

Look Away! An Object is Coming

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Principle B

Pronouns and local R-Expressions must be disjoint in reference:

Callie_i loves her_{*i/j}

When do these effects arise and what does that timecourse tell us about the underlying grammatical constraint(s)?

Principle B in Real Time

Antecedent retrieval occurs quickly and accurately at pronoun in reading

The surgeon_i remembered that Jennifer_j noticed him_{i/*j}



Assumed to reflect **pronoun-driven processing**, e.g. cue-based retrieval

Kush et al., (2015); Cunnings et al., (2015); Cunnings & Sturt (2018); but cf. Badecker & Straub (2002)

Obviation

But is Principle B entirely pronoun driven?



There are reasons to suspect that it could occur even sooner;
predictively

Obviation: Coarguments of a predicate should be disjoint, all else equal
– reflexive meanings need special licensing

Obviation in Real-Time

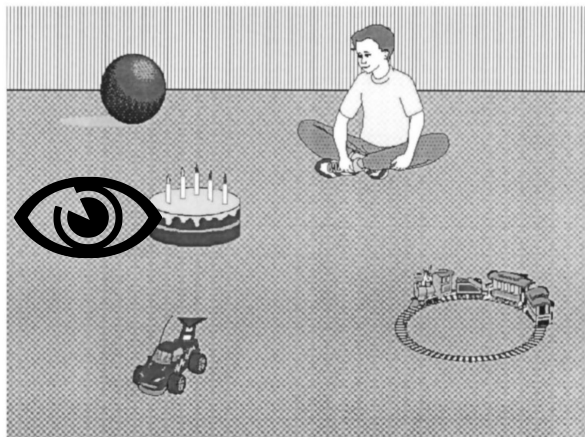
Given a transitive predicate, will listeners assume disjoint reference between the subject and upcoming object?

Can Principle B effects be computed before the pronoun?

Visual World Paradigm

"The boy will eat the ..."

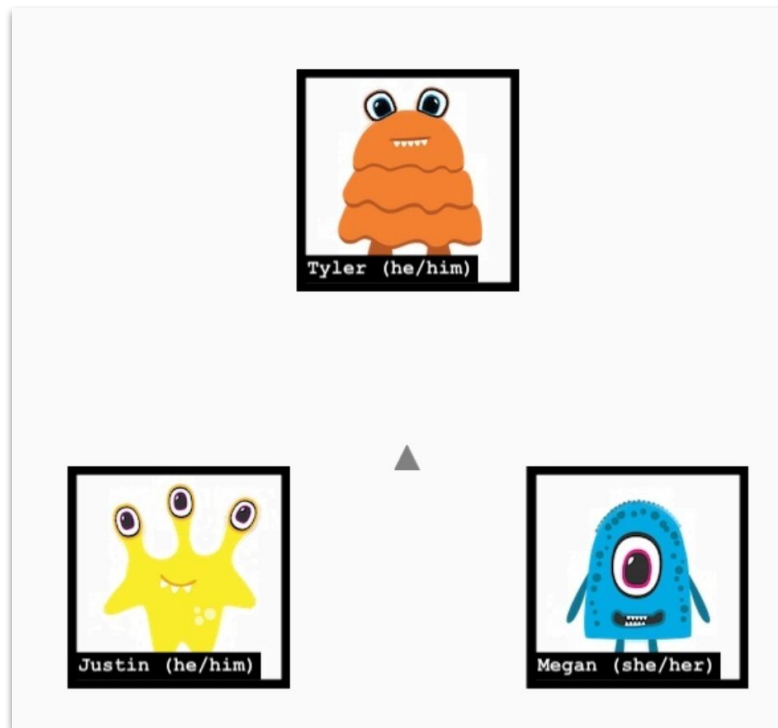
Comprehenders predict reference of an object before bottom-up input (Altmann & Kamide, 1999)



Visual World Paradigm



“Tyler followed him”

