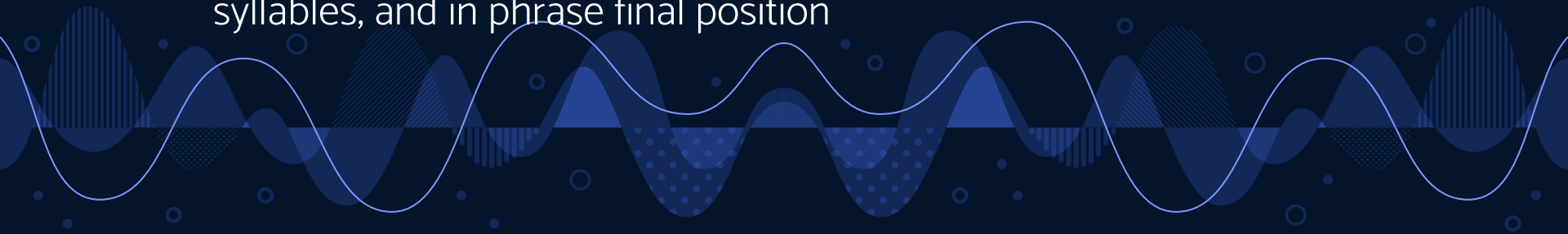
Hypothesis: Variation



We expect Kim to use more creaky voice than Jonathan when they are alone

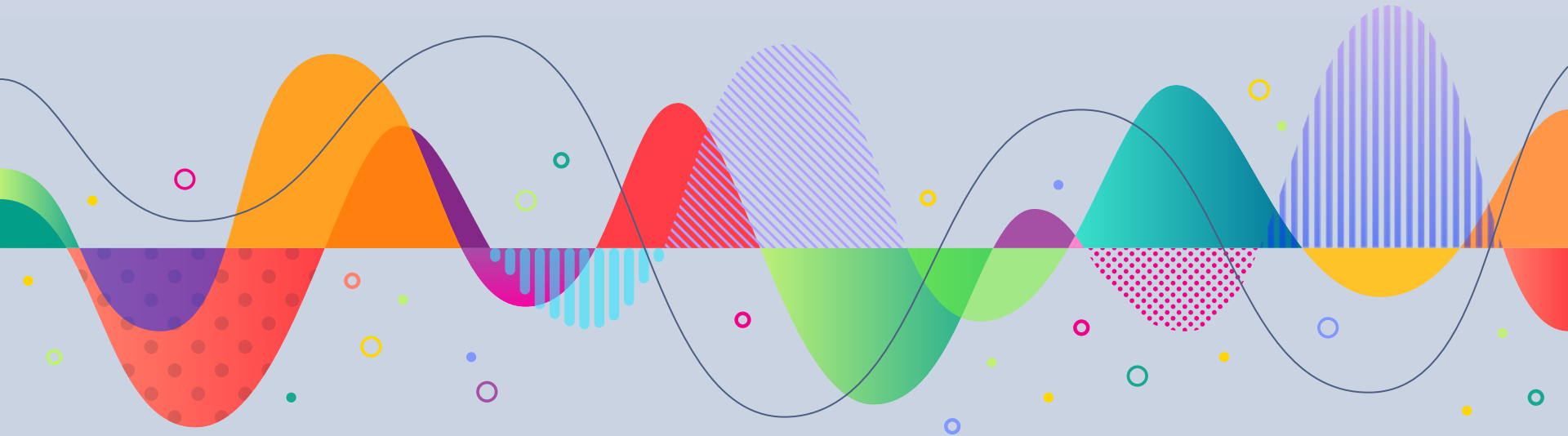
We expect Jonathan's creaky voice use to increase when they are together

We expect creak to appear more in longer segments, unstressed syllables, and in phrase final position



5.

