Restrictive relative clause constructions as implicit coherence relations

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Introduction

Before eating many fruits and some vegetables, some people – bad, or perhaps ignorant people – do something which renders the produce less tasty, less colorful, less texturally interesting, and much less nutritious. The worst of these offenses involves one of my favorite fruits: the kiwi. [1]

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[1] https://theawl.com/eat-the-skin-e1881c0cbbdd

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- Non-restrictive RCs are discourse segments
    - John's new couch, which he bought at last week's rummage sale, is extremely comfortable.
- Restrictive RCs are not
    - The painting that John bought yesterday is beautiful.

The function of restrictive RCs is taken to be restricting its referent.

Discourse segments

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some people – bad, or perhaps ignorant people – do something **which renders the produce less tasty, less colorful, less texturally interesting, and much less nutritious.**

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Coherence relation-like restrictive RC constructions

See also: Rohde, Levy, & Kehler 2011; Hoek et al. 2017

Causal

The teacher scolded the student who came in late
$\rightarrow$ The teacher scolded a student because they came in late

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Negative causal / Concessive

Jane fired the guy who was making a lot of money
$\rightarrow$ Jane fired someone, even though he was making a lot of money

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Conditional

I will yell at anyone who whistles
$\rightarrow$ If someone whistles, I will yell at them

Research question

Can and do language users indeed infer a coherence relation between restrictive RCs and their matrix clauses?

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Syntax:

The teacher scolded **the student** <u>who came in late.</u>

Discourse:

The teacher scolded the student <u>who came in late.</u>

Implicit causality

Implicit causality verbs:

- Causal continuation expected
- Bias toward continuation about either the subject or direct object
    - **NP1** <u>Tracy</u> annoyed Tom because <u>she</u> kept complaining
    - **NP2** Tracy fired <u>Tom</u> because <u>he</u> kept complaining

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$\rightarrow$ **Restrictive relative clauses**

Continuation experiment 1

3 conditions:

- Causal (*because*)
- Neutral
- Negative causal / Concessive (*even though*)

Main clauses:

- NP2 IC verbs

Connectives:

- *because*
- *even though*

Continuation experiment 1

Example prompts:

Causal:

We sued the neighbor **who dropped our newly inherited vase** because/even though . . .

Neutral:

We sued the neighbor **who stopped by on Tuesday night** because/even though . . .

Negative causal / Concessive:

We sued the neighbor **who brought over a fruit basket** because/even though . . .

Hypotheses - Next mention

What is the subject of the continuation?

<u>Default:</u> object of the main clause / referent of the RC (NP2 IC)

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- In the causal condition, the IC bias is expected to be fulfilled, leading to fewer NP2 continuations
  - cf. Rohde & Kehler 2015, Solstad & Bott 2013

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    - There are multiple relevant candidates to focus on $\rightarrow$ reduced NP2 bias in the concessive condition

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Even though:

- Overall reduced NP2 bias

Continuation experiment 1

- 30 target items

- 40 fillers

- 6 lists

- Participants recruited through Amazon MTurk

- 56 participants - Native speakers of English

- 1680 continuations

Continuations – Next-mention

Mrs. Thompson loathed the gardener who never took off his muddy shoes because . . .