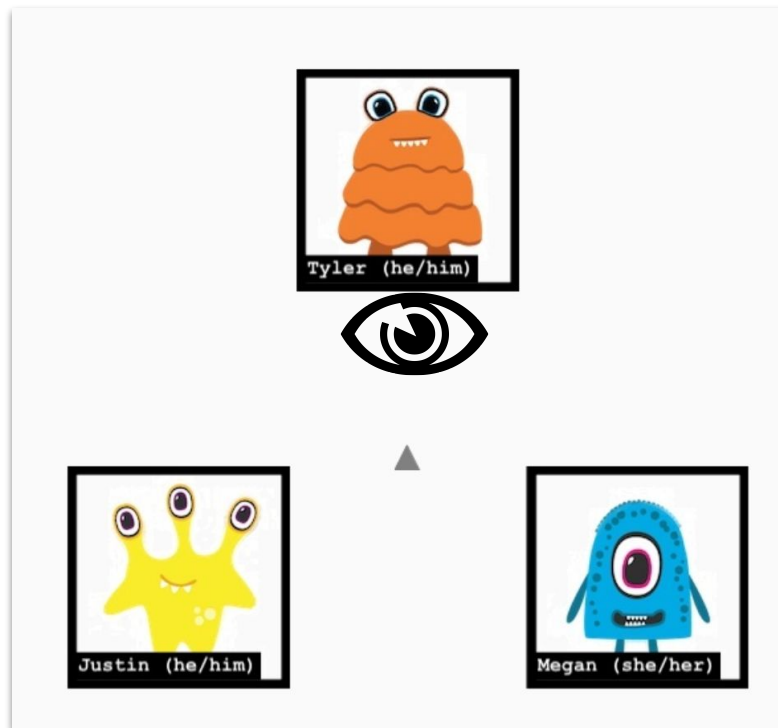


The task: click on the alien referred to by the pronoun/reflexive

Visual World Paradigm



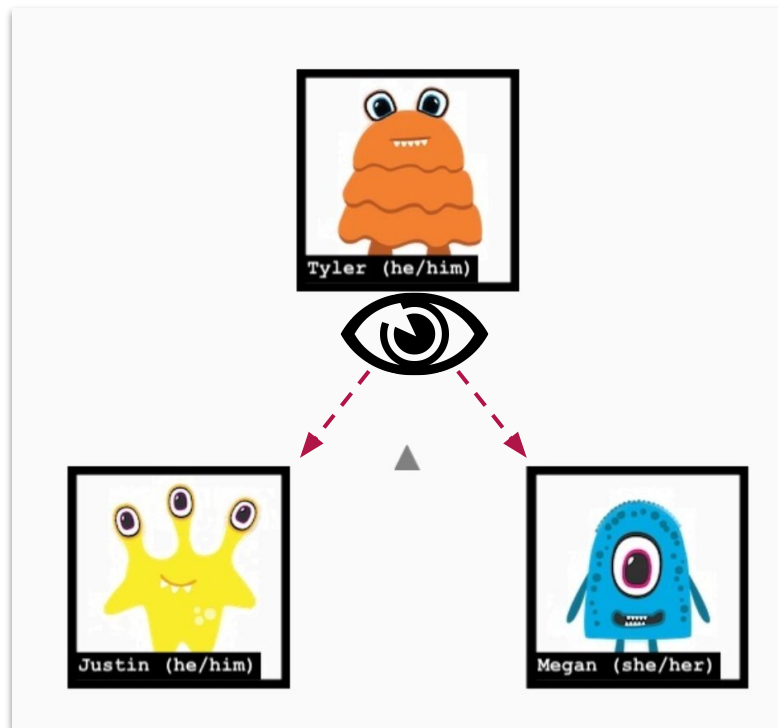
“Tyler followed him”



Visual World Paradigm



“Tyler **followed** him”