Data and Methodology



Data Sources

- ▷ 7 audio clips with Kim Kardashian and Jonathan Cheban



- ▶ 2 videos of conversations together



- ▶ 3 recordings from Kardashian to online audience



- ▶ 2 recordings from Cheban to online audience

All performances in informal styles

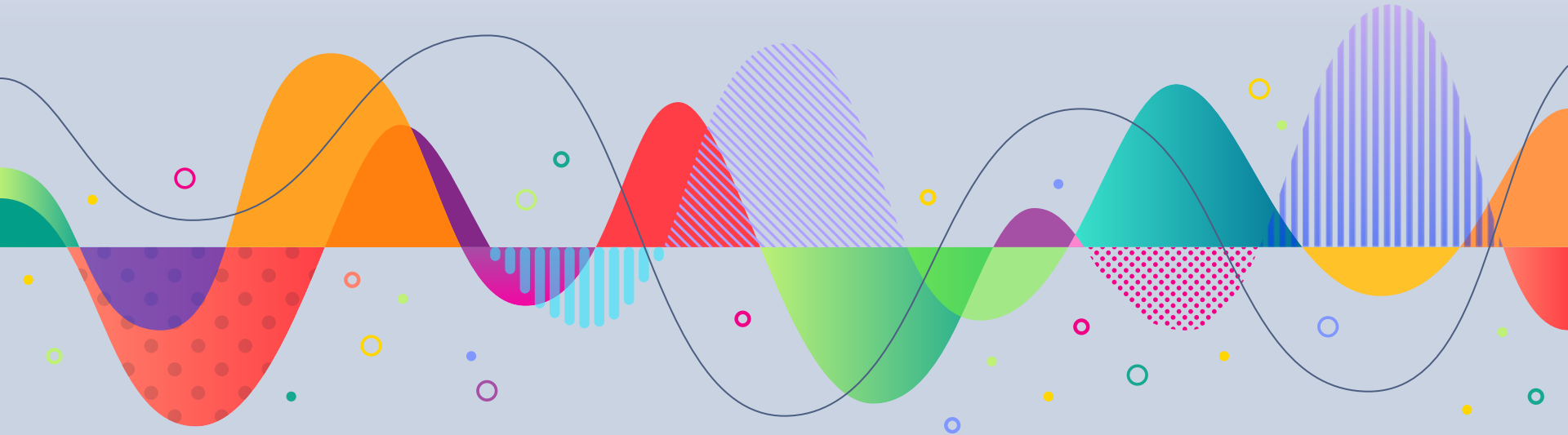
Methodology



- ▷ Variables:
 - ▶ Speaker
 - ▶ Alone vs. together
 - ▶ Absence/presence of creak in a vowel per word
 - ▶ Stressed/unstressed syllable
 - ▶ Vowel length
 - ▶ Phrase-final

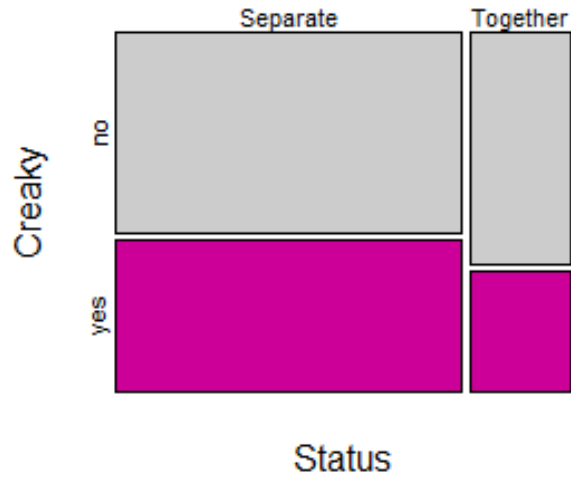
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Findings

