

DISCOURSE EXPECTATIONS IN A NON-NATIVE LANGUAGE

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- Learning to communicate effectively in a non-native language is quite achievable.



- Becoming truly native-like is [exceedingly rare/impossible].

WHY?

- Learning to communicate effectively in a non-native language is quite achievable.



- Becoming truly native-like is [exceedingly rare/impossible].

HOW do L1 and L2 speakers differ?

“What (...) emerges is that it is not necessarily the case that L2ers’ linguistic representations are ‘defective’; but the need to integrate different kinds of linguistic properties may subject L2ers to **particular processing pressures.**”

(White, 2011)

The RAGE hypothesis

Non-native speakers have reduced ability to generate expectations.

(Grüter, Rohde & Schafer, 2014, submitted)

Event structure and coreference

Emily brought Melissa a drink. She ...

... thought Melissa was thirsty.

She = Emily ('Source-continuation')

... said 'thank you'.

She = Melissa ('Goal-continuation')

Event structure and coreference

Emily brought Melissa a drink. She ...

Emily was bringing Melissa a drink. She ...

Event structure and coreference

(Rohde, Kehler & Elman, 2006; Kehler et al., 2008)

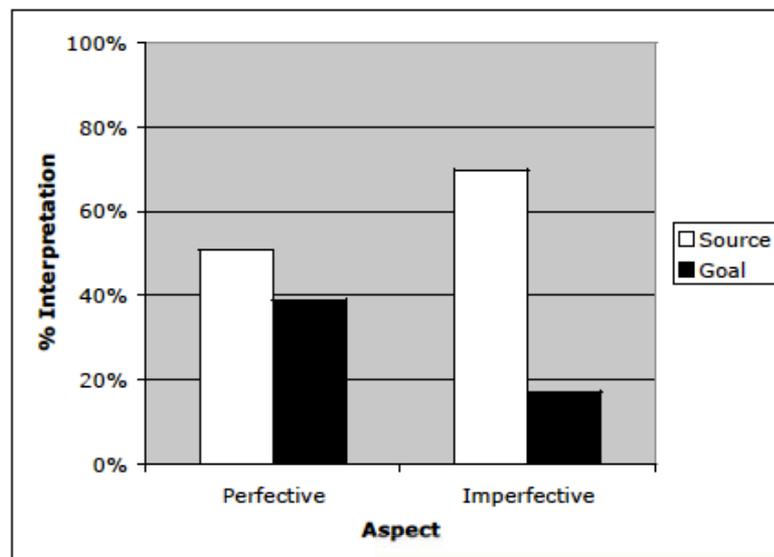


Figure 1: Effects of verbal aspect on pronoun interpretation
(conservative assessment of ambiguity)

effect (partially) replicated in **Japanese**
(Ueno & Kehler, 2010, in press)

effect replicated in **Korean**
(Kim, Grüter & Schafer, 2013, in prep.)

Experiment 1: written story continuation

Grüter, Rohde & Schafer, 2014, submitted

Participants

	Age (in years)	Cloze test¹ (proportion acceptable responses)	Versant English Test² (overall score, range 20-80)	Self-rated English proficiency (out of 10)
L1-English (n=39)	24 (18-66)	0.84 (.60-.98)	--	9.3 (7-10)
L2-English (n=48)	24 (18-51)	0.55 (.24-.80)	51 (34-80)	6.0 (2-9)
L1-Japanese (n=23)	25 (18-51)	0.54 (.36-.68)	49 (40-61)	6.2 (4-9)
L1-Korean (n=25)	23 (20-32)	0.56 (.24-.80)	53 (34-80)	5.8 (2-8)

¹Brown (1980), ²Pearson (2011; <http://www.versanttest.com>)

Do learners understand grammatical aspect in English?

- Task 2 (Truth value judgments)

Do learners use grammatical aspect to create discourse expectations?

- Task 1 (Story continuations)

Do learners understand grammatical aspect in English?

- Task 2 (Truth value judgments)

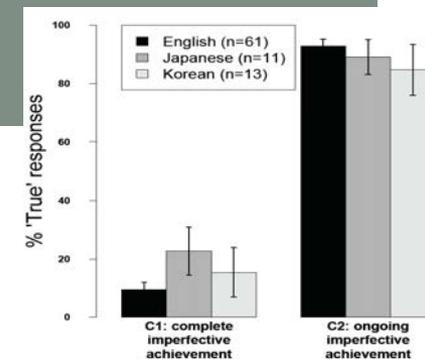
adapted from Gabriele (2005, 2009)

- Do learners know that progressive-marked (transfer-of-possession) verbs denote an incomplete event?

Brenda is feeding the bowl of soup to Anne.

TRUE when the soup is in the process of being consumed.

FALSE when the bowl is empty.



Story continuations

2 (**aspect**) x 2 (**prompt type**) design

COMPLETED EVENT (PERFECTIVE)

Emily **brought** a drink to Melissa. **She** _____

Emily **brought** a drink to Melissa. _____

ONGOING EVENT (IMPERFECTIVE)

Emily **was bringing** a drink to Melissa. **She** _____

Emily **was bringing** a drink to Melissa. _____

Latin square design, 5 items/condition + 20 fillers
(10 verbs: *bring, feed, give, mail, pass, push, roll, serve, take, throw*)

Story continuations

- data annotated for *coreference*

Emily brought/was bringing a drink to Melissa. (She) _____

She thought Melissa was thirsty.

(SOURCE-continuation)

Melissa said "Thank you."