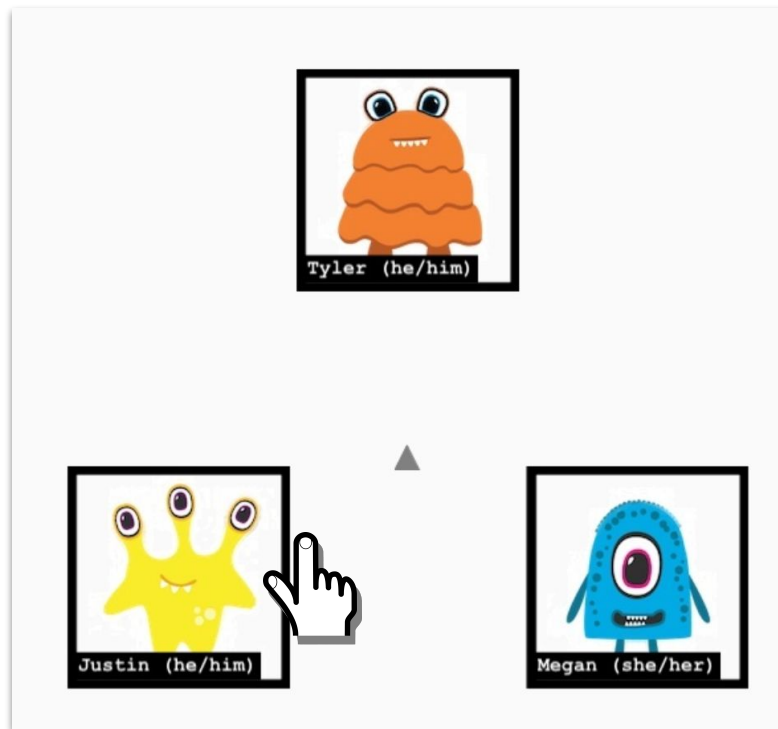


Our measure:
anticipatory
saccades away
from the subject
region within the
verb window

Visual World Paradigm



“Tyler followed
him”