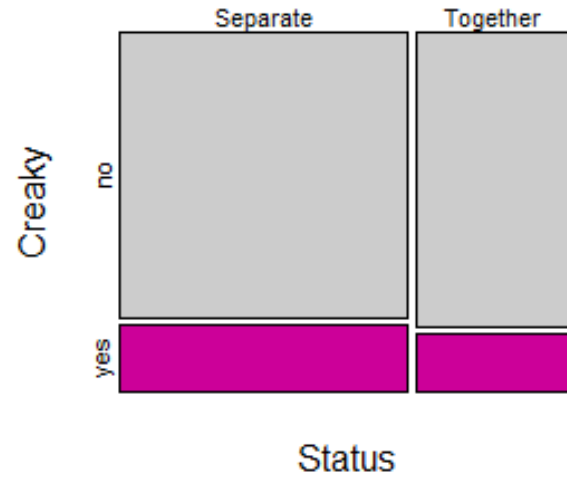


Token Summary

Kim's Tokens



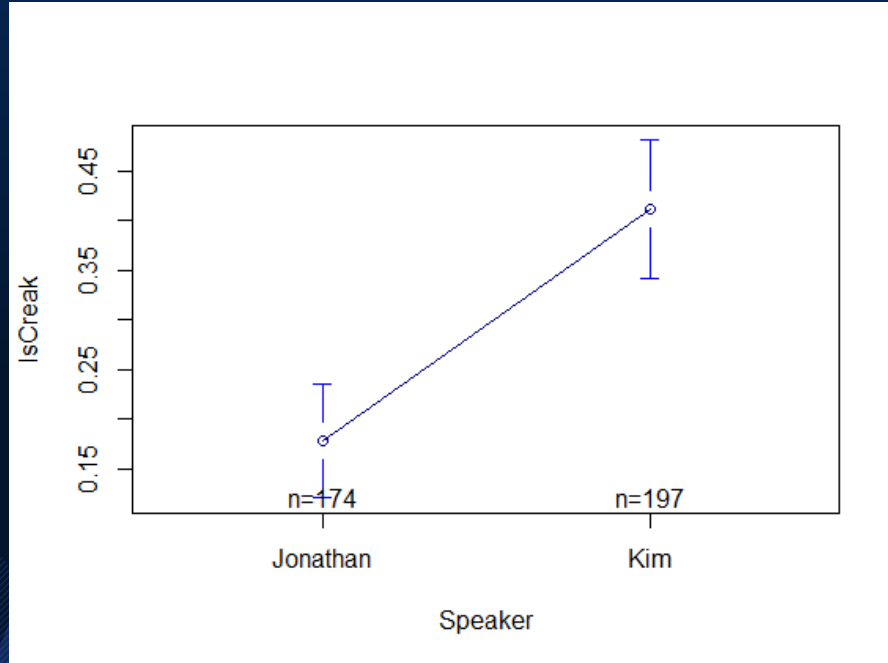
Jonathan's Tokens



Creaky tokens by Speaker

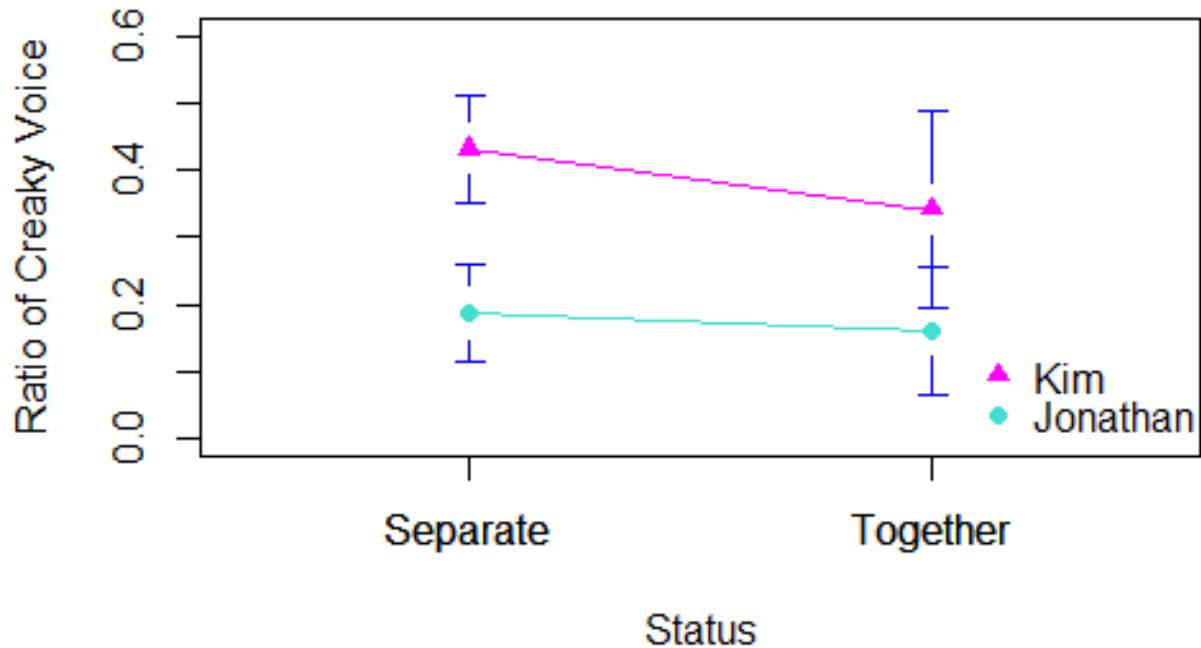


Kim vs. Jonathan:
*** $p < .0001$



Do they change in different contexts?

Creaky Voice by Speaker and Status



Together vs.

Separate:

