Essentially blocked: the role of structural factors in blocking essentialism

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What language leads to essentialism?

It has been proposed that formal explanations lead to essentialism…

there's an inherent reason why category members have the property (Gelman et al, 2018, Muradoglu et al, 2019)

Essentialism (Gelman, 2004)
Category members all possess an essence that innately produces deep unchangeable similarities.

e.g. gender essentialism

Formal explanations (Prasada & Dillingham, 2006)
Individual has _ property
because it is a member of _ category.

there's a structural reason why category members have the property

…but this may not always be the case.

Structural explanation (Haslanger, 2016)
A category is situated in a broader context where stable external forces (structural factors) operate on category members.

e.g. gendered socialization/marketing, sexism in academia

"Suzy wears pink because she is a girl."
"Suzy didn't get tenure because she is a woman."

Does the availability of information about a structural context modulate whether formal explanations lead to essentialism?

Methods

adults (n=183)
replication (n=187)
5-6yo (n=123/192)
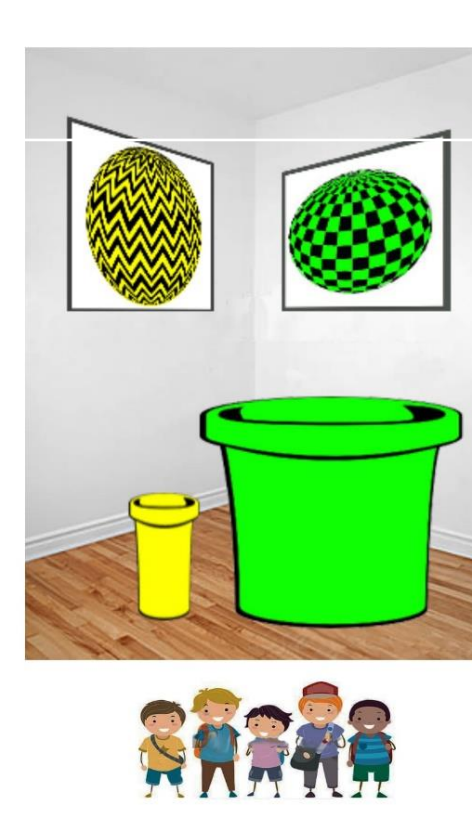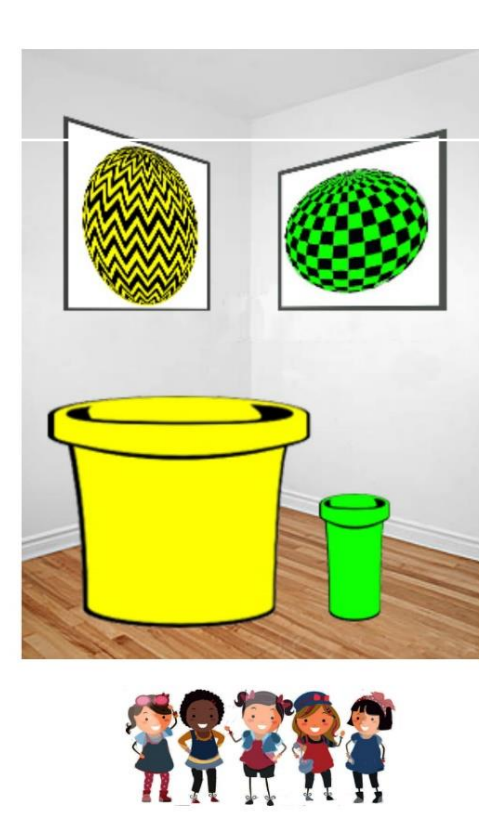
2×2 design:
context × explanation

1) context (Vasilyeva et al, 2018)
school w gender-segregated classrooms, toss pebble into bucket to decide game to play

nonstructural — classrooms not skewed

structural — classrooms skewed so diff genders likely play diff games

2) statistical information
(Vasilyeva et al, 2018)

boys in boys' classroom play more Green-Ball

and

girls in girls' classroom play more Yellow-Ball

3) explanation
(Muradoglu et al, 2019)

control
"Suzy is a girl.
She plays Yellow-Ball."

formal explanation
"Suzy plays Yellow-Ball because she is a girl."