(GOAL-continuation)

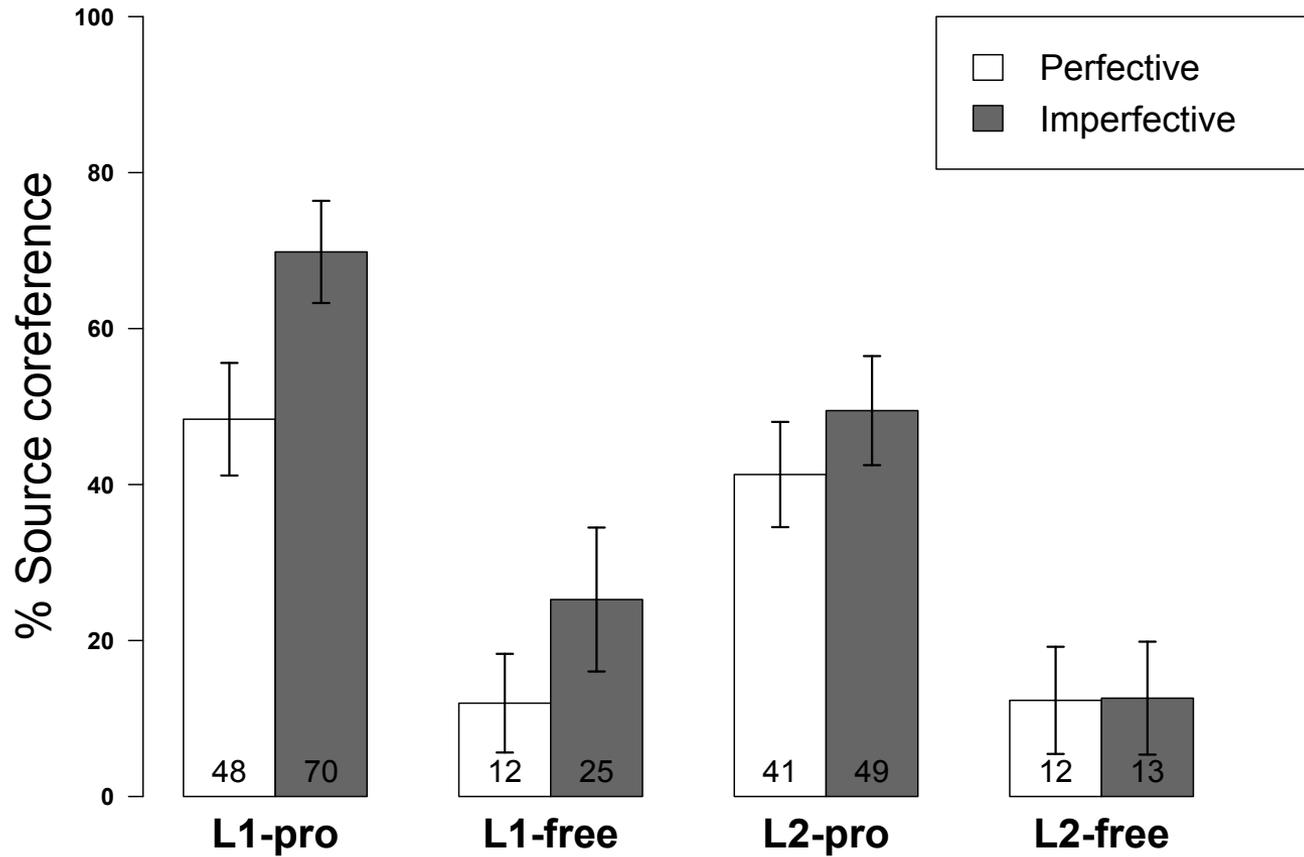
She did not want it.

(ambiguous: 4/4% of L1/L2 data)

It was Coke.

(other: 12/13% of L1/L2 data)

