

The Baby Books Project

Can Infants Learn New Words from Picture Books?

Jeanne Shinskey, Jessie Ricketts & Amber Muhinyi



Why This Research Matters



A Critical Gap

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Declining Habits

Fewer parents read daily with toddlers now than 5 years ago. 20-40% of UK children start school without essential language skills.

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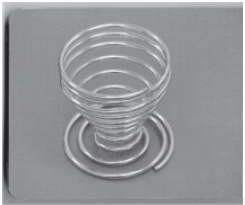
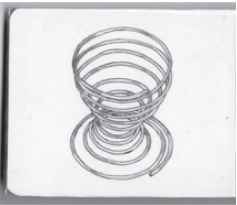
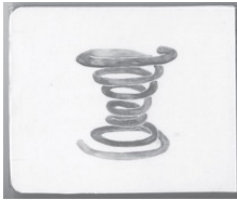
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Symbolic Challenge

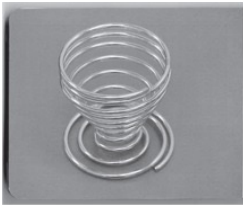
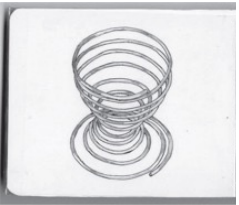
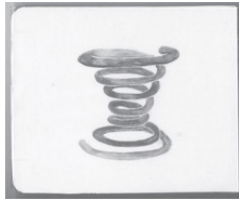
Babies don't yet understand that pictures represent real objects - a key hurdle for learning from books.

What Previous Research Tells Us

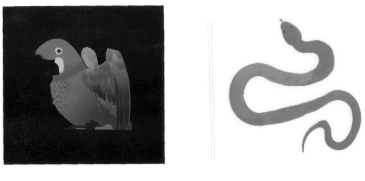
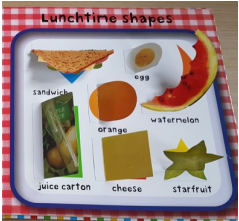
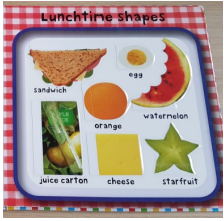
	Photo	Drawing	Cartoon
“Blicket”			

Picture Realism: More realistic images *help* word learning and generalisation from pictures to real-world objects from 15-18 months (Ganea et al., 2008)

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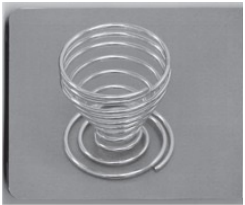
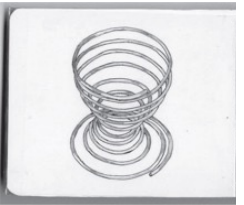
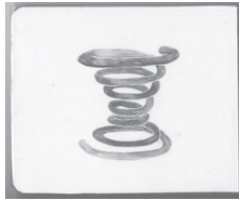
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	Manipulative	Non-manipulative
“Parrot”		
“Carambola” (starfruit)		

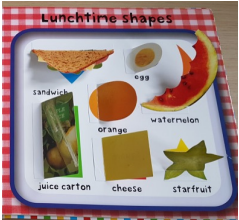
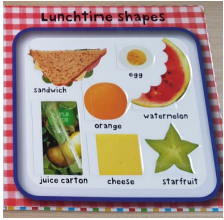
Sensory Features: Pop-ups, pull-tabs, and flaps *hinder* word learning and generalisation from pictures to 3D objects (18-25 months; Tare et al., 2010; Shinskey, 2020)

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The Gap: No studies tested touch-and-feel textures, or compared lab vs. home learning over time

Our Two Hypotheses



Picture Realism Hypothesis

Babies will learn new words **better from photos** than drawings, because photos more closely resemble real-world objects.

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We tested both hypotheses across two studies: one in the lab (Study 1, 48 babies, 14–20 months) and one at home over 6 weeks (Study 2, 135 families with 16-month-olds).



Touch-and-Feel Hypothesis

Babies will learn new words **better from untextured books**, because sensory features may distract from the book's symbolic meaning.