- NP2
    - he tracked dirt all through the house.
- NP1
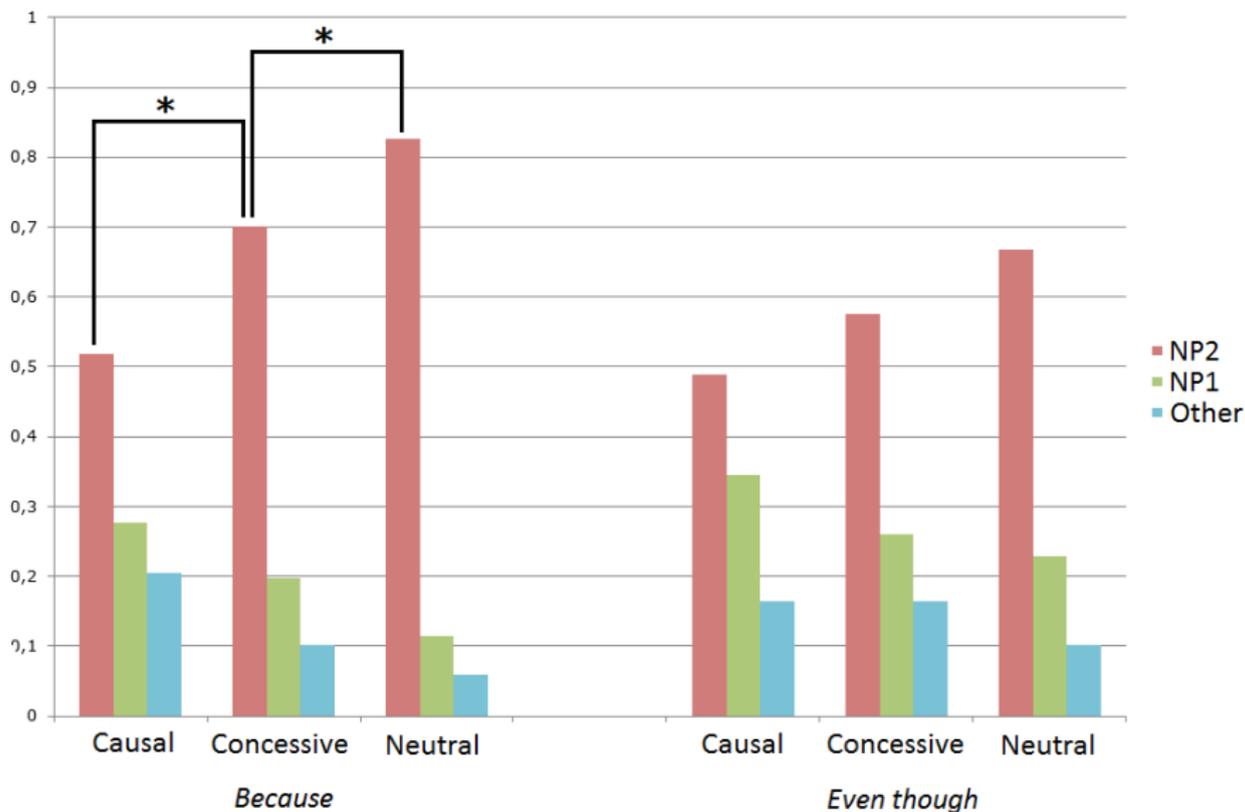   - she