



LOL Lab

Language Of
Learning Lab

Est. 2018

Conversational Cohesion Across Contexts

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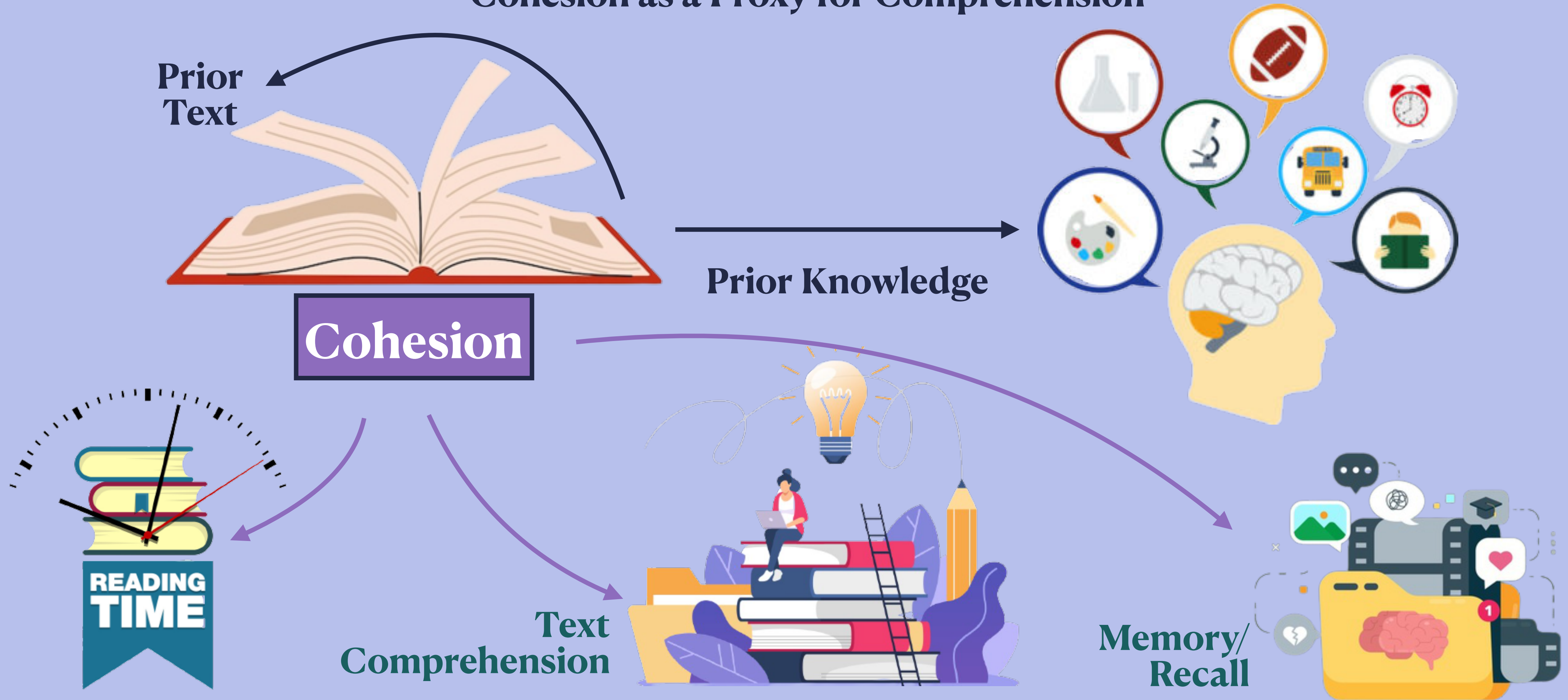


