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# Adults construct their representation of pain in babies cries with experience

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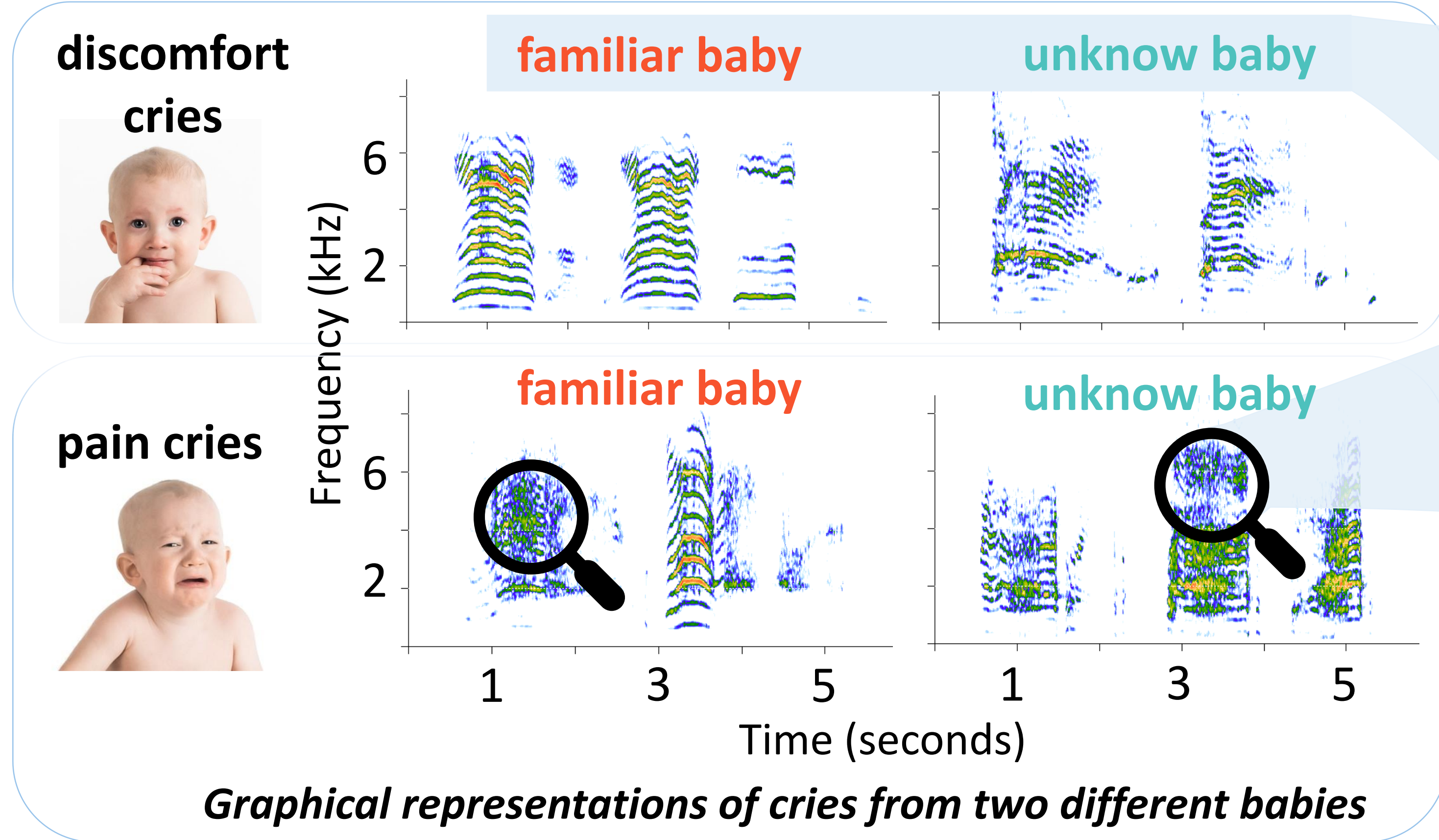
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## Background: babies cries convey information through acoustic differences