had to clean up after him.
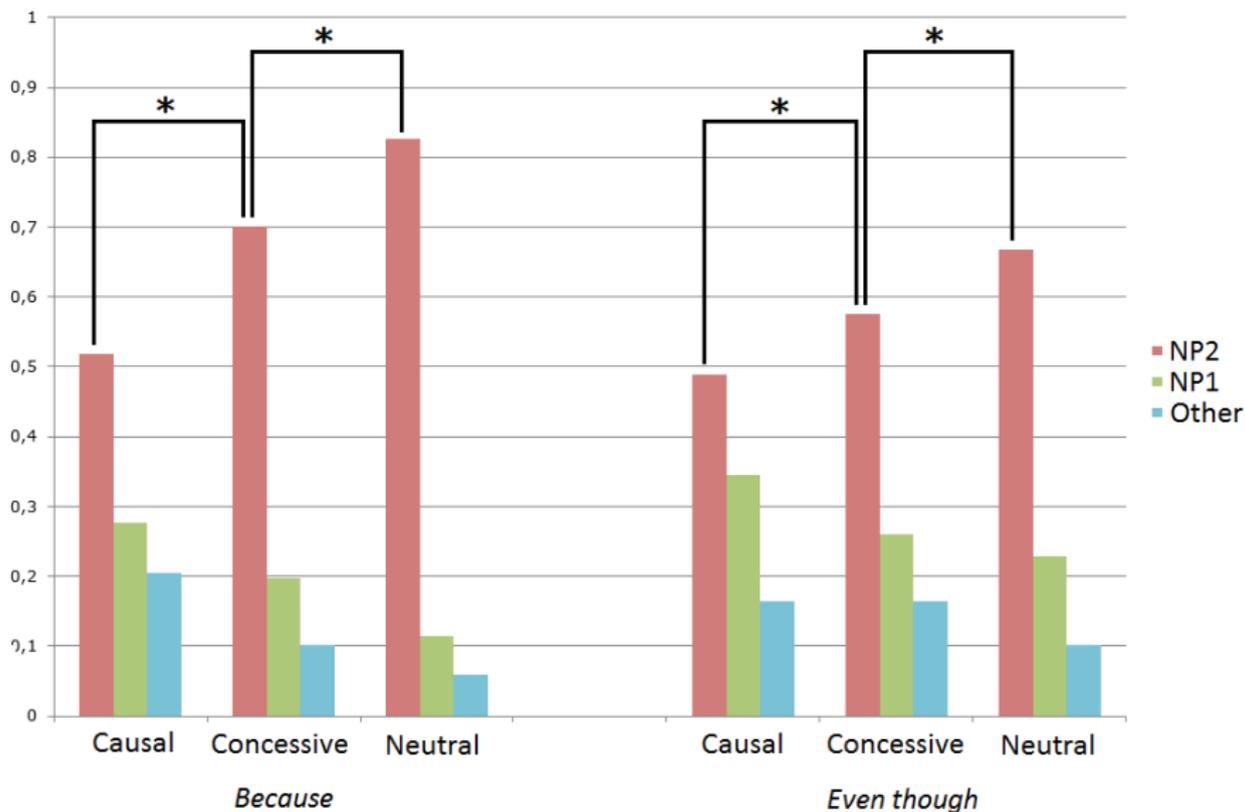- Other
    - it made the house dirty.