The Society for
Text & Discourse

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Background

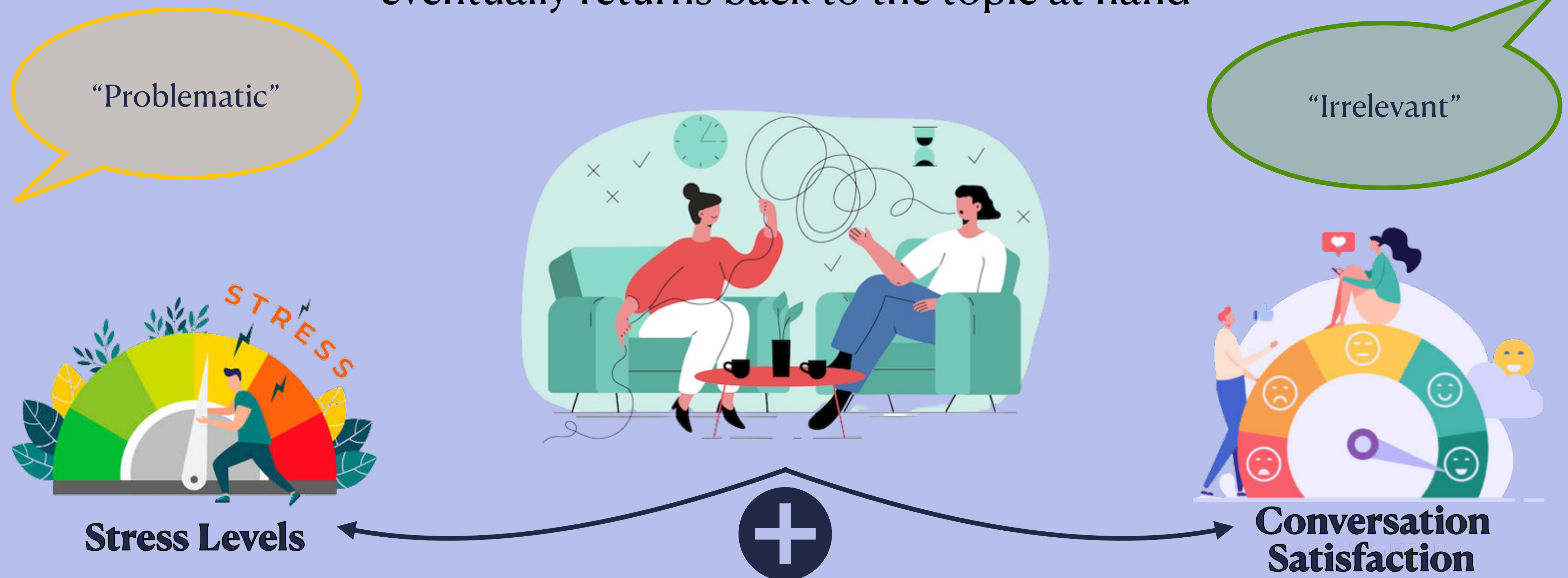
Cohesion as a Proxy for Comprehension



Background

Cohesion as a Proxy for SPOKEN Comprehension

Tendency to “go off on tangents” while talking— engaging in off-topic discourse that eventually returns back to the topic at hand



Current Study

Examines spoken cohesion in videoconferencing context

Describe
Condition

Evaluate
Condition



1. Do varying cohesive features at 2 different grain sizes correlate with overall perceptions of communication success?
Does it vary by condition?

2. Do varying cohesive features at 2 different grain sizes differ by condition?
Does cohesion interact with condition to predict communication success?

Methods

Participants

- 108 participants (54 dyads)
- recruitment through a large Northeastern university SONA pool
- acquaintance check used to filter out dyads who both reported knowing each other

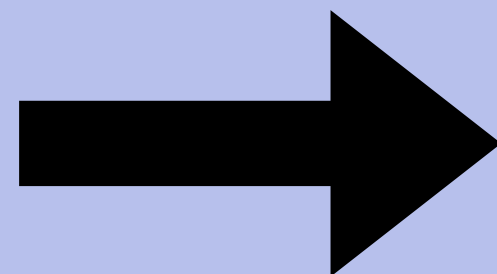
Procedure

qualtrics^{XM}



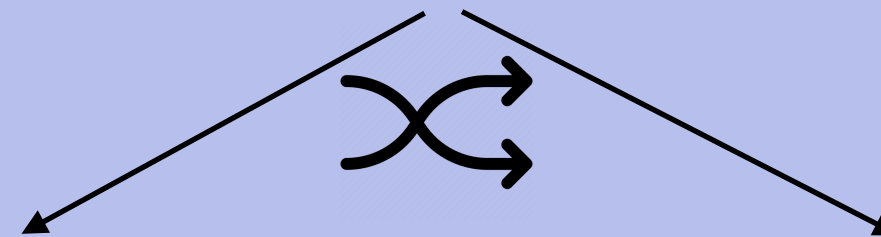
qualtrics^{XM}

Consent



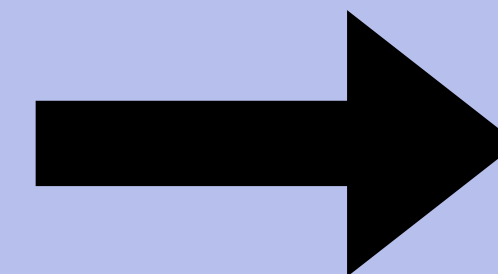
DESCRIBE

10 min. conversation:
*Objective to acquire information
to describe partner later*