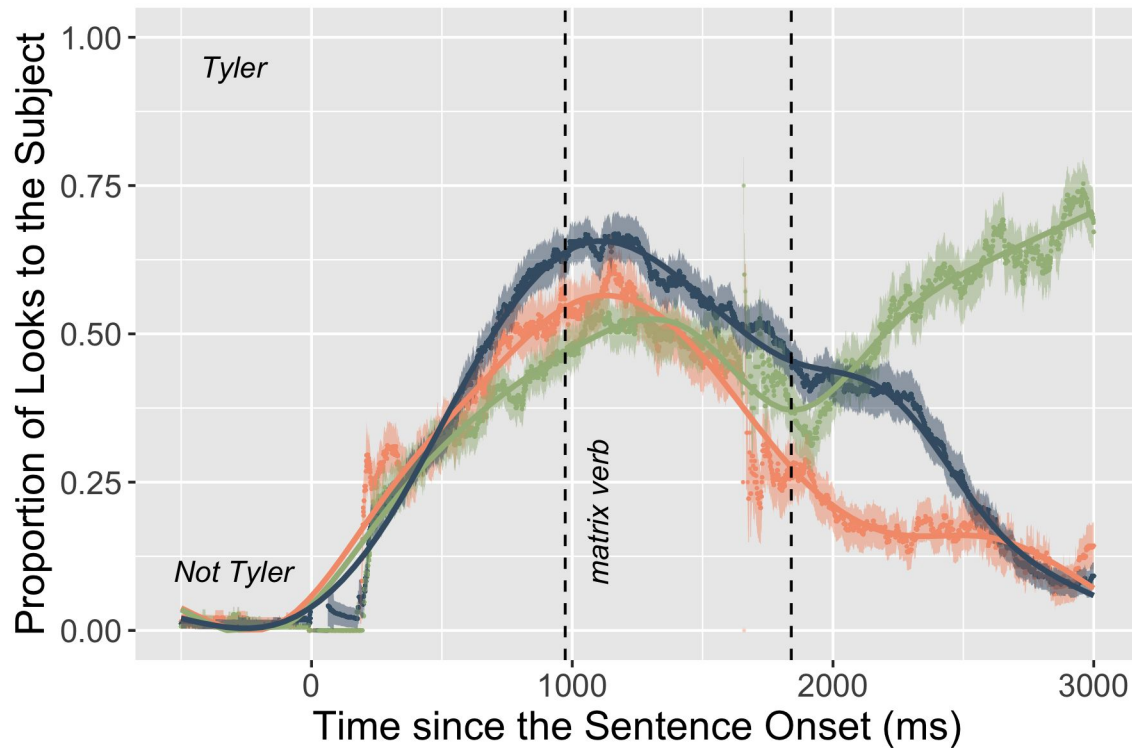


Materials

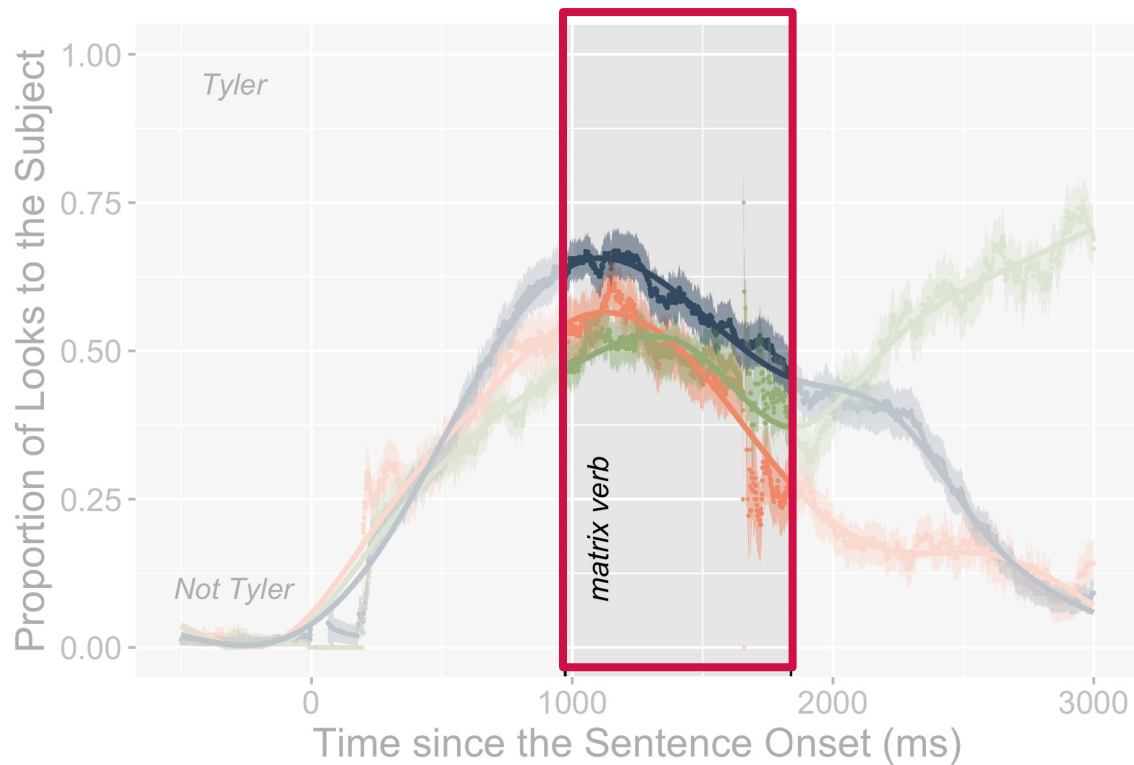
Condition	Sentence
Anti-Reflexive Biased	Tyler followed him
Reflexive Biased	Tyler redeemed himself
CP Complement	Tyler surmised that Megan followed him

Real Time Obviation → look away from the subject region for the transitive verbs more than the CP complement verbs