Results: Coreference



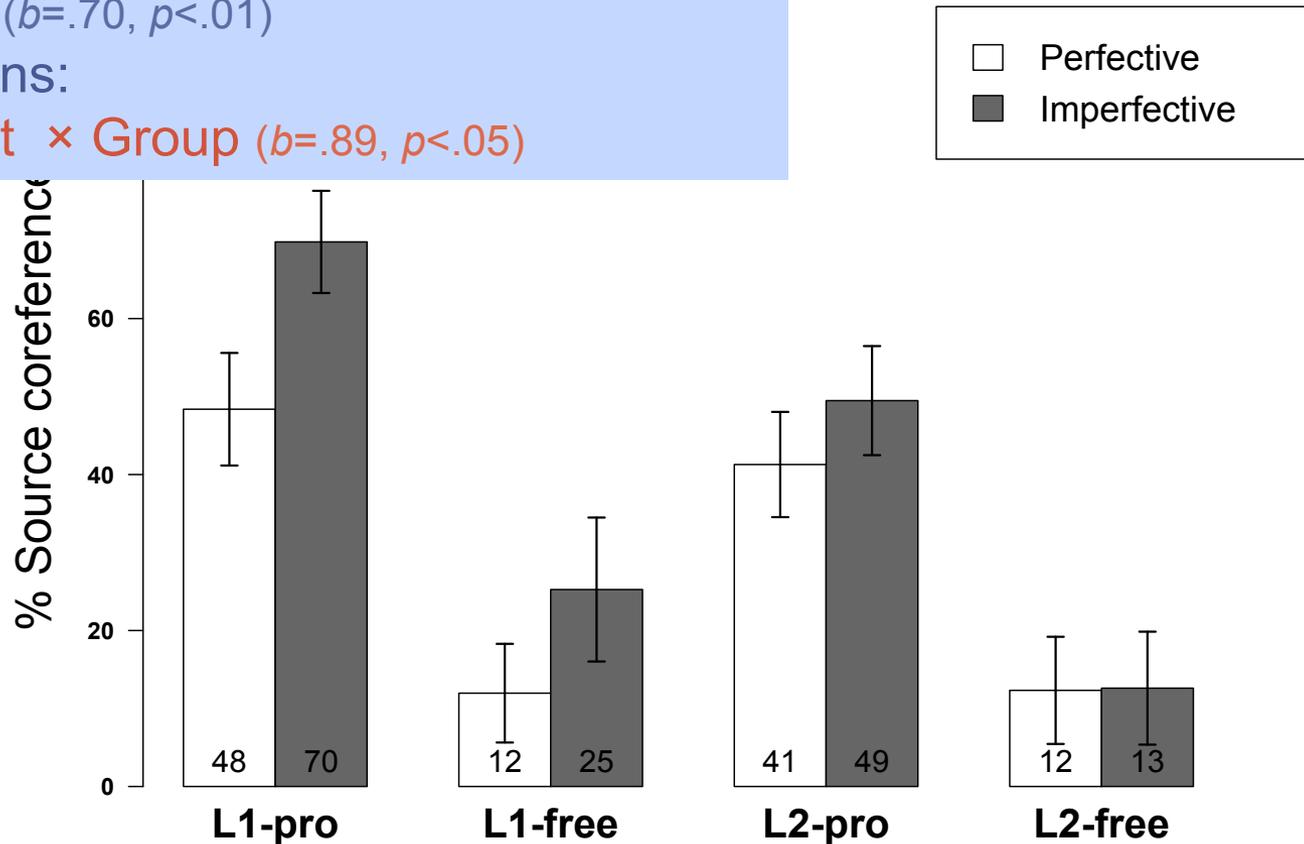
SvsG ~ Aspect * Prompt * Group + (1 + Aspect + Prompt | Subject) + (1 + Aspect + Prompt | Item)

Main effects:

- Aspect ($b=.73, p<.001$)
- Prompt ($b=2.52, p<.001$)
- Group ($b=.70, p<.01$)

Interactions:

- Aspect \times Group ($b=.89, p<.05$)



- both L1 & L2 speakers use prompt type
- reduced effect of aspect in L2

Experiment 2: aural story continuation

Schafer, Rohde & Grüter, 2015-CUNY poster

Schafer, Takeda, Camp, Rohde & Grüter, 2015-ICPhS proc.



She ...

wanted to make her happy.

Exp2

2 (**aspect**) x 2 (**focus**) design

COMPLETED EVENT (PERFECTIVE)

 **EMILY** brought Melissa a fancy drink. She _____

 Emily brought **MELISSA** a fancy drink. She _____

ONGOING EVENT (IMPERFECTIVE)

 **EMILY** was bringing Melissa a fancy drink. She _____

 Emily was bringing **MELISSA** a fancy drink. She _____

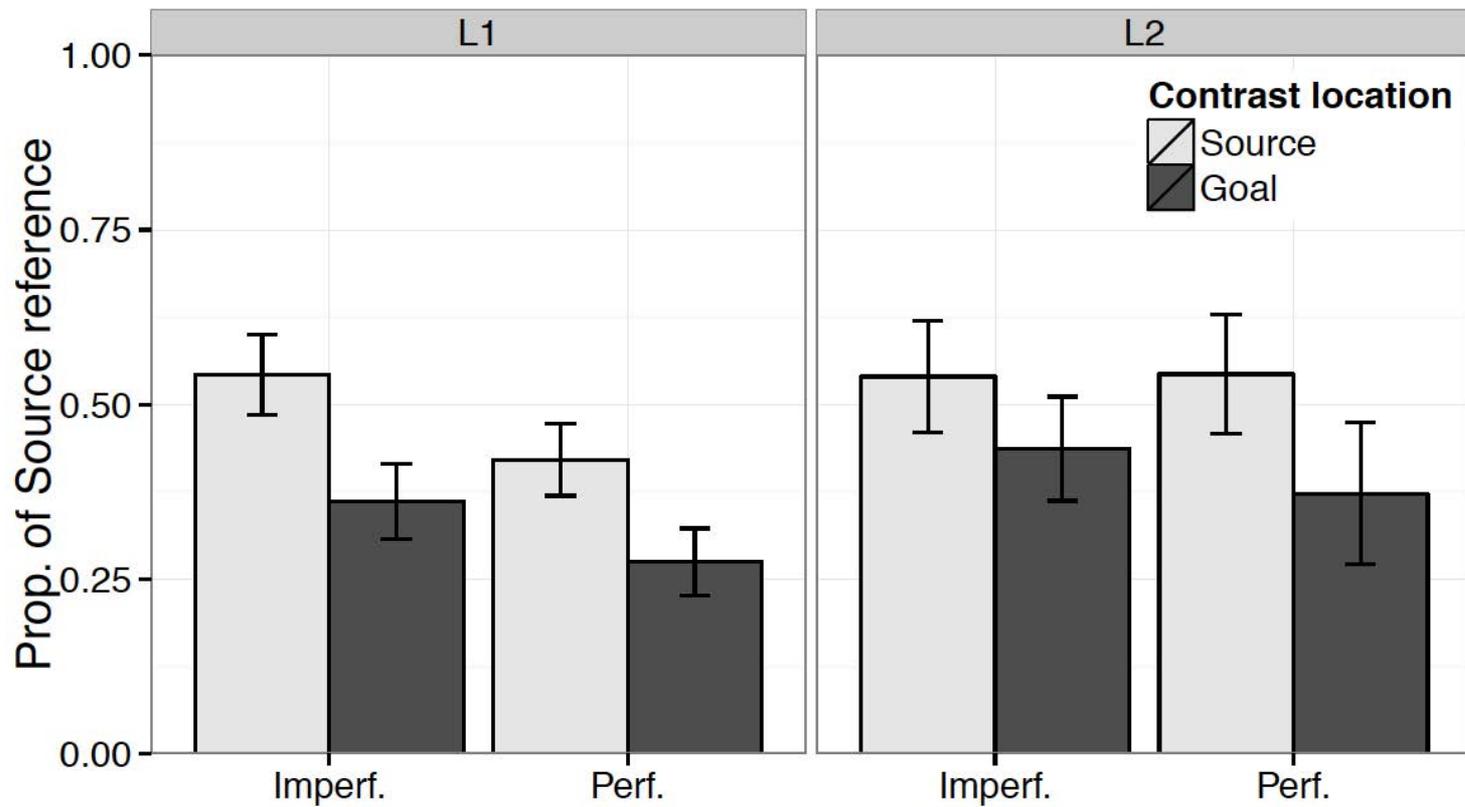
Latin square design, 5 items/condition + 20 fillers
(10 verbs: *bring, e-mail, feed, give, hand, pass, present, roll, serve, throw*)