Study 1: Animal Word Learning in the Lab

Participants

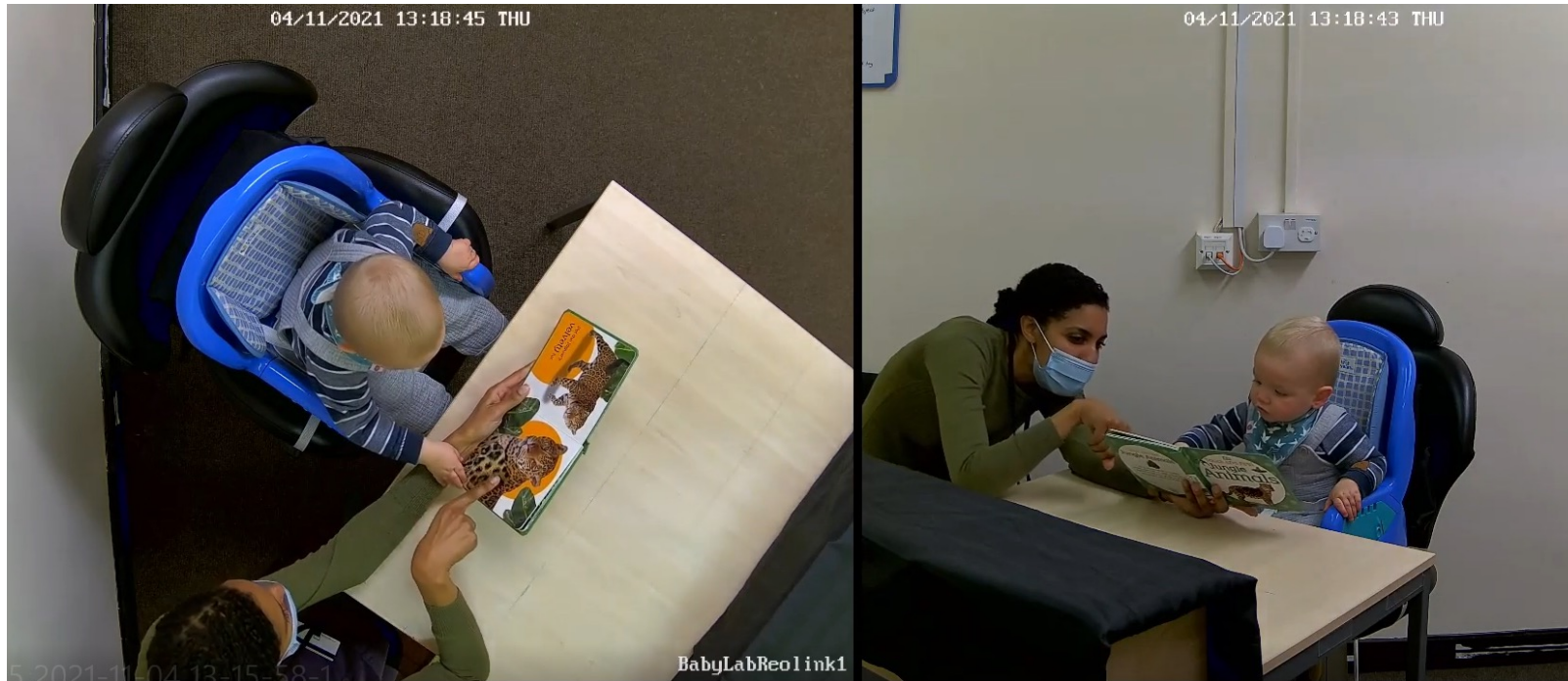
- 48 babies aged 14–20 months
- Half saw textured touch-and-feel book
- Half saw same book without texture



Study 1: Animal Word Learning in the Lab

Method

- A researcher "read" a jungle animal book, teaching a made-up word ("mip") for one animal 12 times.