EVALUATE

10 min. conversation:
*Objective to evaluate whether or
not you'd be friends with partner*



Demographics
Acquaintance
Check
CSRS

Materials

Communicative Outcome Measures

- conversational skills —> Conversational Skills Rating Scale (CSRS)
 - analogous *Rating of Partner* and *Rating of Self* forms (framing of items differ: partner-directed vs. self-directed, respectively); additional self-bias score
 - 30 statements per form rated on a 5-pt Likert scale
 - 4 skill clusters: attentiveness (nodding in response, providing encouragement/agreement), composure (speaking fluency, vocal confidence), expressiveness (use of humor/narratives, amount of smiling/laughing), and coordination (initiation of new topics and maintaining them)

Conversational Skills Rating Scale

1 Inadequate	2 Fair	3 Adequate	4 Good	5 Excellent
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Awkward, disruptive,
or results in a
negative impression
of communicative
skills



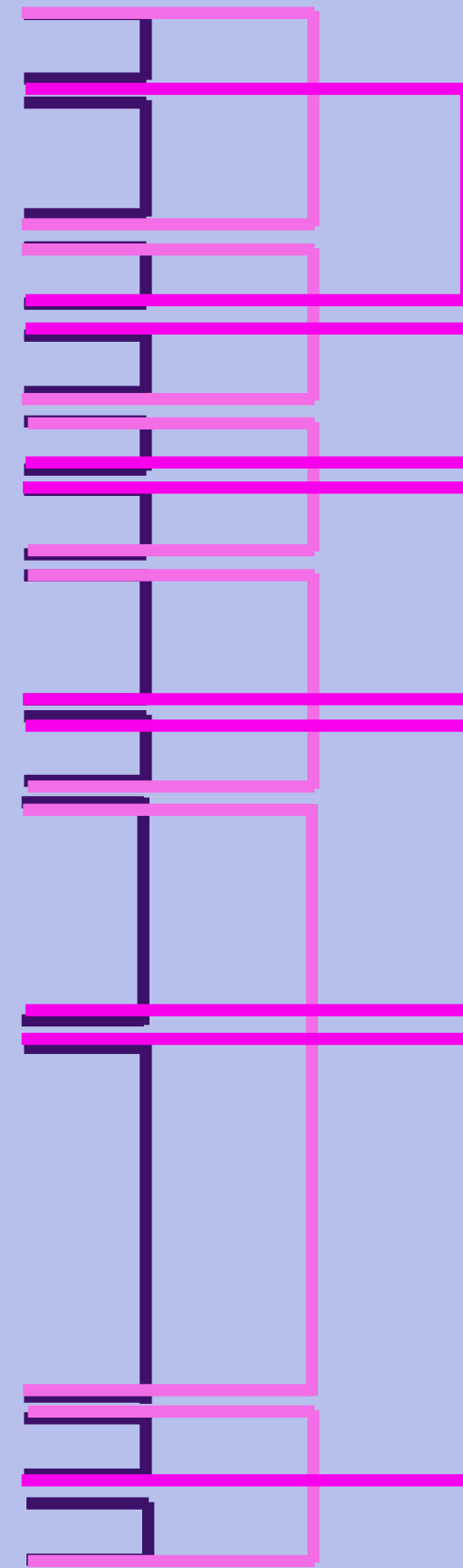
Smooth, controlled,
results in positive
impression of
communicative skills

NLP Analyses

Transcript Processing

Joint Transcripts (Person A & B)

A. Are you allergic to bees?
B. No, I just have a really big phobia bees and spiders.
A. I'm really afraid of Nicholas cage.
B. Really?
A. Yep.
B. I love that. Nicholas Cage.
A. Yeah, he's really scary. Do you have a significant other?
B. I do not.
A. Okay. Have you had fruit flies in your room since the beginning of the semester? Because I have.
B. Maybe I've seen one or two bugs. There was a spider the other day that jumped at me from the wall, which, yeah. I expected my RA to come in because I screamed really loud.
A. Right.
B. Yeah.



