



Do babies learn words from 'first words' picture books?

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@BabyBooksProj

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Research and Practice Event



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- Many infants are read to from first few months of life (e.g., Karrass & Braungart-Rieker, 2003; Niklas et al., 2016)
- Wide variety of “**first words**” **picture books** aimed at infants - some with special features (e.g., lift-the-flap, “touch and feel”)

Can infants learn new words from picture books and transfer this knowledge to the real world?



Picture-book reading with infants



Infants may struggle to learn from picture books...

Some picture-book features may hinder learning (Ganea et al., 2008; Shinsky, 2020)



Immature symbolic insight (e.g., DeLoache et al., 2003)



- **Picture realism** – drawings and cartoons (vs. photographs) negatively affected word learning in 15 and -18-mo-olds (Ganea et al., 2008)
- **Manipulative features** (e.g., pop-up) negatively affected word learning in 20-mo-olds and 30-36 mo-olds (Tare et al., 2010)
- **Lift-the-flap features** negatively affected word learning in 2-year-olds (Shinsky, 2020)



→ Manipulative features may hinder infants' word learning from picture books – increases tendency to regard books as objects/toys

“Touch and feel” first-words picture books



- Tactile feature on page – infant encouraged to touch and feel
- Often mimics a property of the real-world referent (e.g., fur)
- Very popular

→ **Not yet systematically studied in relation to infant word learning**

Aims of the present study...



- To investigate the role of “touch-and-feel” features in infants’ word learning from picture books
- To assess whether manipulative features impede infants’ word learning from picture books (Shinskey, 2020; Tare et al., 2010)



- Infants will show poorer learning of **novel labels** for real-world objects from “touch-and-feel” books than standard books, because **tactile features will hinder their symbolic insight** by increasing the bias to regard books as toys

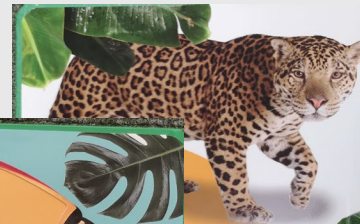


- 48 monolingual infants, aged 14-22 months
- Infants randomly assigned to **textured** or **non-textured** book condition
- Experimenter reads infant book x2, naming target (x6 per reading) but not distractor
- **Word learning** and **generalisation** tested after reading
- Rated infant engagement during book reading from videos

Picture-book stimuli



- A commercially available “touch-and-feel” babies’ picture book
- Created a “standard” version (i.e., no tactile features)
 - Two books, matched on all picture-book features except feature under investigation
 - Controls for picture realism





- One target and one distracter animal; two other animals neither targets nor distractors
- Target/distracter animal names unfamiliar to infants (*toucan and jaguar*)
- Named target animal using non-word, "mip"
- Target and distracter counterbalanced across book type and participants



- E reads each book twice, encouraging infant to look at (and touch in the touch and feel book) the animal on each page
- E labels target animal (e.g., *look at the mip!*) x6 per reading
- Comments on the distractor animal x6 (without naming it) per reading

Book reading



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- After reading session, infants tested on:
 - Picture recognition – *can infant **choose** target from 2 images (target + distracter) identical to those in picture book*
 - Generalisation
 - To other type of picture-book picture (e.g., touch and feel or non touch-and-feel image, depending on book exposure)
 - To mini replica objects (model toys)
 - To soft toys
- Score each trial: whether or not infant correctly chooses target (1 or 0)

Example: Generalisation to mini-replica objects



Model toys:



Experimenter: *Where's the mip?*

Example: Generalisation to soft-toy objects



Soft toys:



Experimenter: *Where's the mip?*

Generalisation to soft-toy objects



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Generalisation to soft-toy objects



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- Plot performance (proportion of correct responses) by book type for each trial; assess whether above chance
- Run statistics to assess:
 - Whether book type affected word learning (picture recognition) or generalisation (to other picture, extension to model toy, extension to soft toy)
 - Role of infant engagement during book reading, existing vocabulary skills, and age in performance



- So far... 60 participants (14 piloting, 12 data loss)
- Picture recognition trial:
 - 14/19 (73%) infants chose the target (picture recognition) in the non-textured book condition
 - 8/16 (50%) infants chose the target (picture recognition) in the textured-book condition

Data collection in progress...





- To contribute to our knowledge of symbolic development and learning from picture books
- May be useful for early years practitioners engaged in word learning interventions
- Can inform parents and publishers about potential benefits of different types of books

Discussion



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Thanks for listening