Study 1: Animal Word Learning in the Lab

Measuring Word Learning



Photo Recognition	Photo Generalisation	Drawing Generalisation	Mini Object Generalisation	Soft Toy Generalisation
				
				

Study 1: Animal Word Learning in the Lab

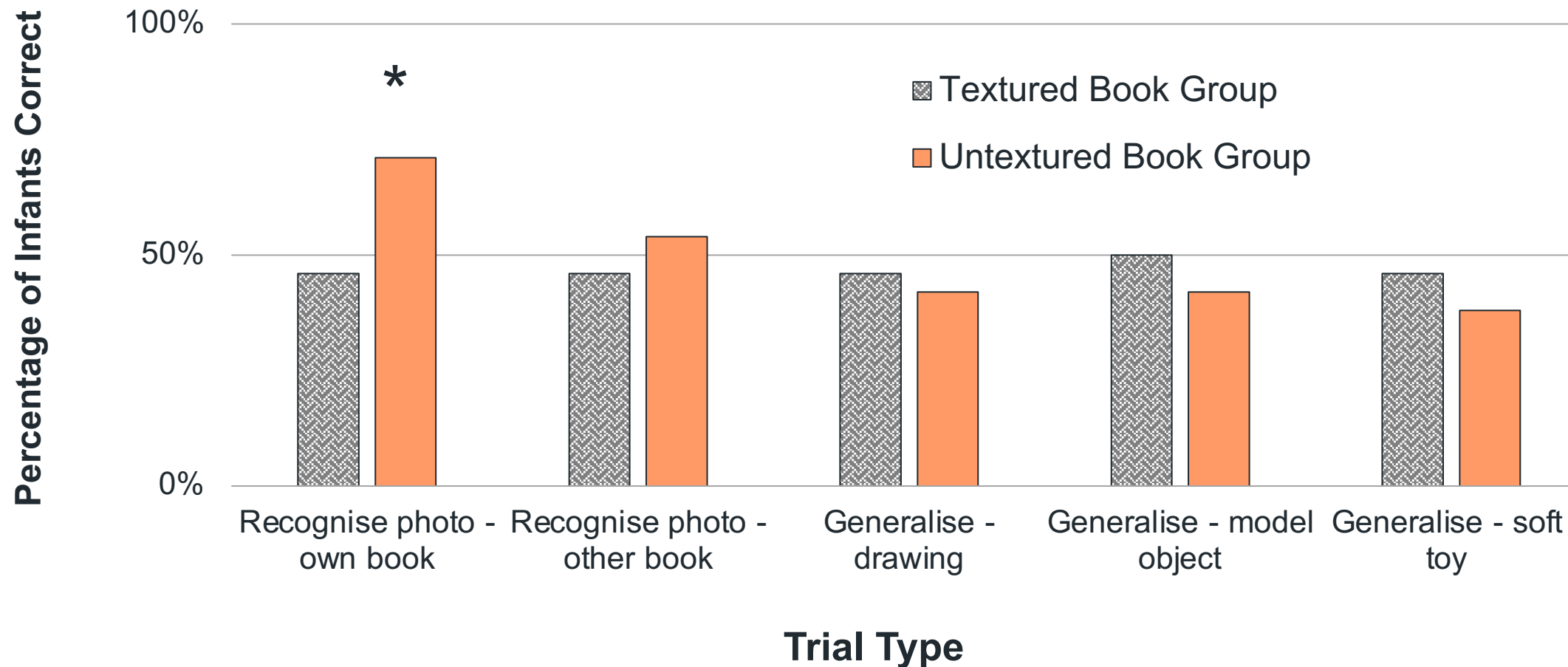
Video Examples of Two Trial Types

- Photo Recognition
- Mini Object Generalisation



Study 1: Animal Word Learning in the Lab

Results: *Word Learning*



Study 1: Animal Word Learning in the Lab



Results: *Engagement*

Were babies more engaged by touch-and-feel book?

- *Availability* (e.g., attention): No difference
- *Affect* (e.g., smiling): No difference
- *Active Participation* (e.g., vocalising, touching the book): *Trend* towards more with touch-and-feel book

Study 2: Clothing Word Learning over 6 Weeks at Home



Methods

- 16 mo (n = 135)
- 4 experimental groups
- 1 control group
- Parents shared book with baby 3x/wk x 6 wks
 - Measured engagement each time



		Texture Presence	
		Untextured	Textured
Picture Type	Photos		
	Drawings		

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Methods

- 16 mo (n = 135)
- 4 experimental groups
- 1 control group
- Parents shared book with baby 3x/wk x 6 wks
 - Measured engagement each time
- 4 unknown clothing words (apron, veil, tutu, cape) vs unlabelled distractors
- Learning tested with pictures, objects, parent report

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Study 2: Clothing Word Learning over 6 Weeks at Home