Results experiment 1 – Next-mention
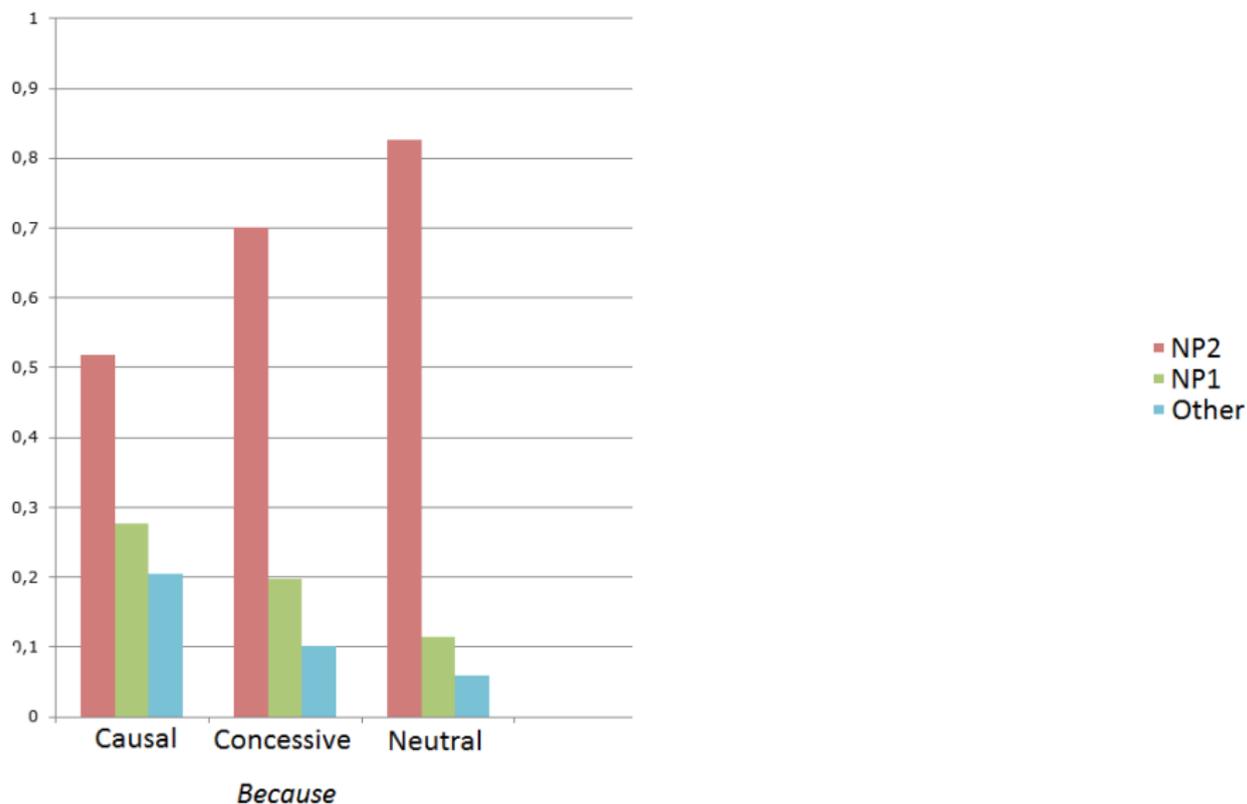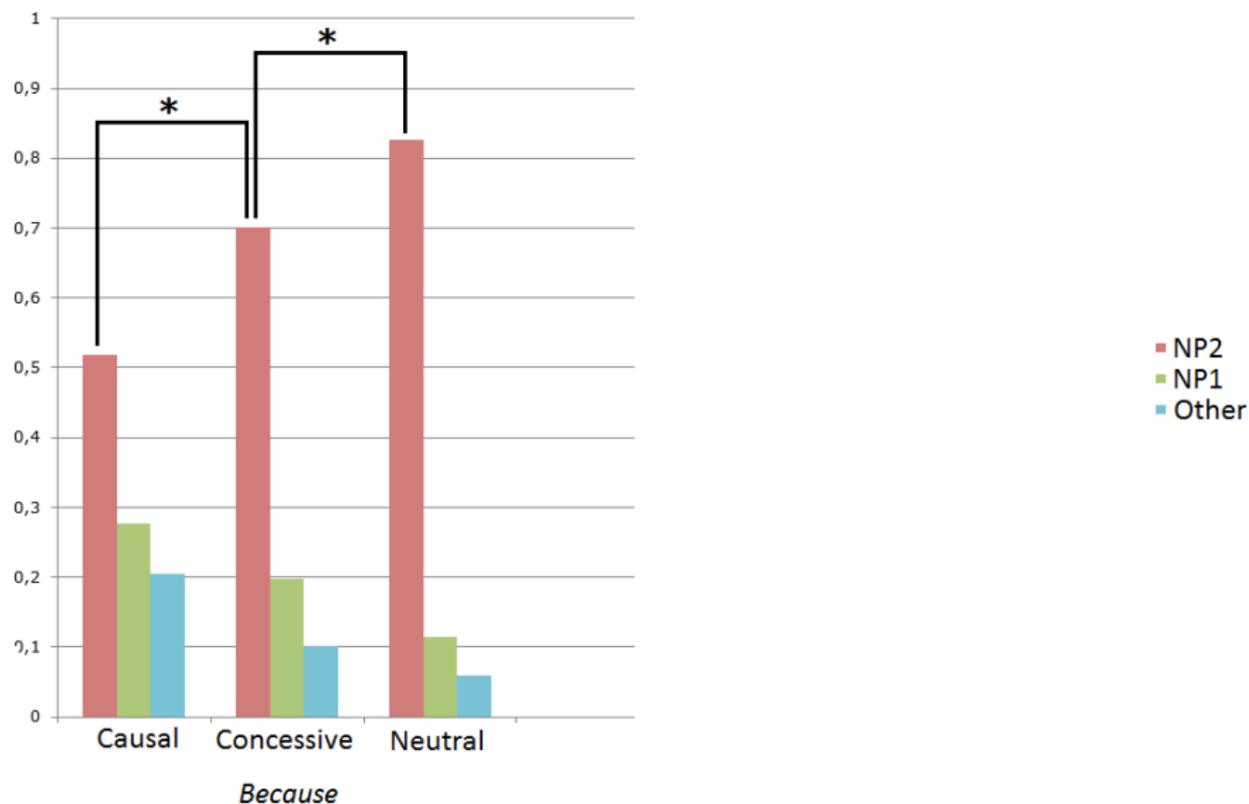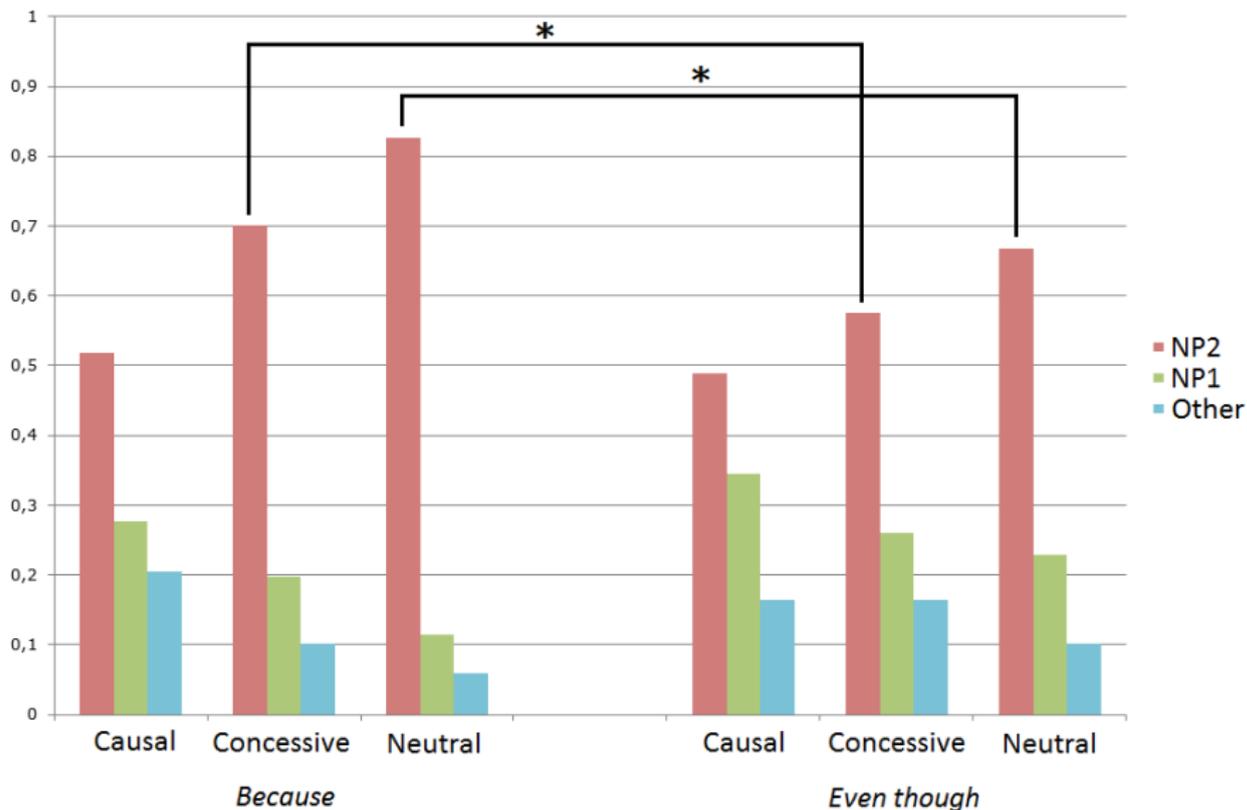
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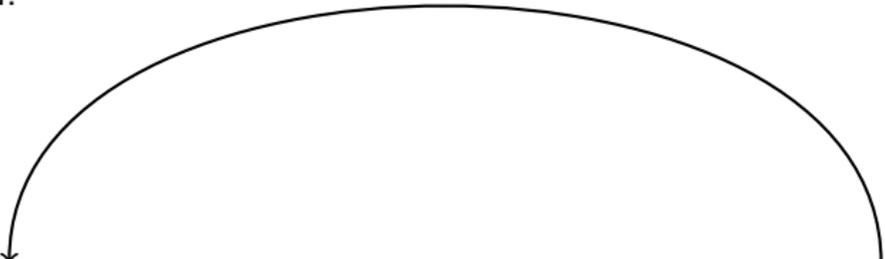# Results experiment 1 – Next-mention