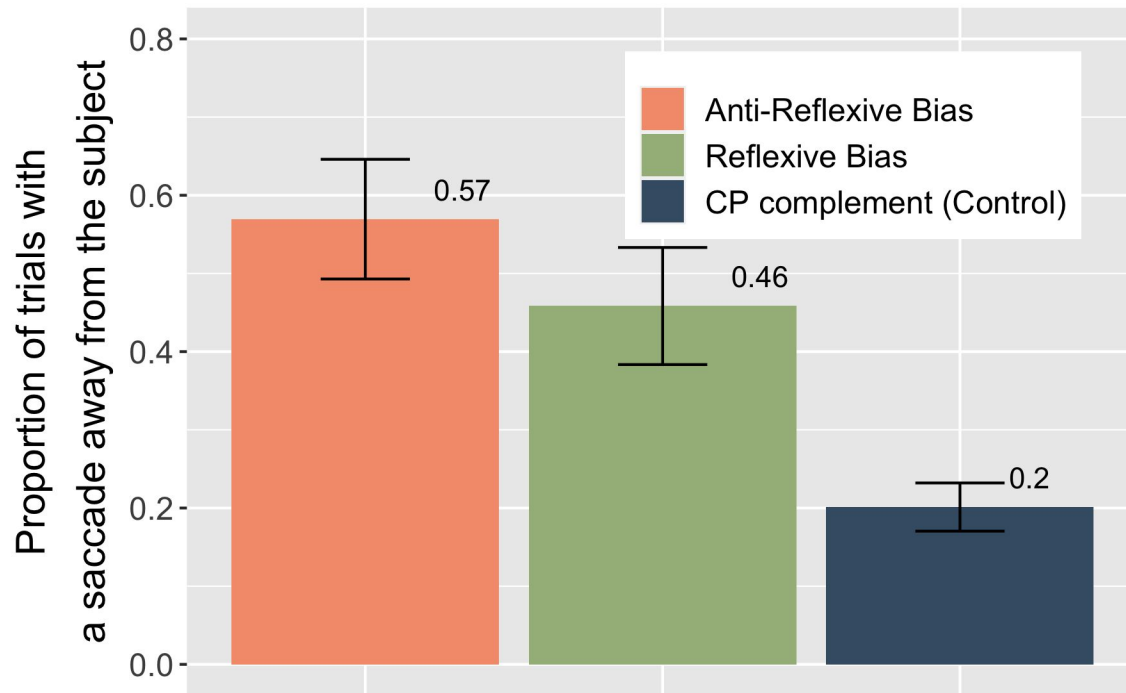
Results



Results



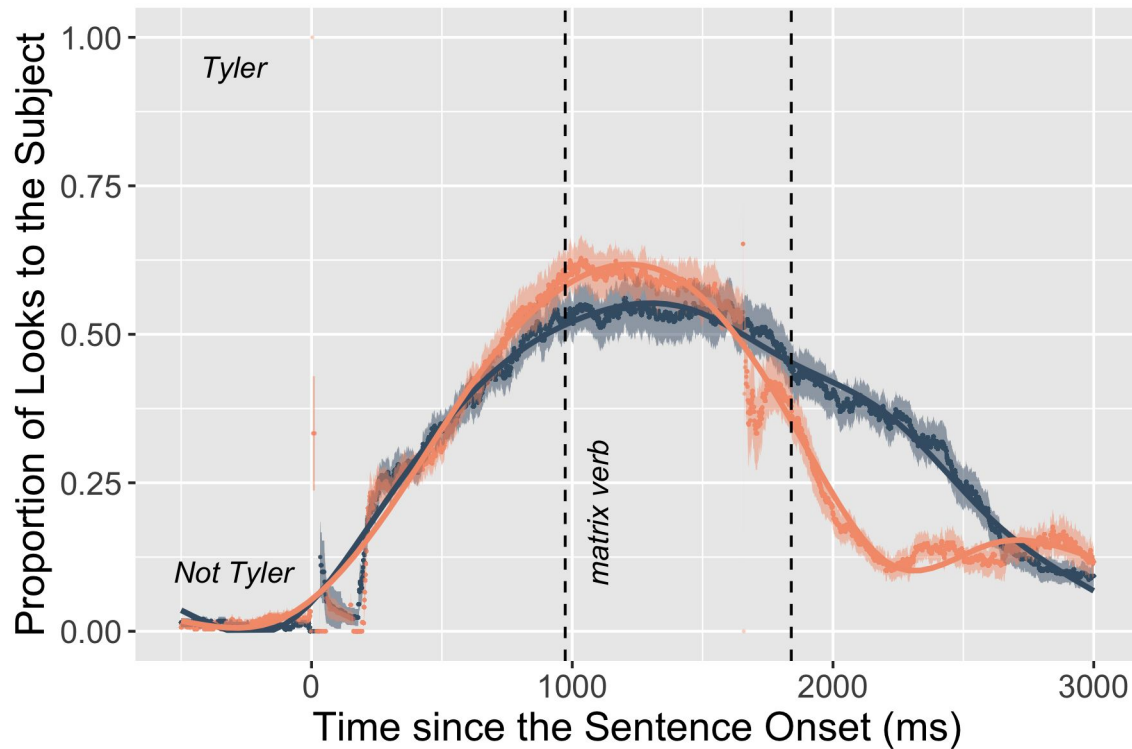
Results



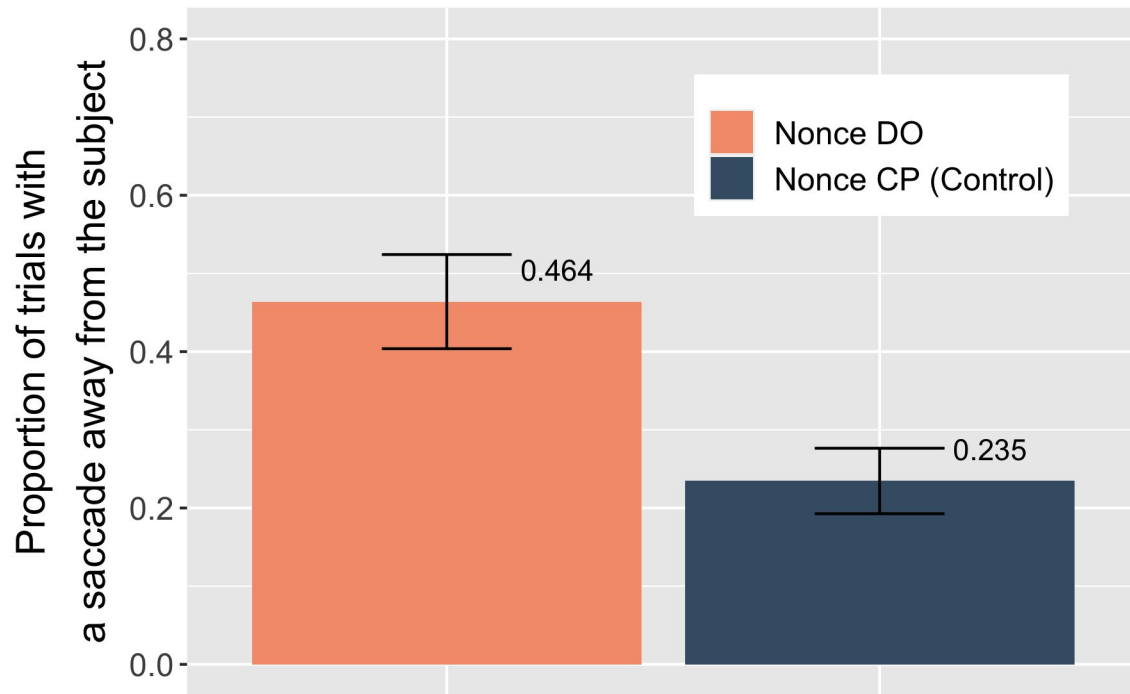
“Jabberwocky” Materials

Condition	Sentence
Anti-Reflexive Biased	Tyler followed him
Reflexive Biased	Tyler redeemed himself
CP Complement	Tyler surmised that Megan followed him
Nonce DO	Tyler plimulated him
Nonce CP	Tyler slopogated that Megan plimulated him

Results



Results



Evidence for Real Time Obviation

Participants have a preference for disjoint reference; they look away from the subject of a transitive verb **before they have encountered a pronoun**

Tyler {transitive verb} ...

verb(Tyler, x)
x ≠ Tyler

Thank you!!

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Extra

Nonce Verbs:

- Plimulated
- Slopogated
- Ipportalized
- Ippuustrated
- Undisgoited
- Intropucted

Reflexive Verbs:

- Prided
- Redeemed
- Exerted
- Vindicated
- Disgraced

Anti-Reflexive Verbs:

- Followed
- Adopted
- Interrupted
- Overthrew
- Befriended

CP Verbs:

- Whispered
- Mumbled
- Assumed
- Exclaimed
- Disclosed
- Divulged
- Proclaimed
- Deduced
- Inferred
- Surmised