Measuring Word Learning			
Picture Recognition Own Book	Picture Generalisation Other Book	Object Generalisation Same Colour	Object Generalisation Different Colour
			
			
			

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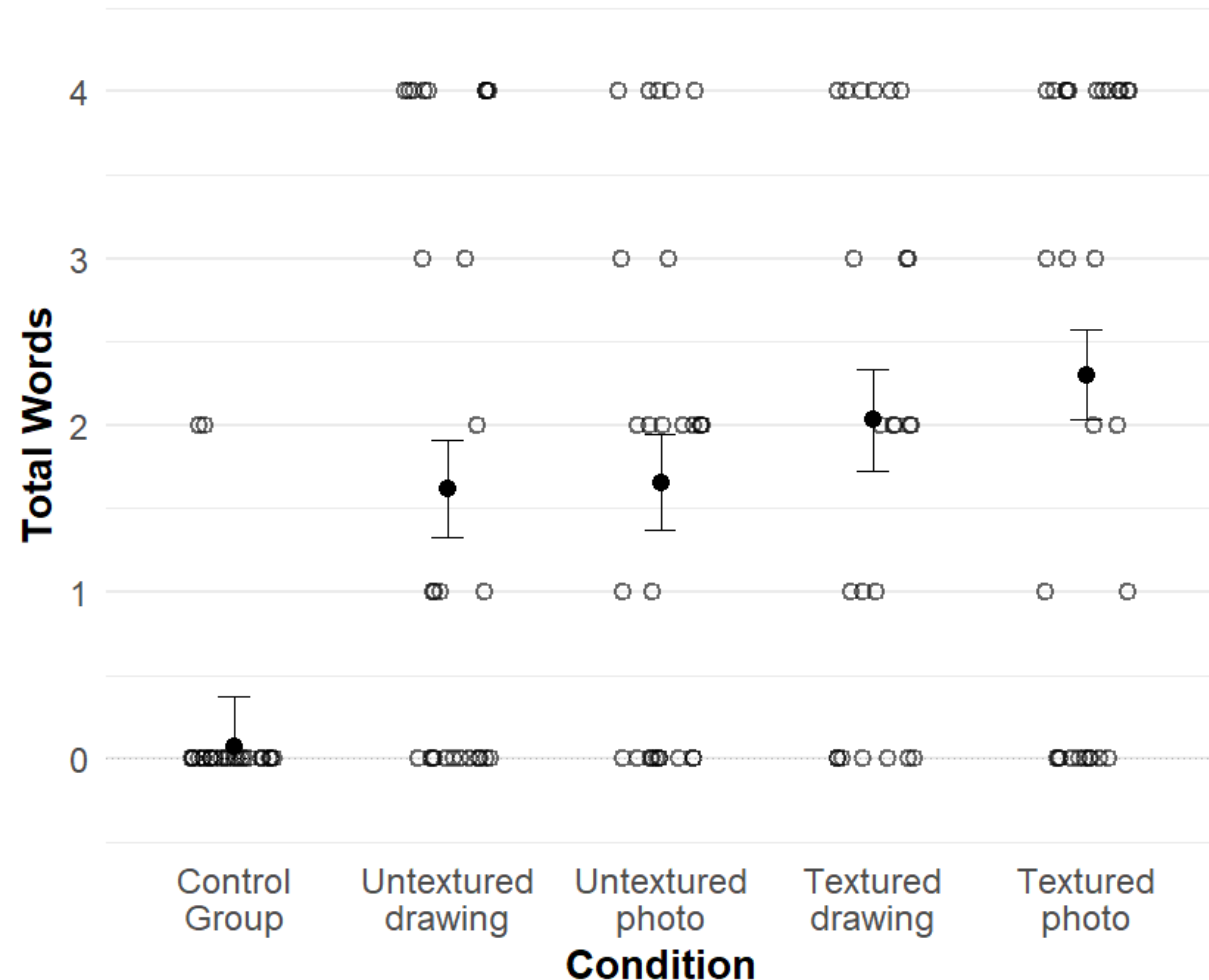
Video Examples of 3 Trial Types



Study 2: Clothing Word Learning over 6 Weeks at Home

Results: Parent Report (n = 134)