Participants

	Age (in years)	Versant English Test¹ (overall score, range 20-80)	Self-rated English proficiency (out of 10)
L1-English (n=48)	22 (18-39)	--	9.6 (8-10)
L2-English (n=26)	24 (20-44)	51 (36-80)	6.0 (3-8)
L1-Japanese (n=12)	25 (20-44)	43 (36-57)	5.6 (4-8)
L1-Korean (n=14)	22 (20-26)	57 (37-80)	6.3 (3-8)

¹Pearson (2011; <http://www.versanttest.com>)

Results: Coreference

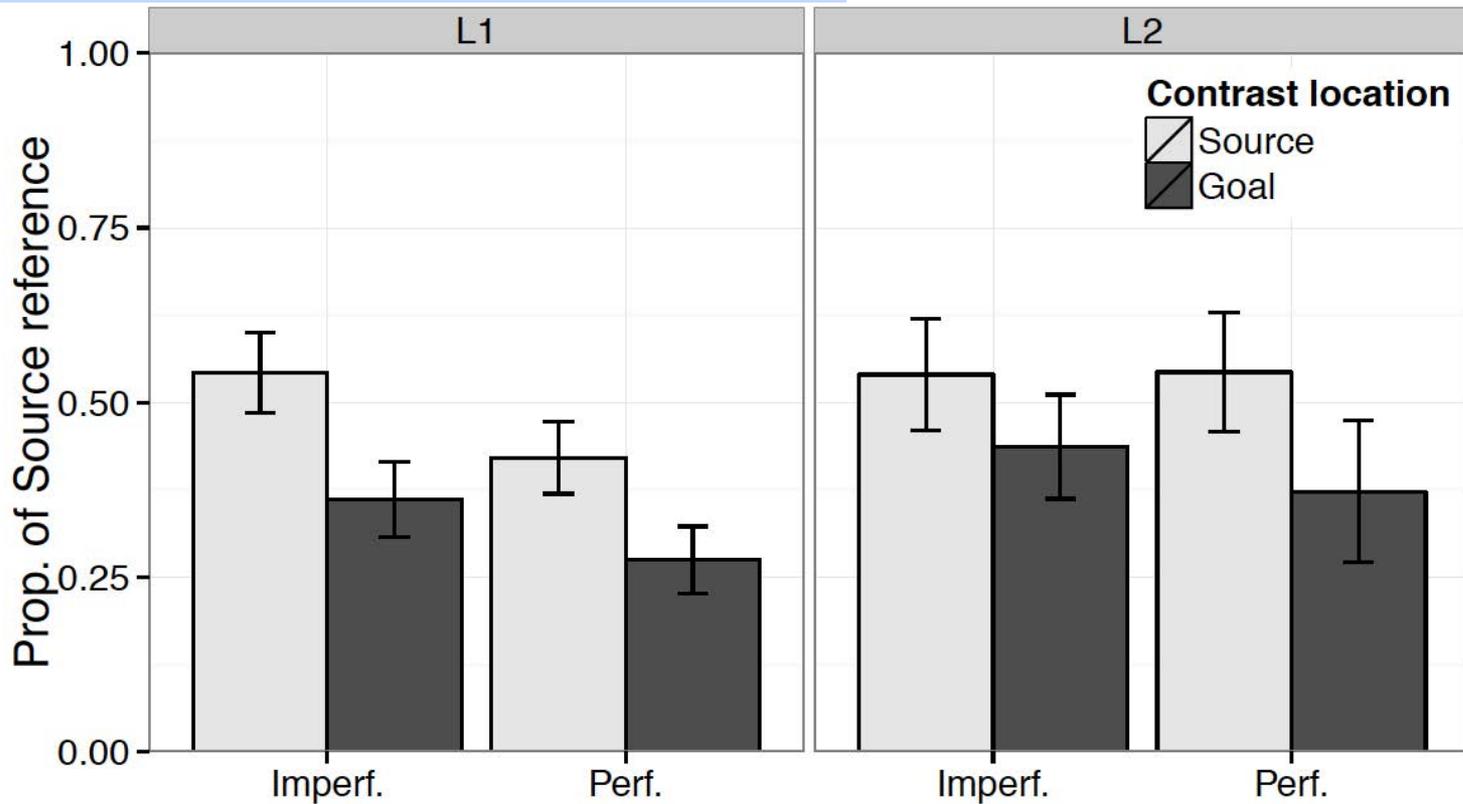


Main effects:

- Aspect ($b=.38, p=.02$)
- Focus ($b=.89, p<.001$)

Interactions:

- Aspect \times Group ($b=.44, p=.11$)



- both L1 & L2 speakers use focus
- reduced effect of aspect in L2

Experiment 3: visual world eye-tracking

- capture referential biases *before* anaphor is encountered
(cf. Pyykkönen & Järvikivi, 2010, for implicit causality)
- adapt design used in ERP study by Ferretti et al. (2009) to show influence of verbal aspect on processing of pronouns

Ferretti, Rohde, Kehler & Crutchley (2009)

Sue handed/was handing a timecard to Fred.

