

Preschool children reason about third-party goals when evaluating acoustic environments

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Background

- **Children as flexible learners**
 - Learning flexibility in children includes:
 - Adjusting attention to stimuli that is learnable (Gerken et al., 2011; Kidd, 2011)
 - Using emotional expressions as cues for novel object exploration (Wu & Gweon, 2021)
 - Reasoning about environmental structure and goals to determine approach strategies (Meder et al., 2021)
- **Background noise and learning**
 - Acoustic noise is ubiquitous
 - Repeated noise exposure influences learning and development in critical ways:
 - Reduces speech perception and word recognition (Klatte et al., 2013; Bjorklund et al., 1990)
 - Decreases word learning (McMillan & Saffran, 2016)
 - Impinges on already limited cognitive resources for adaptive strategy building (Loh et al., 2022)
- **(Ecological) Active learning**
 - Traditional active learning:
 - Learners interact with individual stimuli within their environment (Settles, 2009)
 - Accurate stimuli labeling is a primary goal
- **Environmental selection**
 - Learners preferentially select acoustic environments that align with a set of goals
 - Emphasizes acoustic information
 - Goal-directed
 - Addresses variabilities across environments

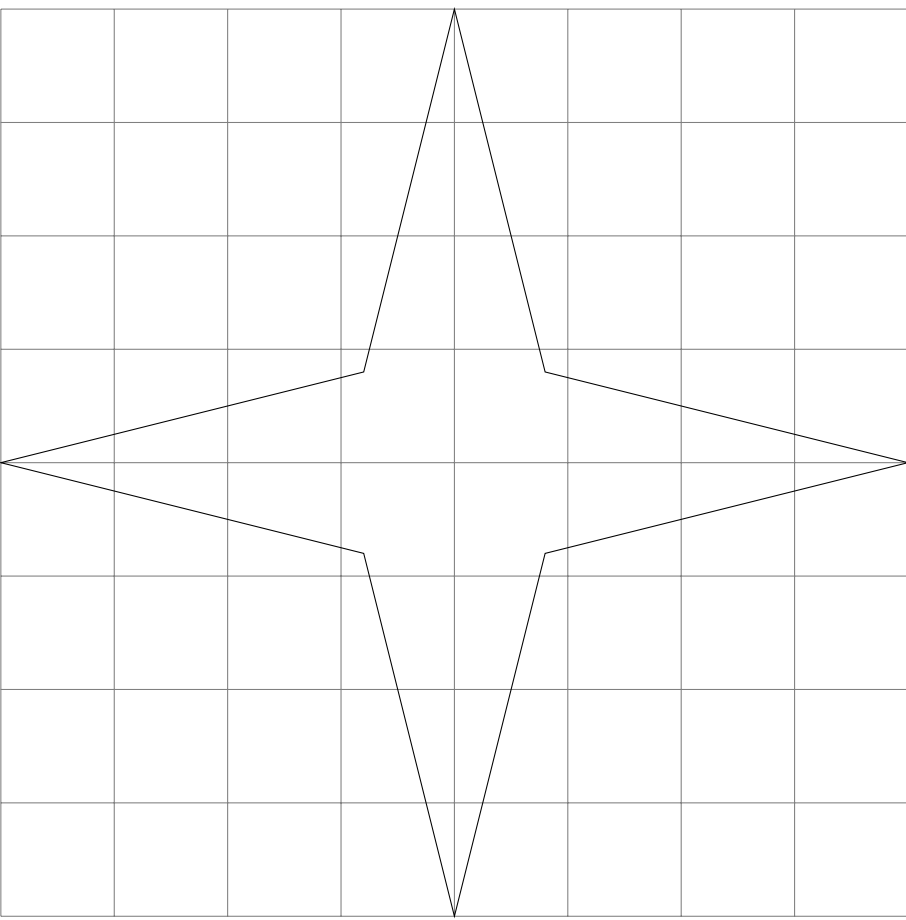


Figure 1. A figure caption.

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Background: Metacognition

Nam vulputate nunc felis, non condimentum lacus porta ultrices. Nullam sed sagittis metus. Etiam consectetur gravida urna quis suscipit.

- **Mauris tempor** risus nulla, sed ornare
- **Libero tincidunt** a duis congue vitae
- **Dui ac pretium** morbi justo neque, ullamcorper

Eget augue porta, bibendum venenatis tortor.

Research question

A highlighted block

- **Fusce dapibus tellus** vel tellus semper finibus. In consequat, nibh sed mattis luctus, augue diam fermentum lectus.
 - **In euismod** curat metus non eu. Vestibulum luctus curae in nisi condimentum et sollicitudin.
- rylanschaeffer.github.io

Methods

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Activity Label	
Dance	Dance
Read	Read
Sleep	Sleep
Talk	Talk

Table 1. A table caption.

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2. **Cras vehicula blandit urna ut maximus**. Aliquam blandit nec massa ac sollicitudin. Curabitur cursus, metus nec imperdiet bibendum, velit lectus faucibus dolor, quis gravida metus mauris gravida turpis.
3. **Vestibulum et massa diam**. Phasellus fermentum augue non nulla accumsan, non rhoncus lectus condimentum.

Fusce aliquam magna velit

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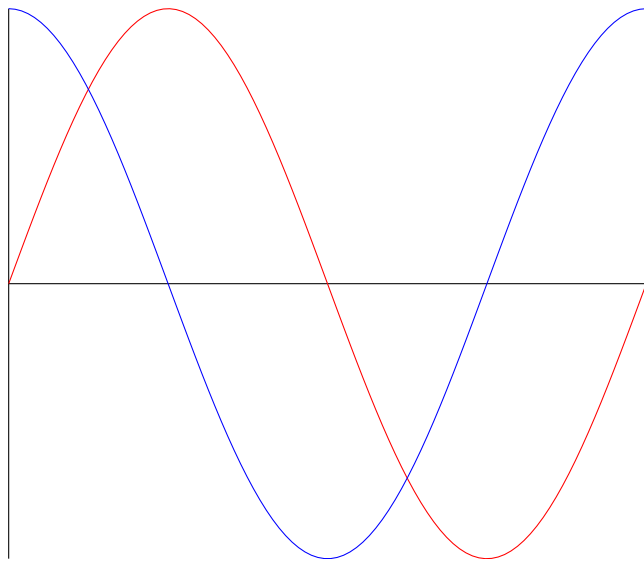


Figure 2. Another figure caption.

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 - Fusce ornare dignissim nisi. Nam sit amet risus vel lacus tempor tincidunt eu a arcu.
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- **Sed luctus, elit sit amet** dictum maximus, diam dolor faucibus purus, sed lobortis justo erat id turpis.

A block containing some math

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$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}$$

Interdum et malesuada fames $\{1, 4, 9, \dots\}$ ac ante ipsum primis in faucibus. Cras eleifend dolor eu nulla suscipit suscipit. Sed lobortis non felis id vulputate.

A heading inside a block

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Another heading inside a block

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First column	Second column	Third column	Fourth
Foo	13.37	384,394	α
Bar	2.17	1,392	β
Baz	3.14	83,742	δ
Qux	7.59	974	γ

Table 2. A table caption.

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References

- [1] Claude E. Shannon.
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