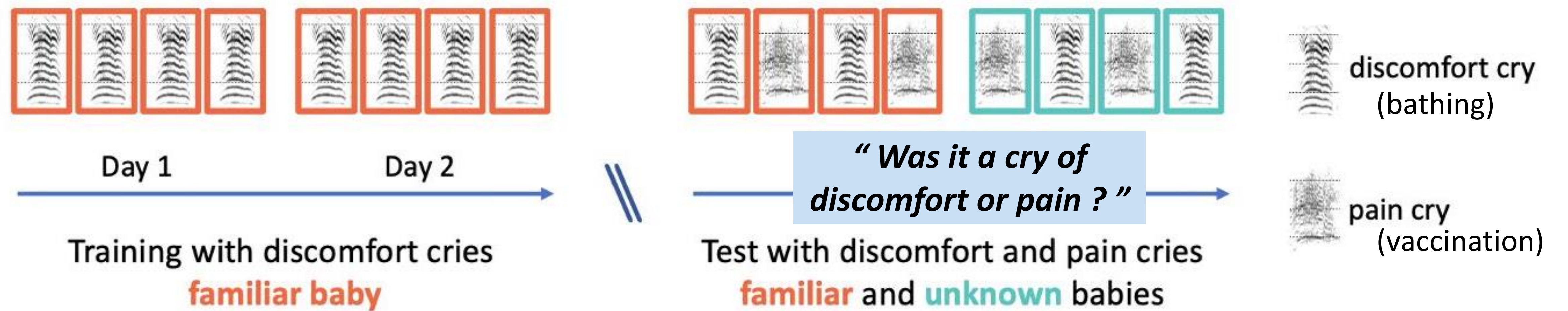
**Individual characteristics**  
**Familiar babies** are recognized by parents<sup>1</sup> and non-parents<sup>2</sup>  
*Experience and exposure improve this ability*

**Emotional and physiological state**  
 Pain cries are longer, louder, harsher and rougher  
 Parents identify a pain state by listening to their baby's cries<sup>3</sup>

*Does an individual's experience to take care of babies and familiarity with a given baby improve caregivers' ability to recognize pain in cries ?*

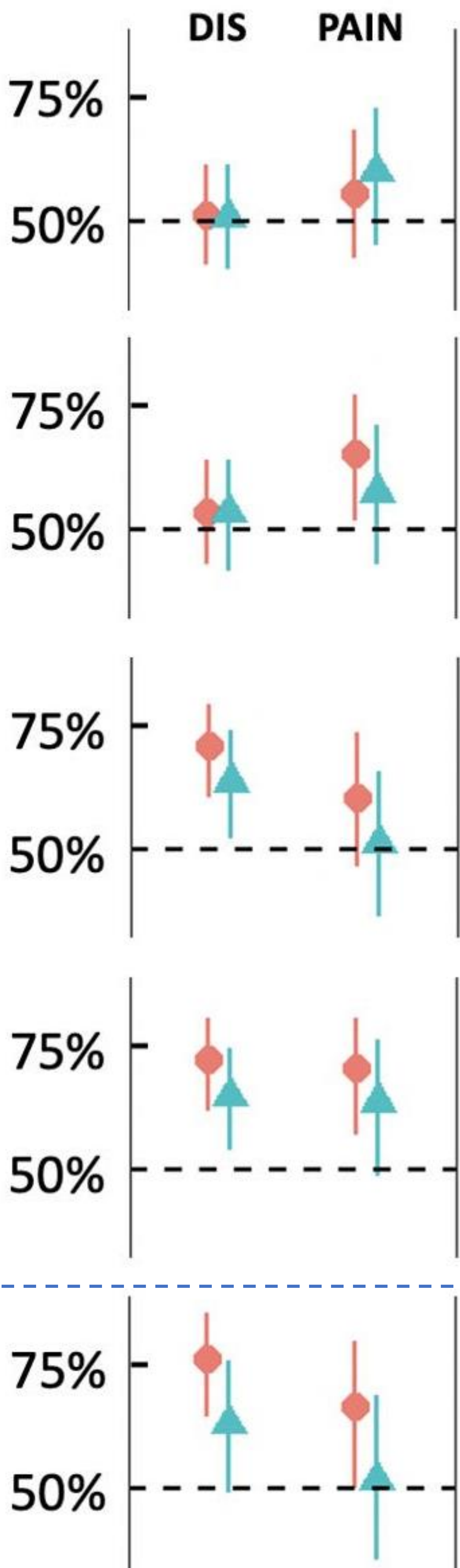
## Experimental design

Online experiment  
 234 participants (133 women) with various experience in babies care



## Context recognition accuracy

Bayesian mixed model



## Ability to identify cries context

Poor recognition of cries context  
 Effective recognition of pain cries for a familiar baby  
 Effective recognition of cries context for a familiar baby and of bath context for an unknown baby  
 Effective recognition of cries context for both a familiar and an unknown baby  
 Effective recognition of cries context for a familiar baby and of bath context for an unknown baby

**DIS** discomfort cry  
**PAIN** pain cry  
 50 % = chance level for context recognition (discomfort or pain)

## Conclusion

Previous **experience** with babies **facilitates** the correct **identification** of acoustic features coding for pain in baby cries.  
 Only **parents with younger babies** were able to **generalize** and identify crying contexts for an unknown baby, even professional caregivers were not.

Want to give it a try ?  
 Scan the QR code to test a short version of the experiment.