She/He asked about the upcoming meeting.

→ strongest evidence of surprisal at pronoun following perfective + Source-match

Exp3: trial structure

preview	[2000ms]	
context	Donald brought Melissa a fancy drink.	
silence	[2500ms]	
continuation	He obviously liked hosting parties.	
pause	[250ms] [1500ms]	
question	Who liked hosting parties?	
	{mouseclick on box corresponding to answer}	



Donald



Melissa

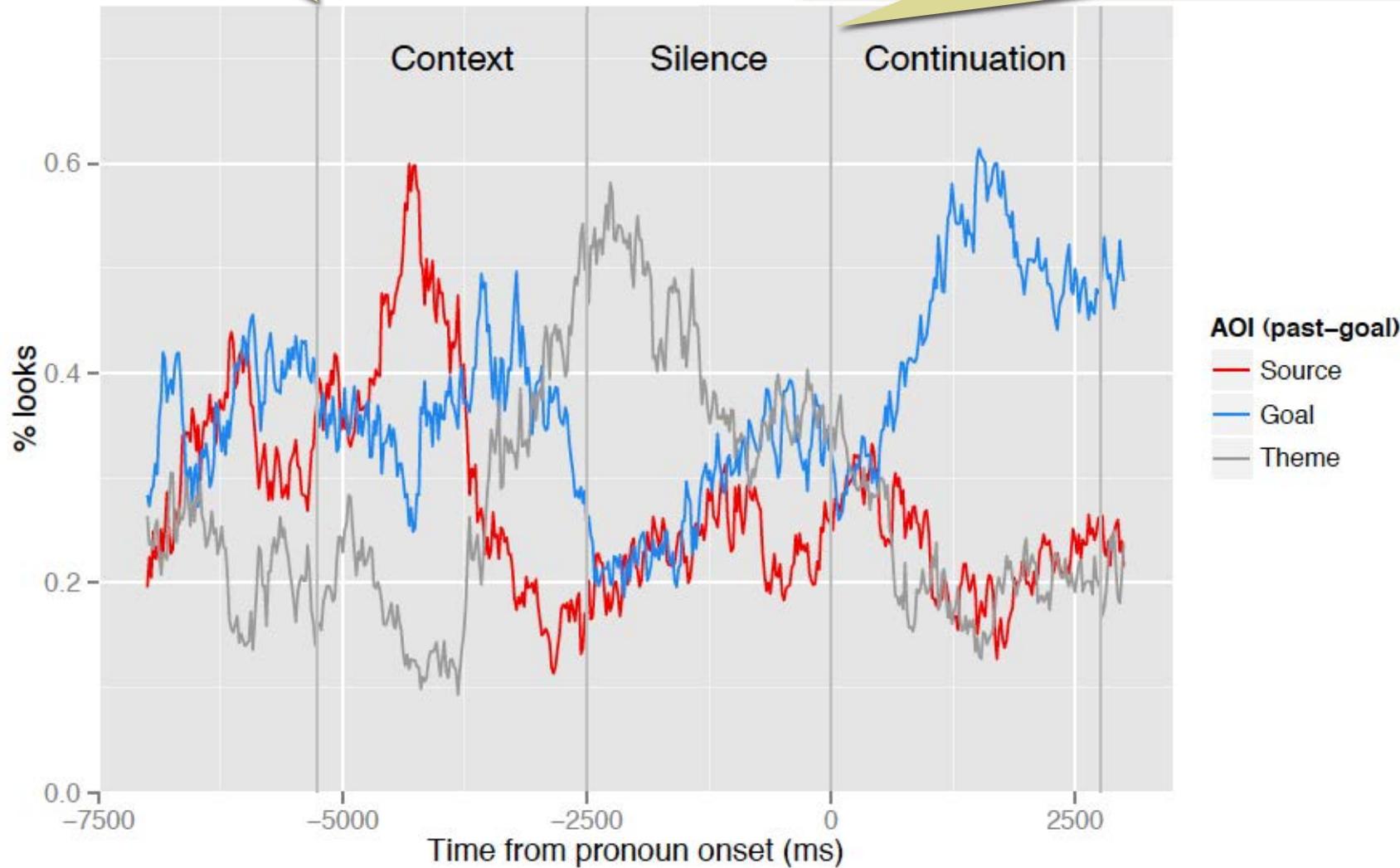
Participants

- L1-English (n=42/ongoing)
- L2-English ... *to come*



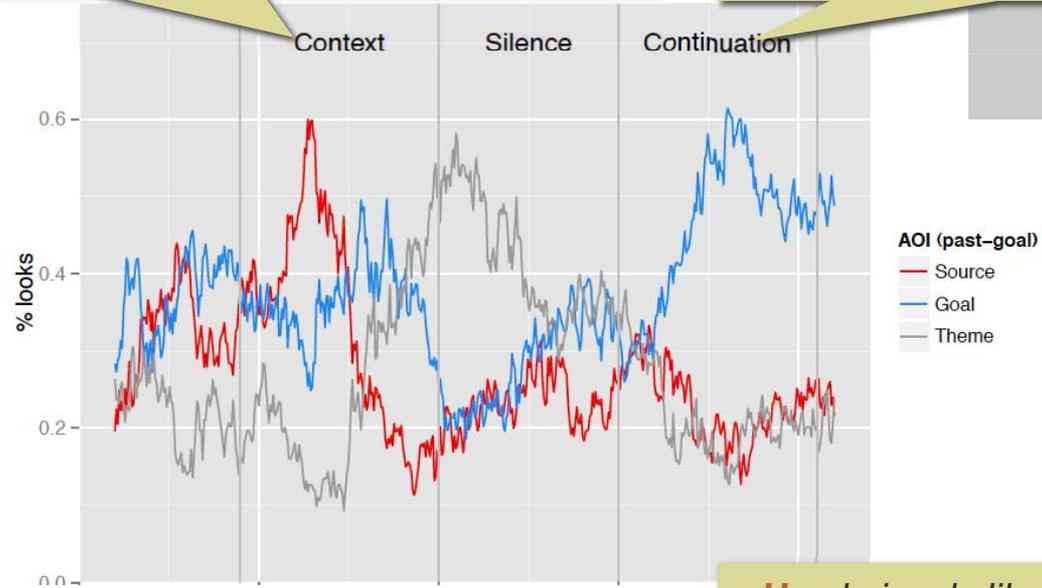
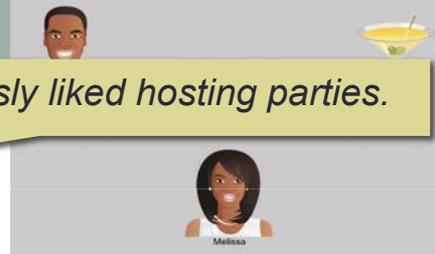
Donald brought Melissa a fancy drink.

She obviously liked hosting parties.

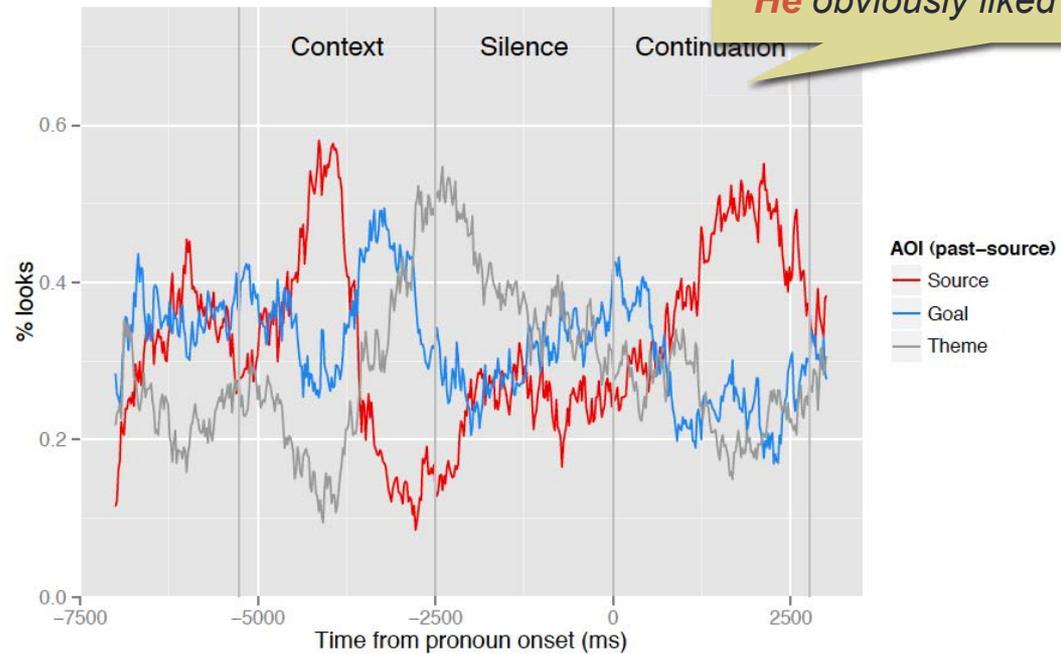


Donald brought Melissa a fancy drink.

She obviously liked hosting parties.