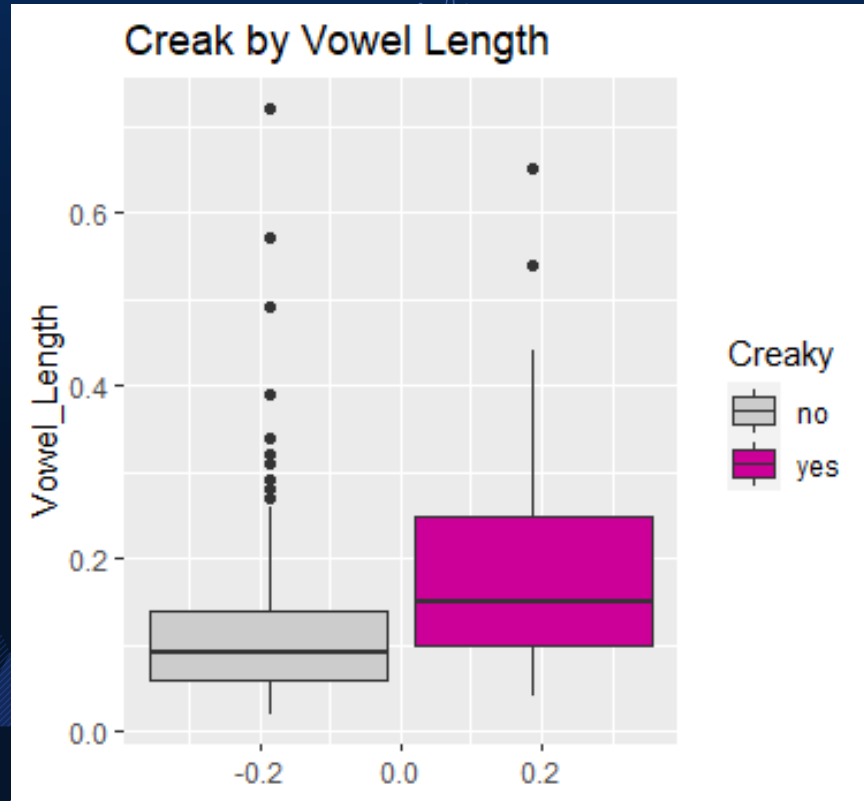
$p > .1$

Not significant

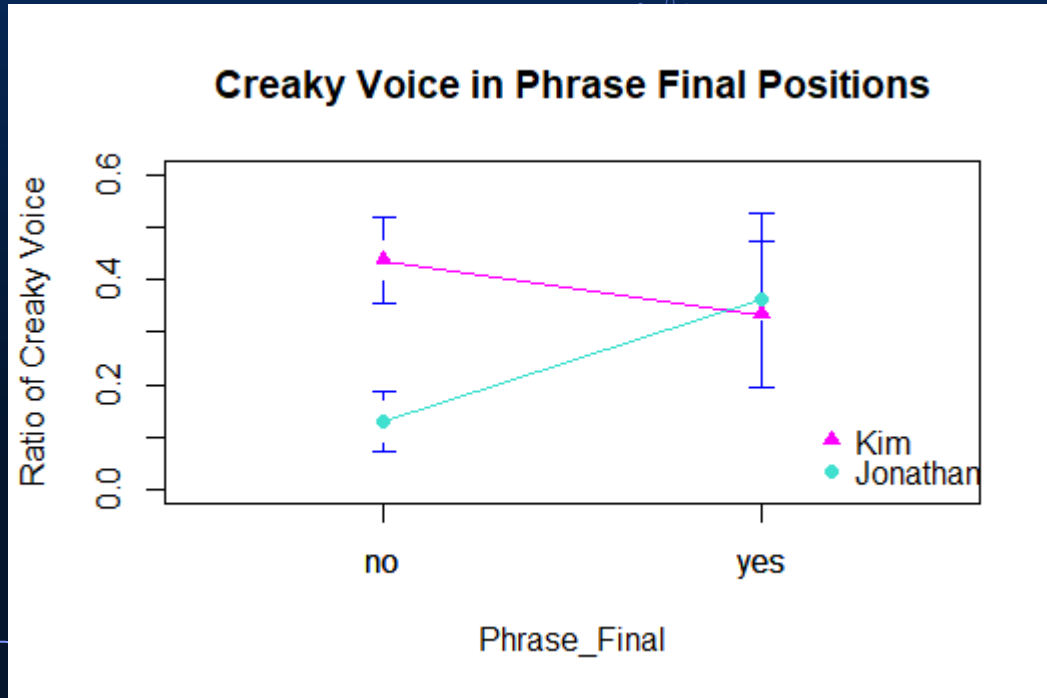
for either

speaker