- Content Word Overlap

- Across 1 Paragraph (Within-Subject)

- Across 2 paragraphs (Between-Subject)

- Semantic Similarity (Word2Vec)

- Across 1 Paragraph (Within-Subject)

- Across 2 paragraphs (Between-Subject)

Results

Correlations

Do varying cohesive features at 2 different grain sizes correlate with overall perceptions of communication success?

Does **semantic similarity** correlate with perceptions of success?

No significant relationships found

Cohesion Feature	Grain Size	Total <i>r</i>		
		Self-Rated CSRS	Partner-Rated CSRS	CSRS Self-Bias
Content Word Overlap	Within-Subjects			
	Between-Subjects			
Semantic Similarity (Word2Vec)	Within-Subjects			
	Between-Subjects			

Correlations

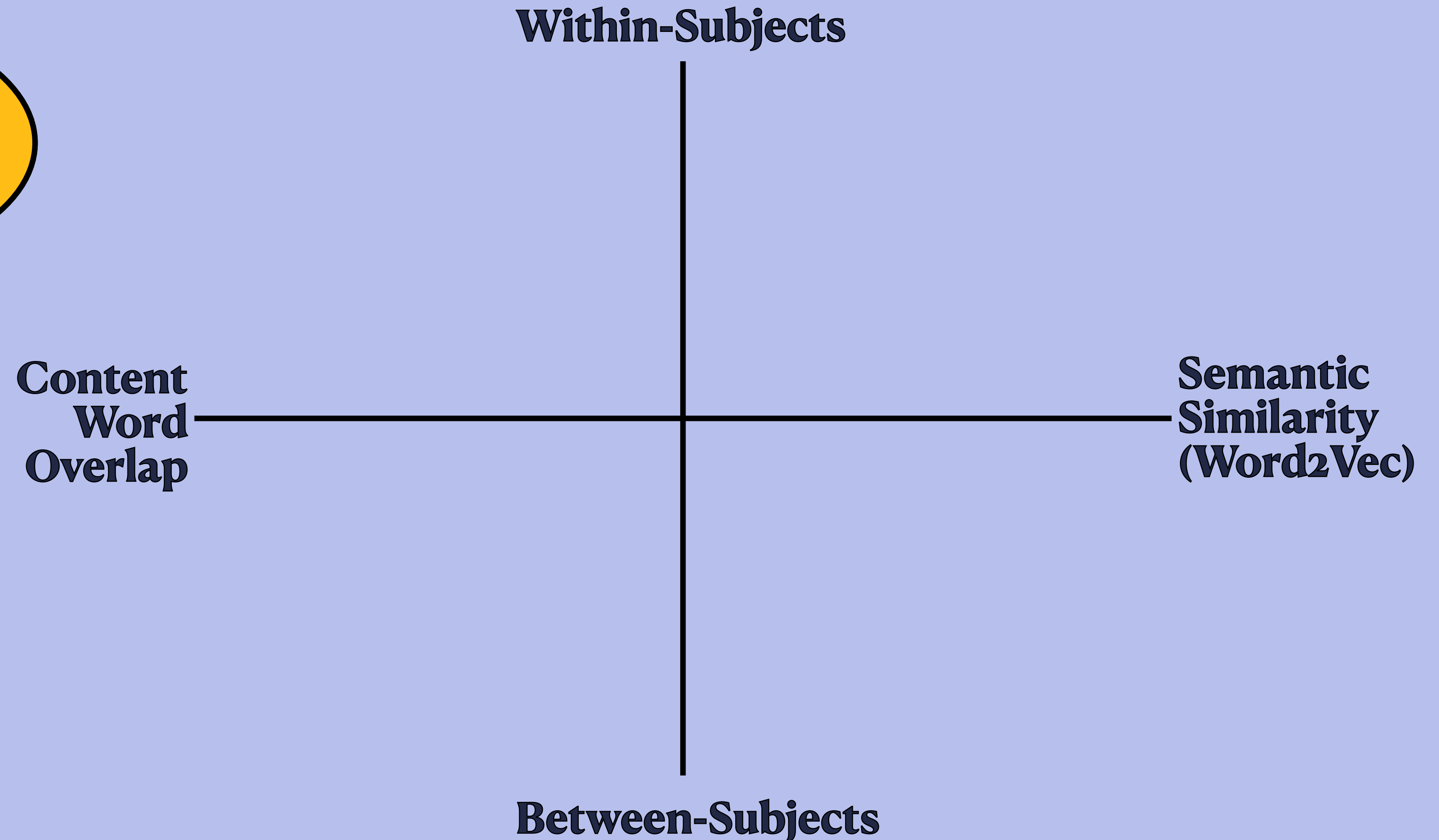
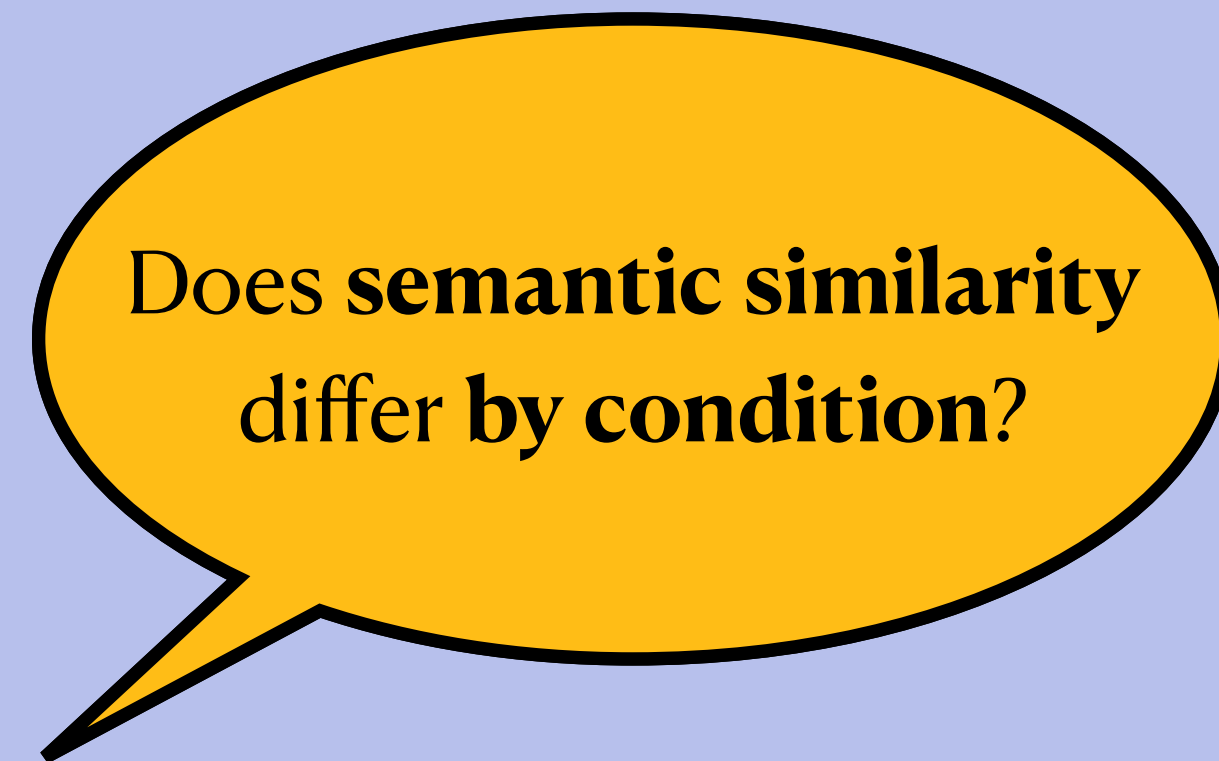
Do varying cohesive features at 2 different grain sizes correlate with perceptions of communication success, as a function of condition?

Does semantic similarity correlate with perceptions of success by condition?