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Attachment

High:

We sued the neighbor <u>who came by on Tuesday night</u> **because he assaulted our son**.
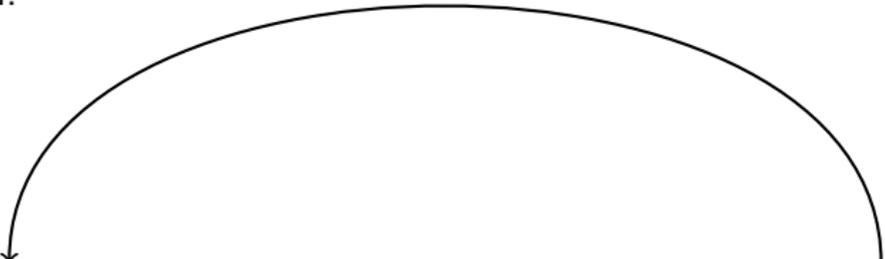
Low:

We sued the neighbor <u>who dropped our newly inherited vase</u> **because his hands were slippery**.

Attachment

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Low:

We sued the neighbor <u>who dropped our newly inherited vase</u> **because his hands were slippery**.

Hypothesis: Fewer high attachments in the causal+*because* condition

Continuation experiment 2

3 conditions:

- Causal (*because*)
- Neutral
- Negative causal / Concessive (*even though*)
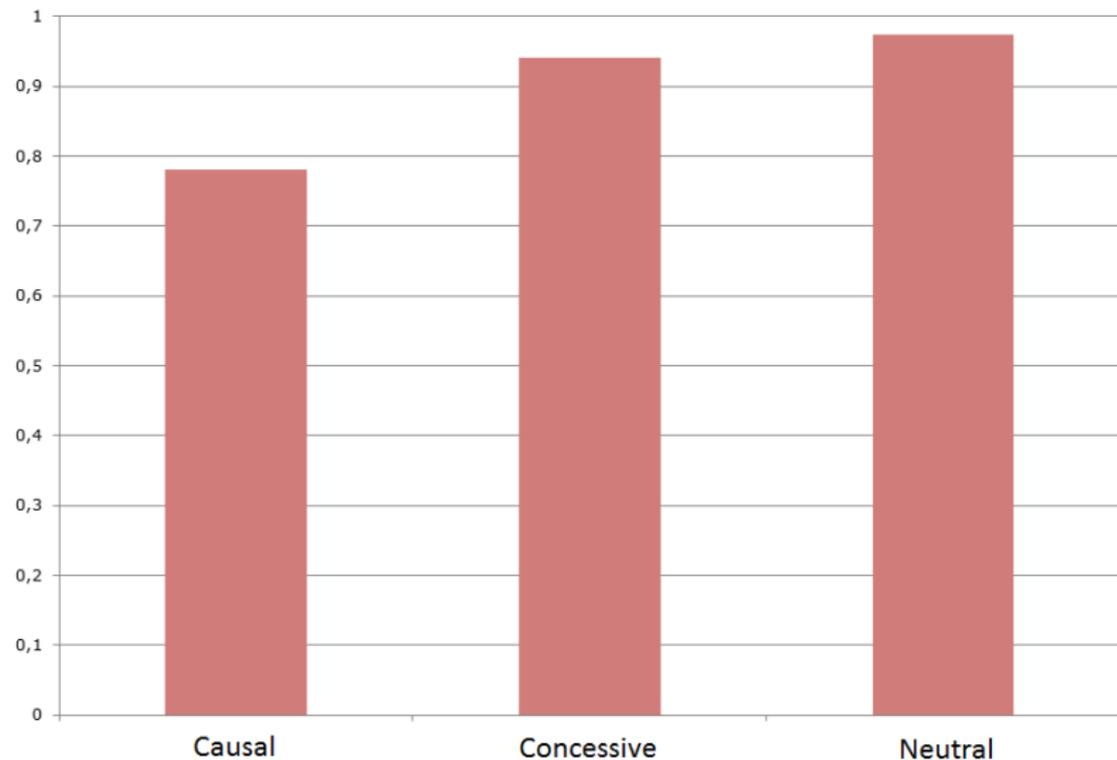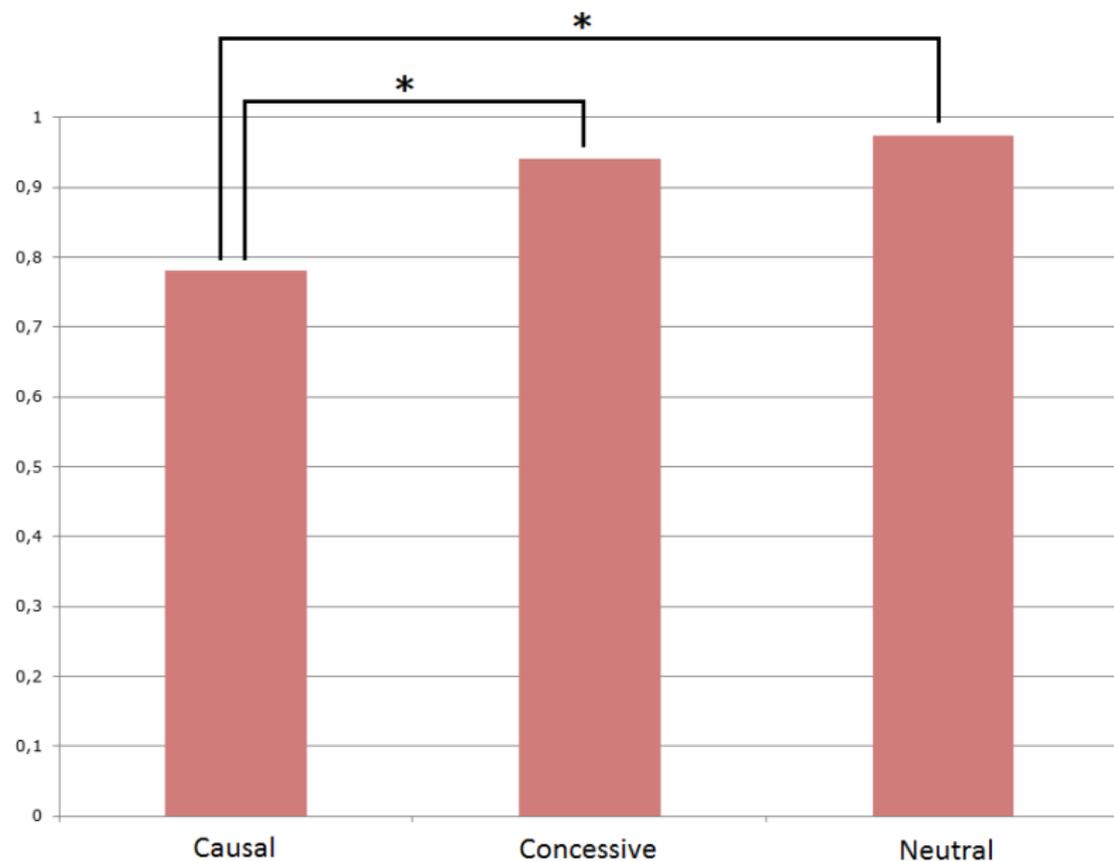
Main clauses:

- NP2 IC verbs

Connectives:

- *because*

Continuation experiment 2

- 30 target items

- **40 fillers $\rightarrow$ Attachment bias**
  - John said that if Jenny wanted to become famous . . .

- 3 lists

- Participants recruited through Amazon MTurk

- 55 participants - Native speakers of English

- 1650 continuations

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Conclusions + next steps

- Restrictive RCs can affect discourse level phenomena
    - **Coreference** - The referent about which a continuation is expected
    - **Discourse structure** - The part of the text to which a connective is expected to attach

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    - There can be a coherence relation between a restrictive RC and its matrix clause (?)
    - Restrictive RCs can be discourse segments (?)

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    - **Coreference** - The referent about which a continuation is expected
    - **Discourse structure** - The part of the text to which a connective is expected to attach

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Next steps

- Test whether people make discourse-level inferences when reading restrictive RCs *online*
    - Self-paced reading experiment
    - Eye-tracking experiment

Thank you!

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