How does vowel length affect creaky voice?



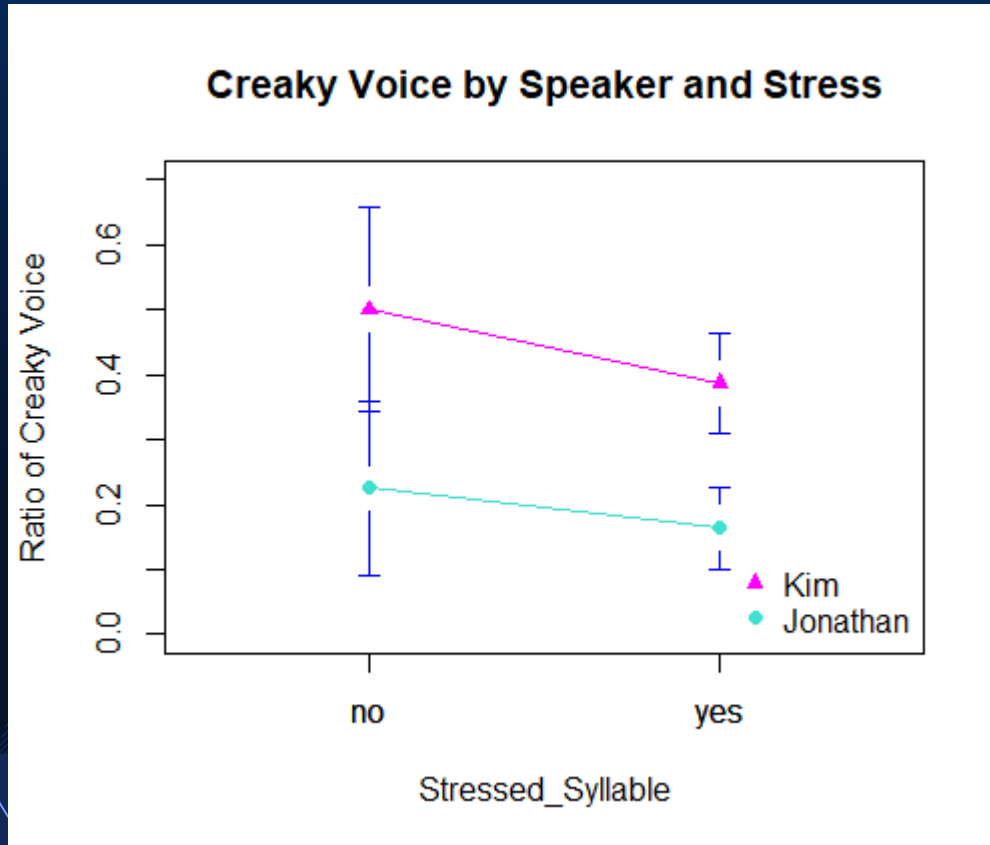
How is creaky voice used in phrase-final positions?