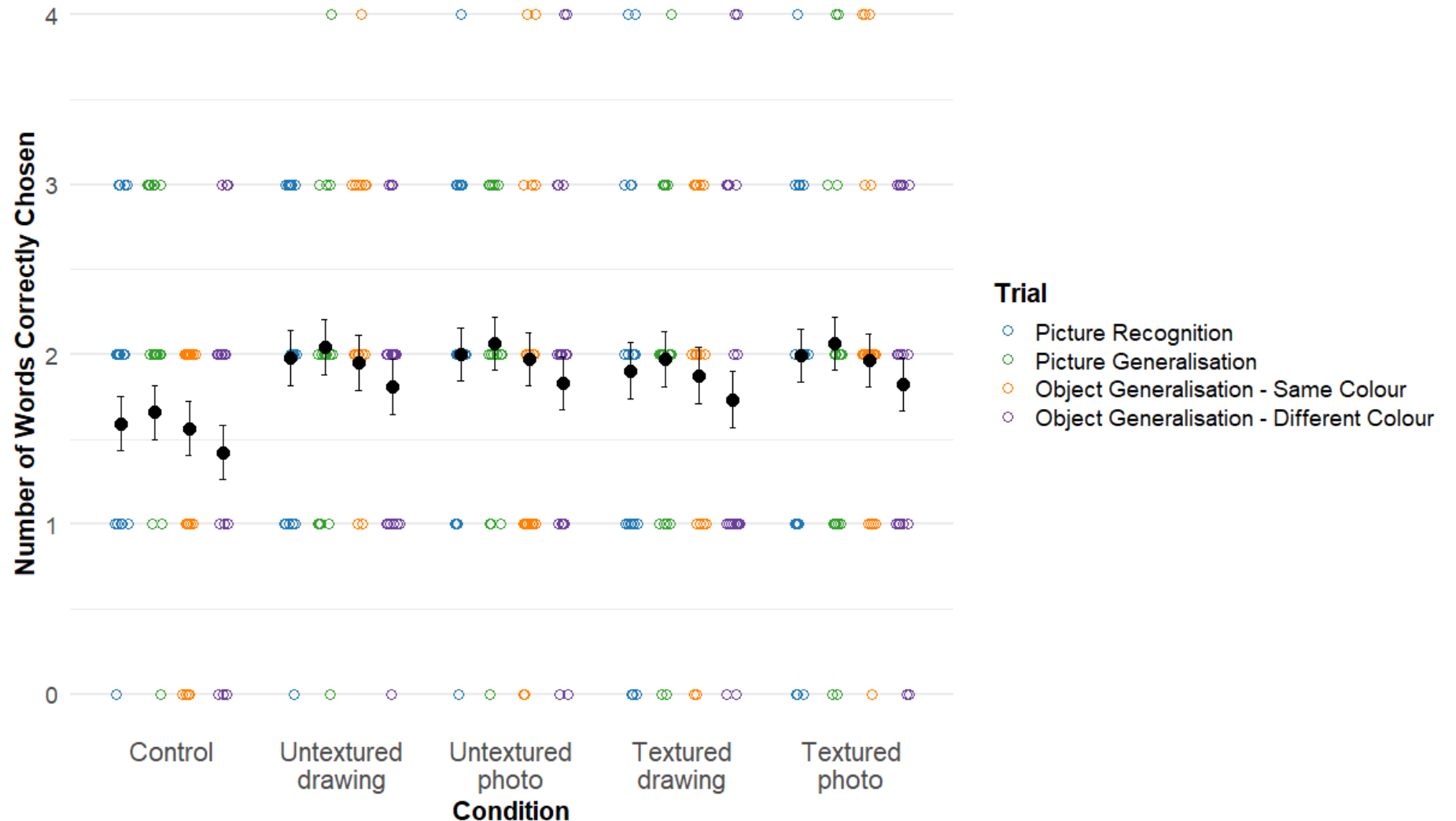
- All experimental groups reported more words learnt than those in control group



Study 2: Clothing Word Learning over 6 Weeks at Home

Results: Babies' Responses (n = 106)

- 2-3 experimental groups learned more words than control group (not textured-drawing)
- Trend towards home literacy scores correlating with learning



Study 2: Clothing Word Learning over 6 Weeks at Home



Differences within Experimental Groups Only

Hypothesis / Factor	Parent Report	Infant Response
Picture Realism: Not supported	Photos = Drawings	Photos = Drawings
Touch-and-Feel: Not supported	Trend for Textured > Untextured	Textured = Untextured
Home Literacy Environment	—	Positive correlation
Age	—	Positive correlation