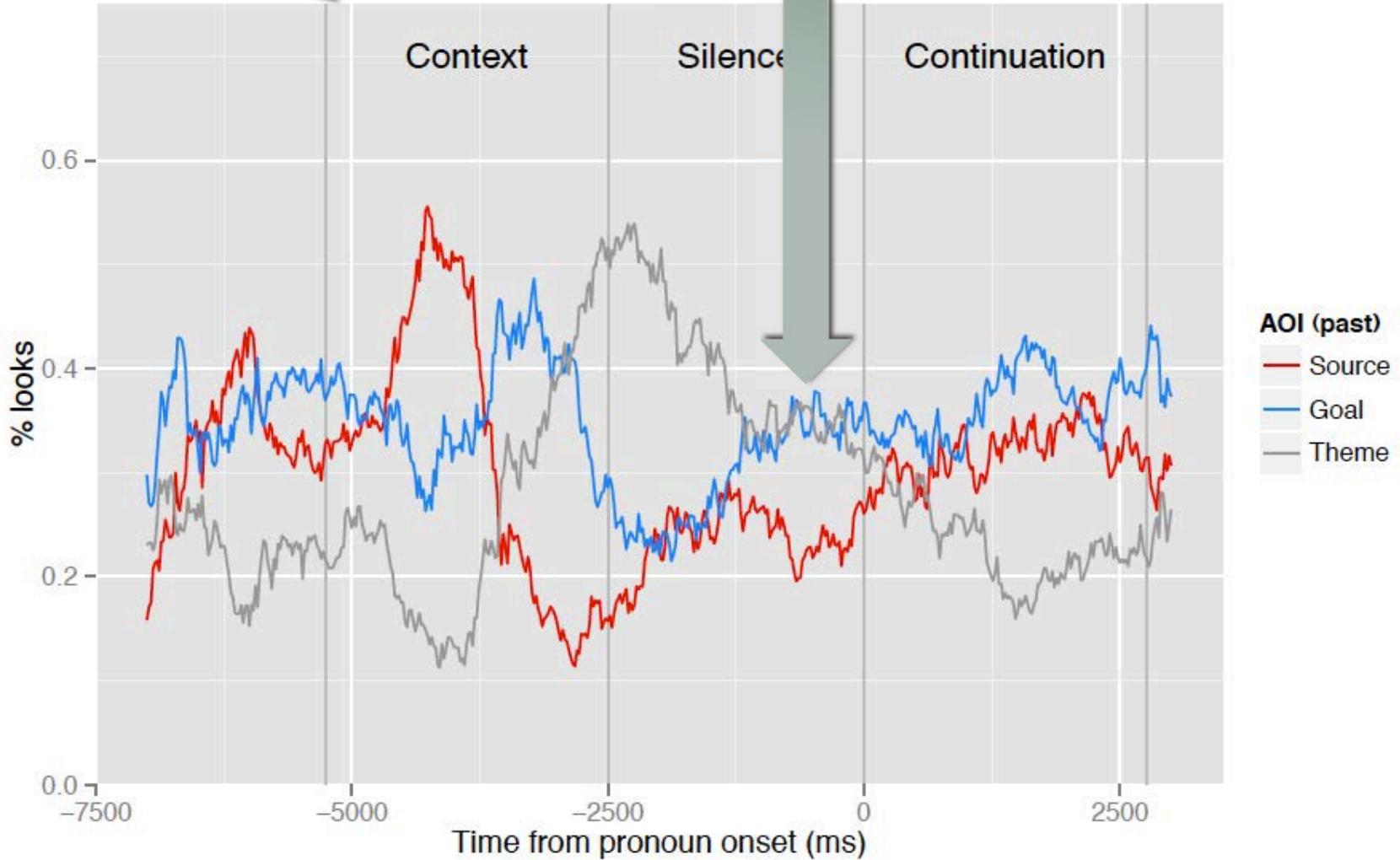
He obviously liked hosting parties.