4) measure essentialism   4 point scale = Yellow-Ball/Green-Ball × for sure/maybe

essentialism (0-1)

Does Suzy play Yellow-Ball because she likes playing Yellow-Ball (internal preference), or because of the size of the buckets in her classroom (context)? (2 force-choice)   force-choice explanation

(introduce new girl who goes to a different school without buckets) What game will Lucy play? (4 point)   inductive potential without context

(Suzy goes to boys' classroom) What game will Suzy play today? (4 point)   switched context
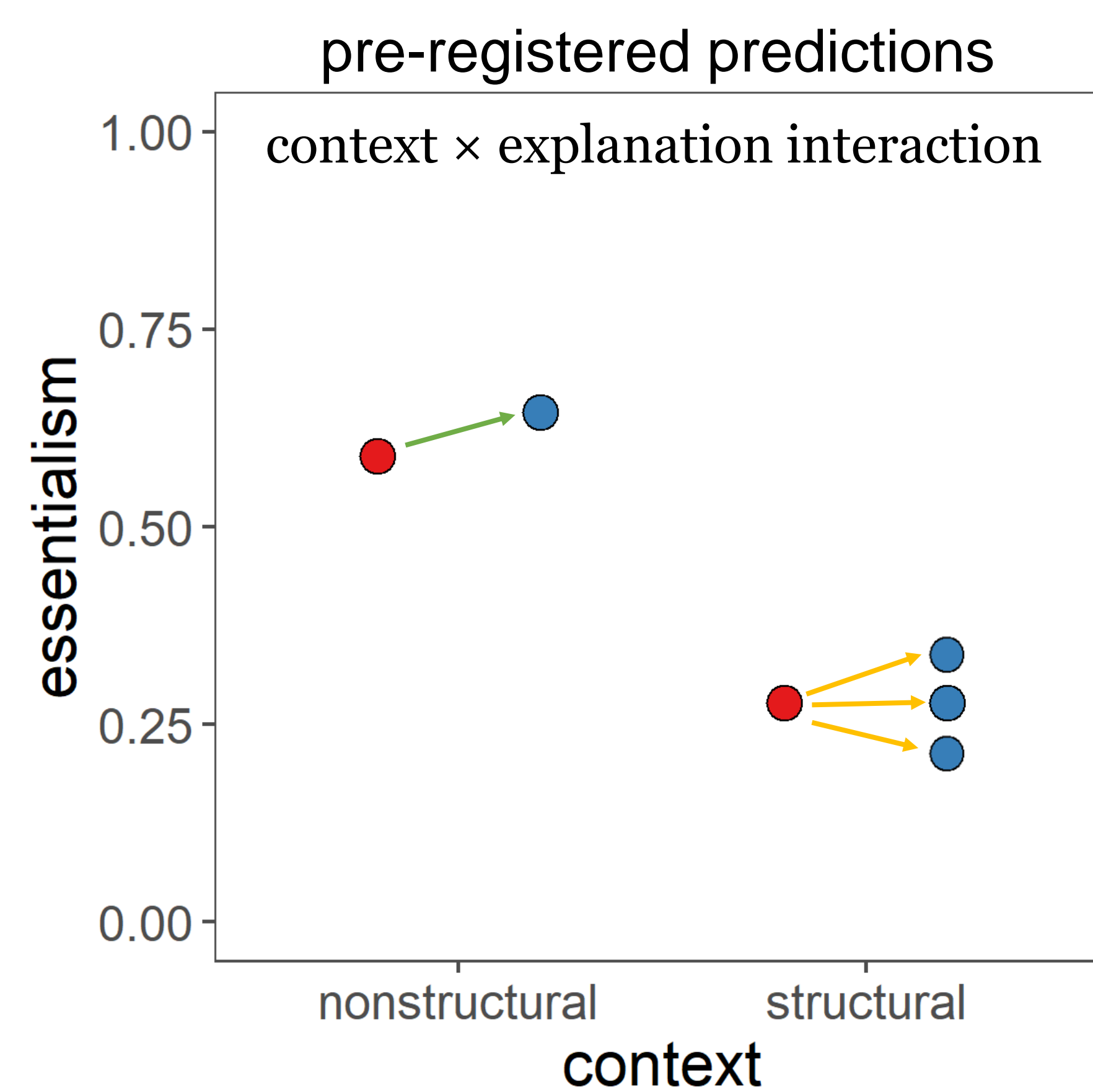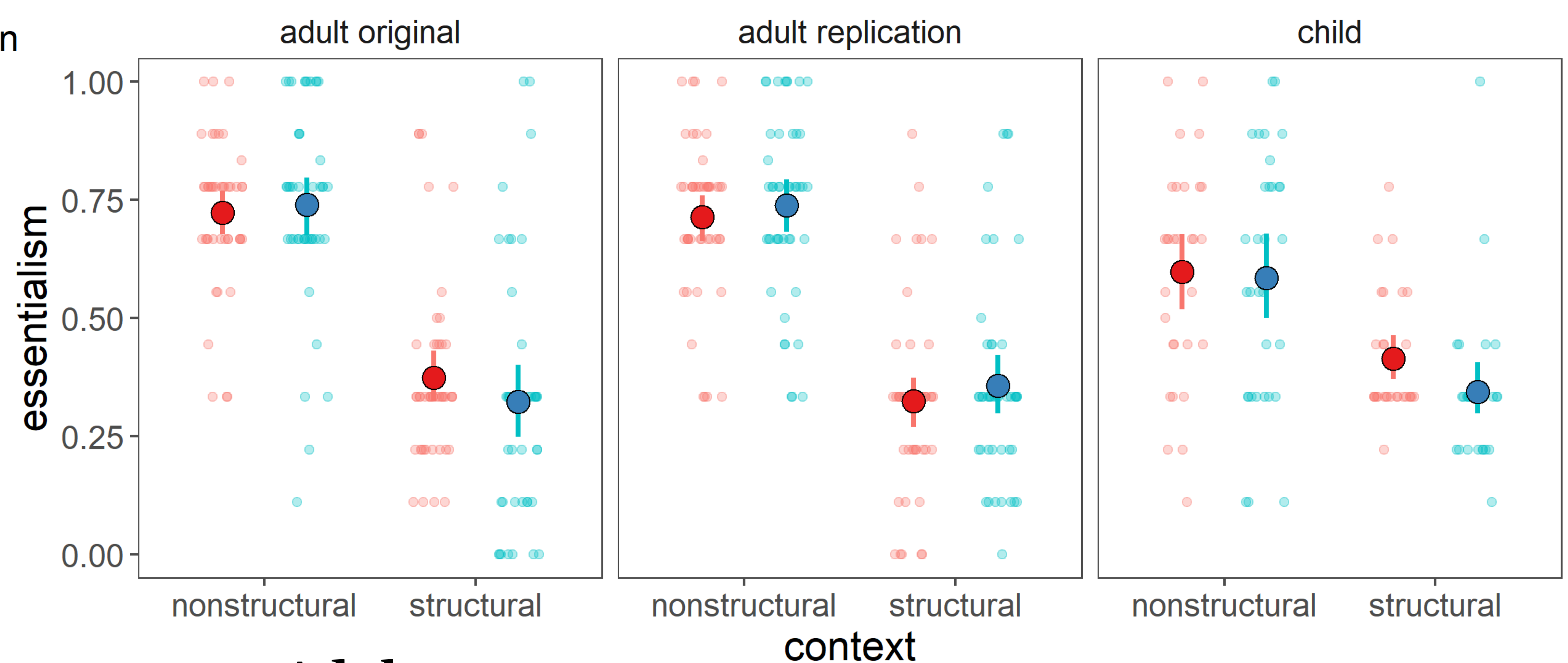
Adults
Contrary to predictions, formal explanations had no effect on essentialism, and no interaction with context.
As predicted, information about a structural context reduces essentialism.

Children
Data collection still ongoing (n=123/192). So far, roughly similar to adults.

Discussion

Information about structural context…
- powerfully tempers essentialism (Vasilyeva et al, 2018)
- may be so strong here that subsequent formal explanations are interpreted in whatever construal the context already established

Contrary to prior work (Muradoglu et al, 2019), formal explanations do not consistently lead to essentialism.

Future questions

- Could information about a structural context block the essentialist effects of other types of language (e.g. generic statements)?
- What overhypotheses do children bring to bear on interpreting formal explanations?
- How do children naturalistically learn subtle information about structural context?