Speaker interaction:

** $p=0.00955$

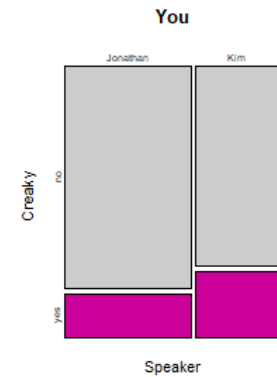
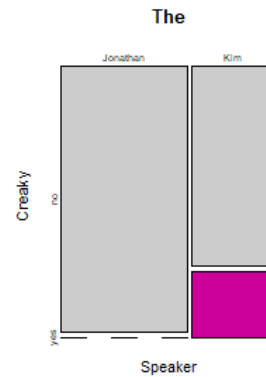
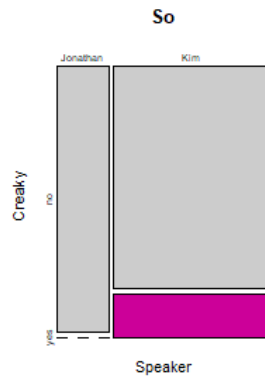
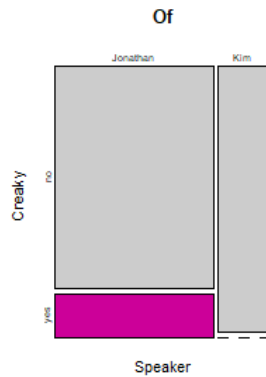
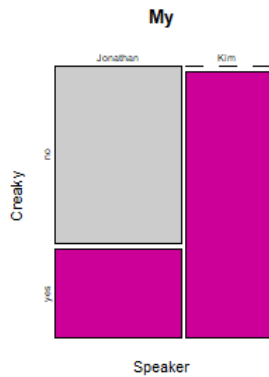
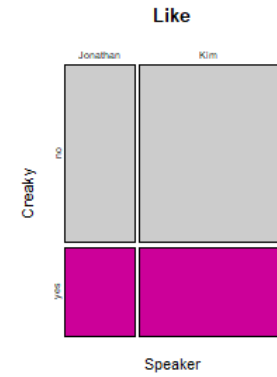
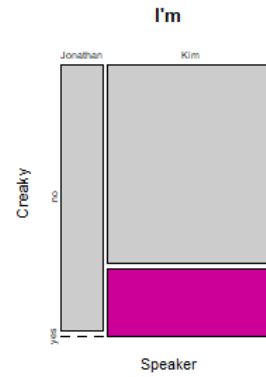
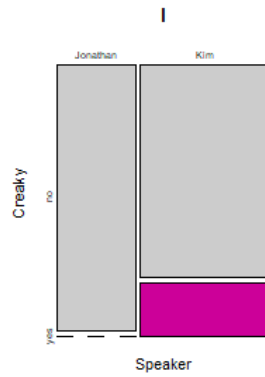
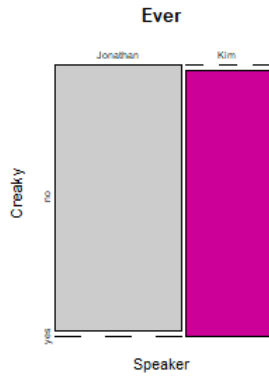
How does stress affect creaky voice use?