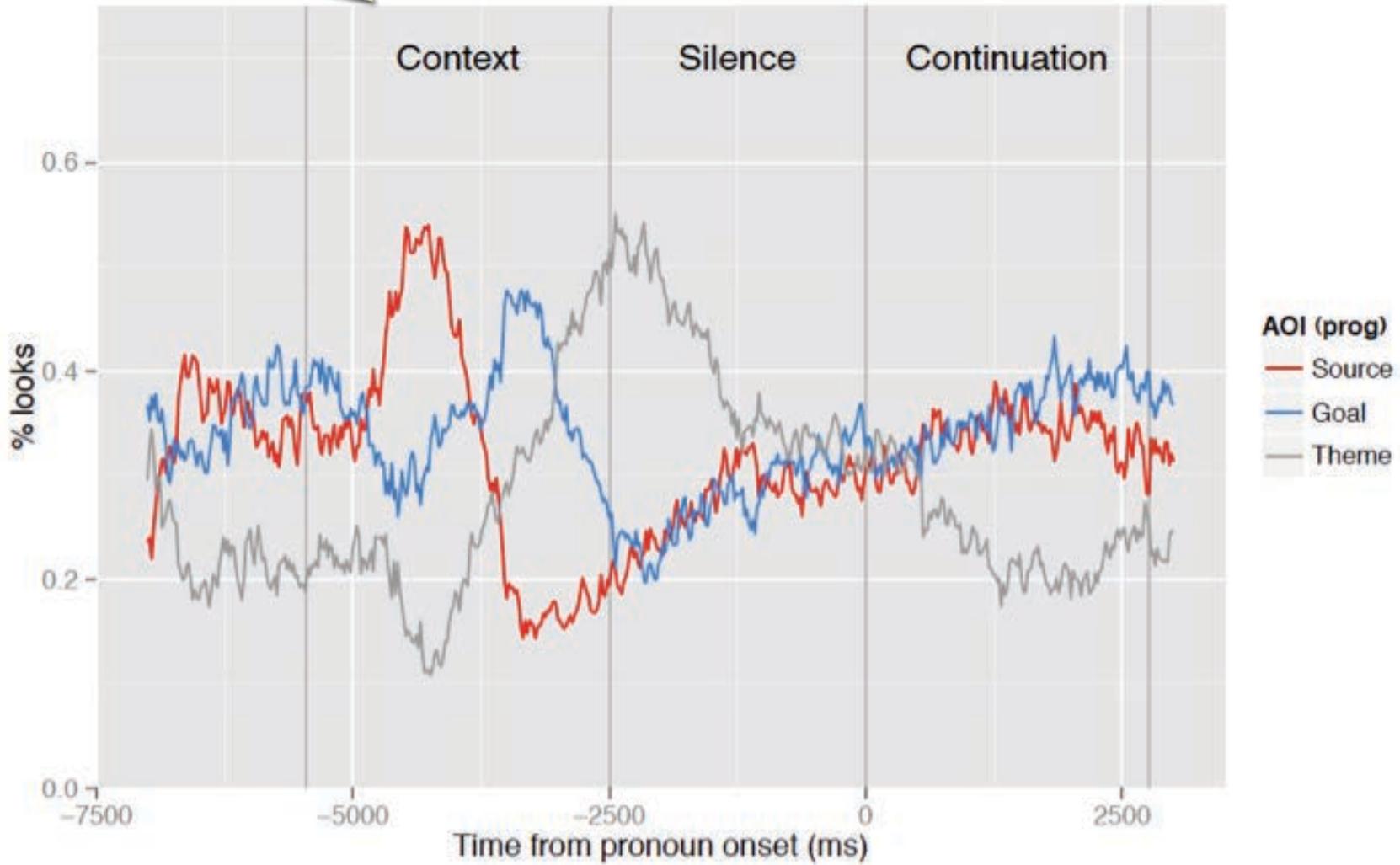
goal bias

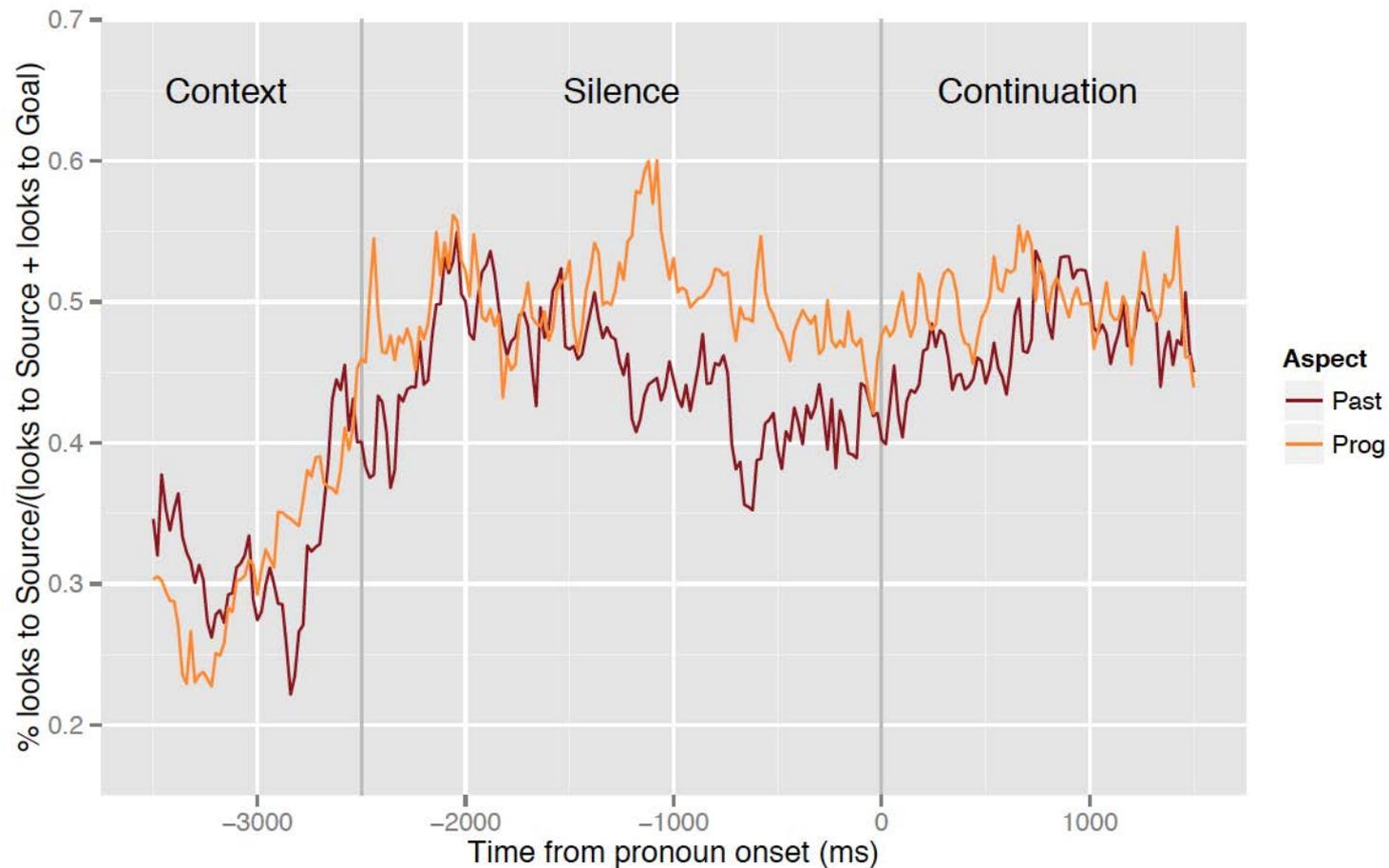
Donald *brought* Melissa a fancy drink.





Donald was bringing Melissa a fancy drink.





→ more looks to Source after Progressive than Past, **before** anaphor is encountered (for L1 speakers)

Exp3: (preliminary) findings

- The effect of aspect/event structure on coreference has an anticipatory component.
- Support for interpretation of Story Continuation results as due to discourse expectations.

The RAGE hypothesis

Non-native speakers have **reduced ability** to **generate expectations**.

	L1	L2
Exp1 (written story cont.)	aspect ✓ prompt ✓	aspect ✗ prompt ✓
Exp2 (aural story cont.)	aspect ✓ focus ✓	aspect ✗ focus ✓
Exp3 (visual world)	aspect ✓ (gender ✓)	



thank you



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