Study 2: Clothing Word Learning over 6 Weeks at Home

Infant Engagement

- *Trend* toward Textured > Untextured
- No difference between Photos vs. Drawings

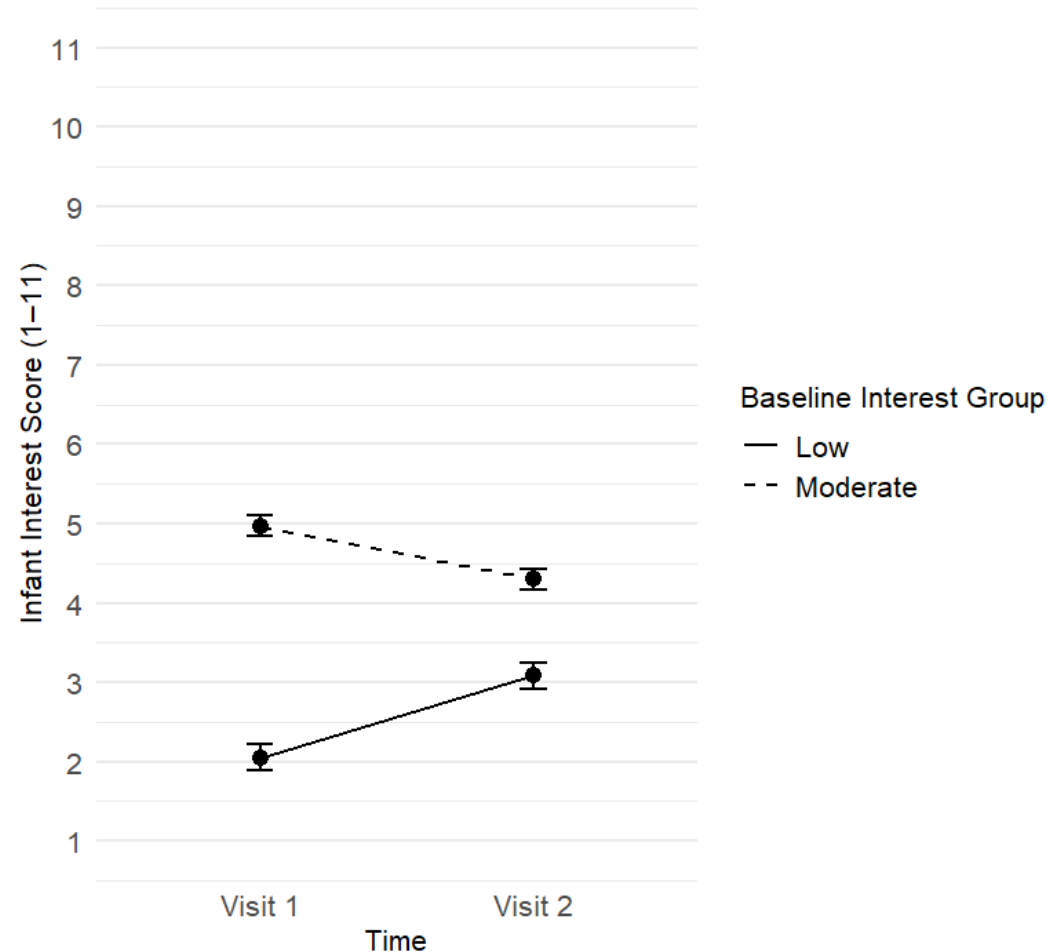


Study 2: Clothing Word Learning over 6 Weeks at Home

Babies' Interest and Parent Confidence: Unexpected Wins

Infant Interest

- Those less interested in books at the start showed increased interest by the end
 - especially those with low initial interest