Stress effect:

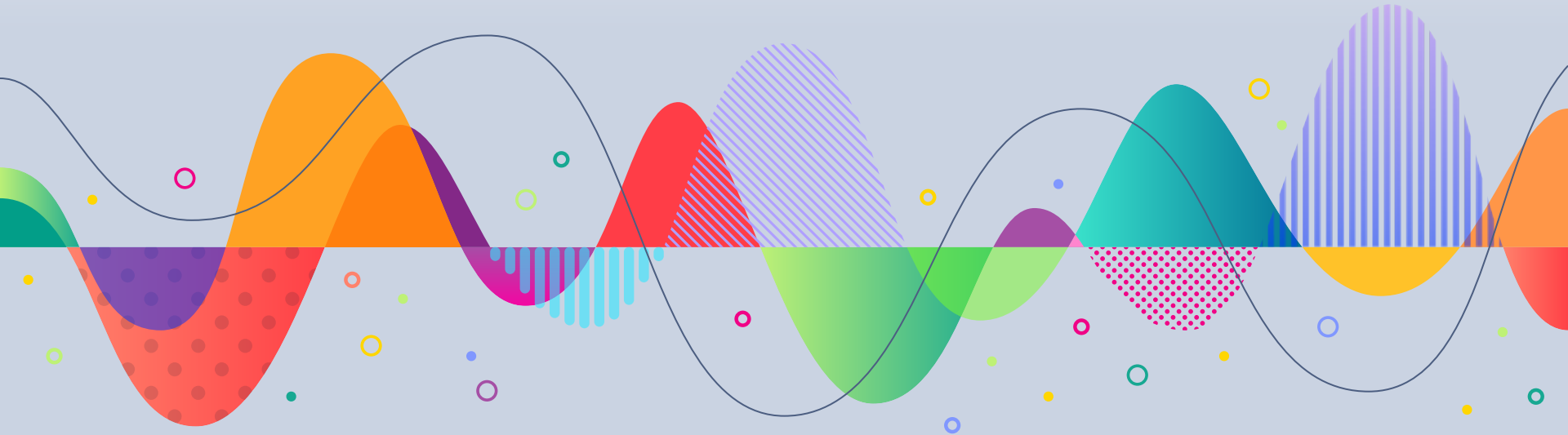
* $p=0.04814$

Interact Variation: Top 10 Words



7.

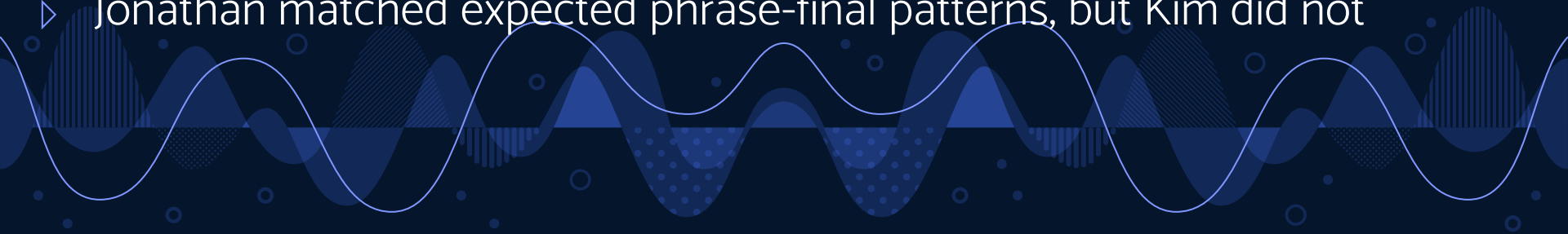
Conclusions and Implications



Was our hypothesis correct?