Cohesion Feature	Grain Size	Describe r			Evaluate r		
		Self-Rated CSRS	Partner-Rated CSRS	CSRS Self-Bias	Self-Rated CSRS	Partner-Rated CSRS	CSRS Self-Bias
Content Word Overlap	Within-Subjects						
	Between-Subjects						
Semantic Similarity (Word2Vec)	Within-Subjects						
	Between-Subjects						

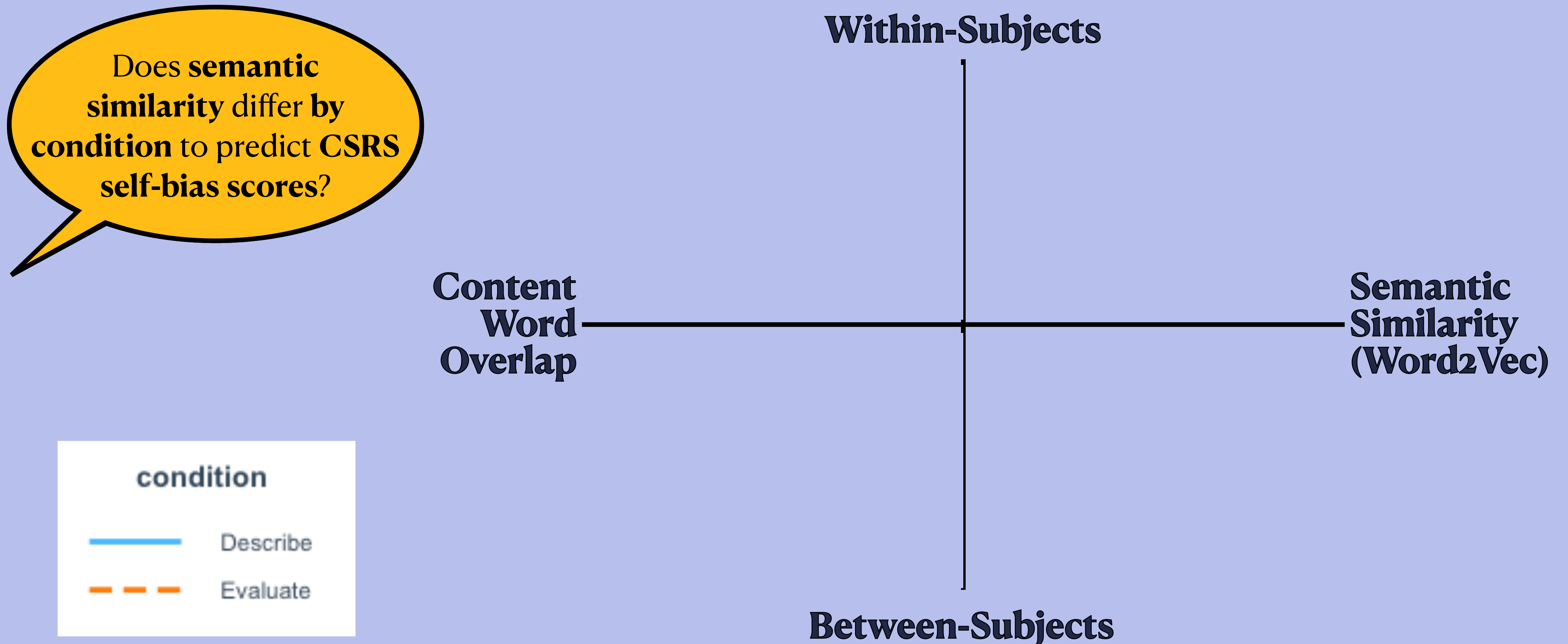
One-Way ANOVAs

Do varying cohesive features at 2 different grain sizes differ by condition?



Condition Interactions

Do varying cohesive features at 2 different grain sizes interact with condition to predict communicative success (specifically, the highly correlated self-bias scores)?



Discussion

Study Significance

- cohesive strategies used to maintain conversation coherence may vary by condition (tasked to *describe* vs. *evaluate* their partner)
- different cohesive indices relate to communicative success & moderated by condition
- now better understand:
 - the constraints that influence conversational cohesion
 - the contexts that conversations thrive under
 - how communicative outcomes are influenced by cohesion & condition

Future Implications and Applications

- helps determine how conversational contexts can be utilized to promote a clearer sense of speech coherence, resulting in greater perceptions of conversational success
- future extensions can build on results from current study by:
 - comparing cohesion over Zoom to other environmental settings such as face-to-face or over text
 - manipulating other factors such as familiarity between speakers, the expected formality of the interactions, or number of speakers involved in discussion
 - studying other aspects of successful communication like creative idea generations, comprehension, and listener engagement/interest
 - looking at the *dynamics* of conversational cohesion (i.e., examining nonlinear patterns of cohesion within- and between-speakers)

Have Questions?
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