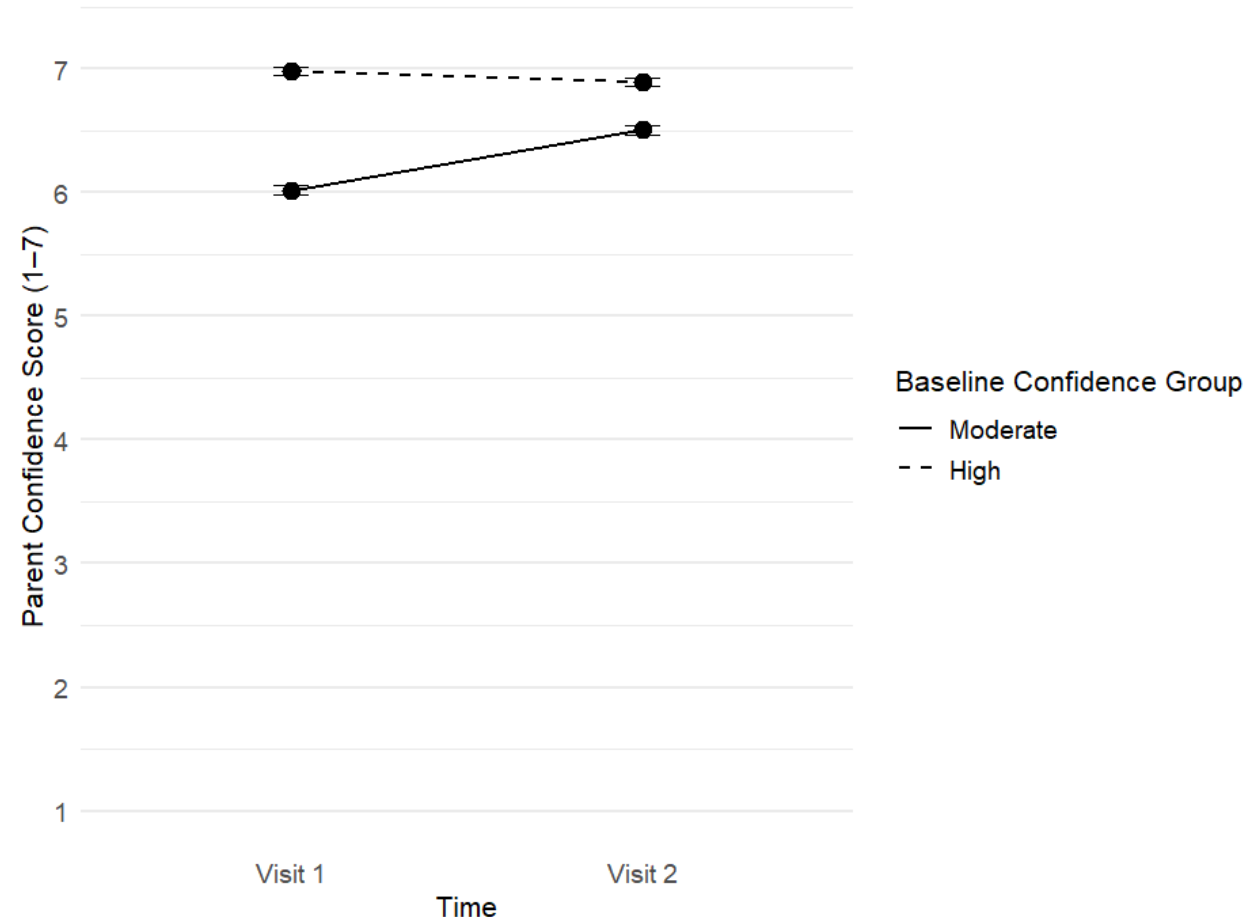


Study 2: Clothing Word Learning over 6 Weeks at Home

Babies' Interest and Parent Confidence: Unexpected Wins

Parent Confidence

- Those who started with less confidence reported significantly higher confidence after the 6-week structured reading routine.



Research & Practical Implications



For Researchers

- **Naturalistic designs matter:** Lab and home findings diverged - texture hindered learning in the lab but may have helped at home.
- **Use multiple measures:** Parent reports and lab tests capture different aspects of learning.

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For Practitioners

- **Choose textured books** to sustain engagement, especially for babies without a reading routine.
- **Realistic drawings work as well as photos** for teaching words.
- **Use reading diaries** to build consistent book-sharing habits.
- **Establish routines** - even a few minutes at nap or bath time boosts confidence and interest.

Conclusion



Babies can learn new words from first-word books, and textured books may support both engagement and learning over time.

Lab vs. Home

Texture hindered learning
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Routine Matters

Structured book sharing boosts babies' interest and parents' confidence, building lifelong reading habits.

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