- ▶ As expected, Kim used more creaky voice than Jonathan in all environments
- ▶ Contrary to our hypothesis, Jonathan's creaky voice did not increase when they were together
- ▶ As expected creak appeared more in longer vowels
- ▶ Jonathan matched expected phrase-final patterns, but Kim did not



Results interpretation



- ▶ Creaky voice related to expressiveness (Podesva)
- ▶ Associated with cosmopolitan femininity (Yuasa)
- ▶ Lack of correlation between separate/together environments shows the prevailing broader feminine social meaning overrides any situational likening of John to Kim.

Results Interpretation



- ▶ Kim's diva persona manifests as an interactional role (Bucholtz & Hall via Podesva), not as community standard?
 - ▶ John has no reason to position himself in any way in reference to this role through his usage of creak

Limitations



- ▶ Audio quality
- ▶ Inherent performativity of celebrity
- ▶ Narrow case study
- ▶ Impressionistic coding

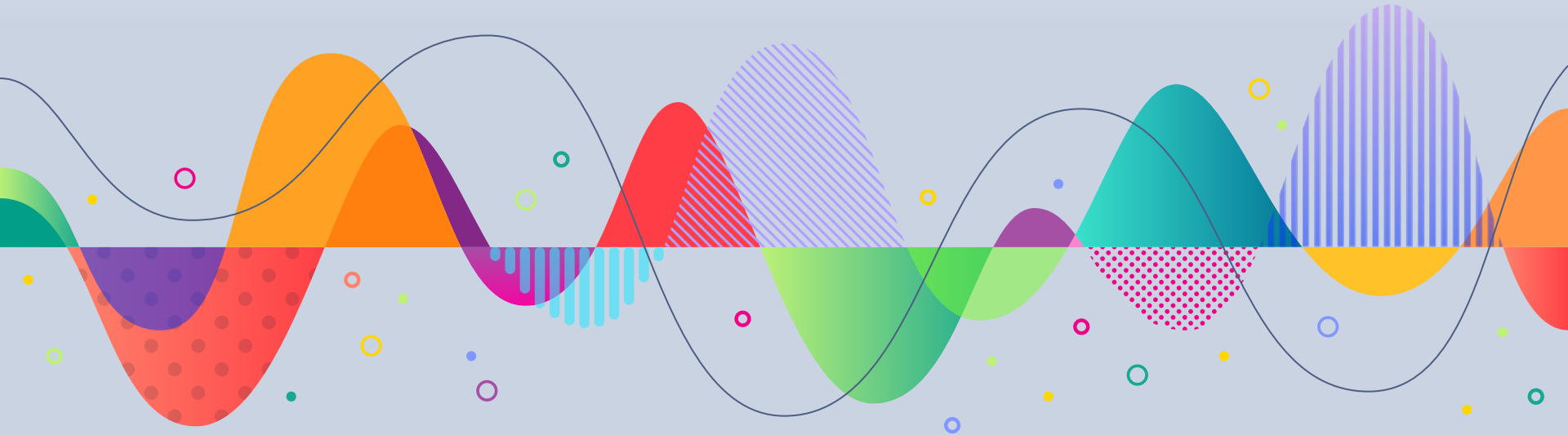
Further Research



- ▷ Social meaning of creak (in broader environments)
 - Is it used more in formal or informal settings?
 - Does use of creak change when gender and/or sex are the same between two people?
 - Study with more speakers who are not performing

8.

References



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- ▶ Gibson, T. A. (2017). The Role of Lexical Stress on the Use of Vocal Fry in Young Adult Female Speakers. *Journal of Voice*, 31(1), 62–66. <https://doi.org/10.1016/j.jvoice.2016.02.005>
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Thank you for listening!!!

