

The Influence of Prenatal Language Exposure on The Melody of Infant Vocalisations: A Systematic Review



Universiteit Utrecht



NWO VI.C.201.109

Elanie van Niekerk, Caroline Junge, Aoju Chen
e.a.vanniekerk@uu.nl



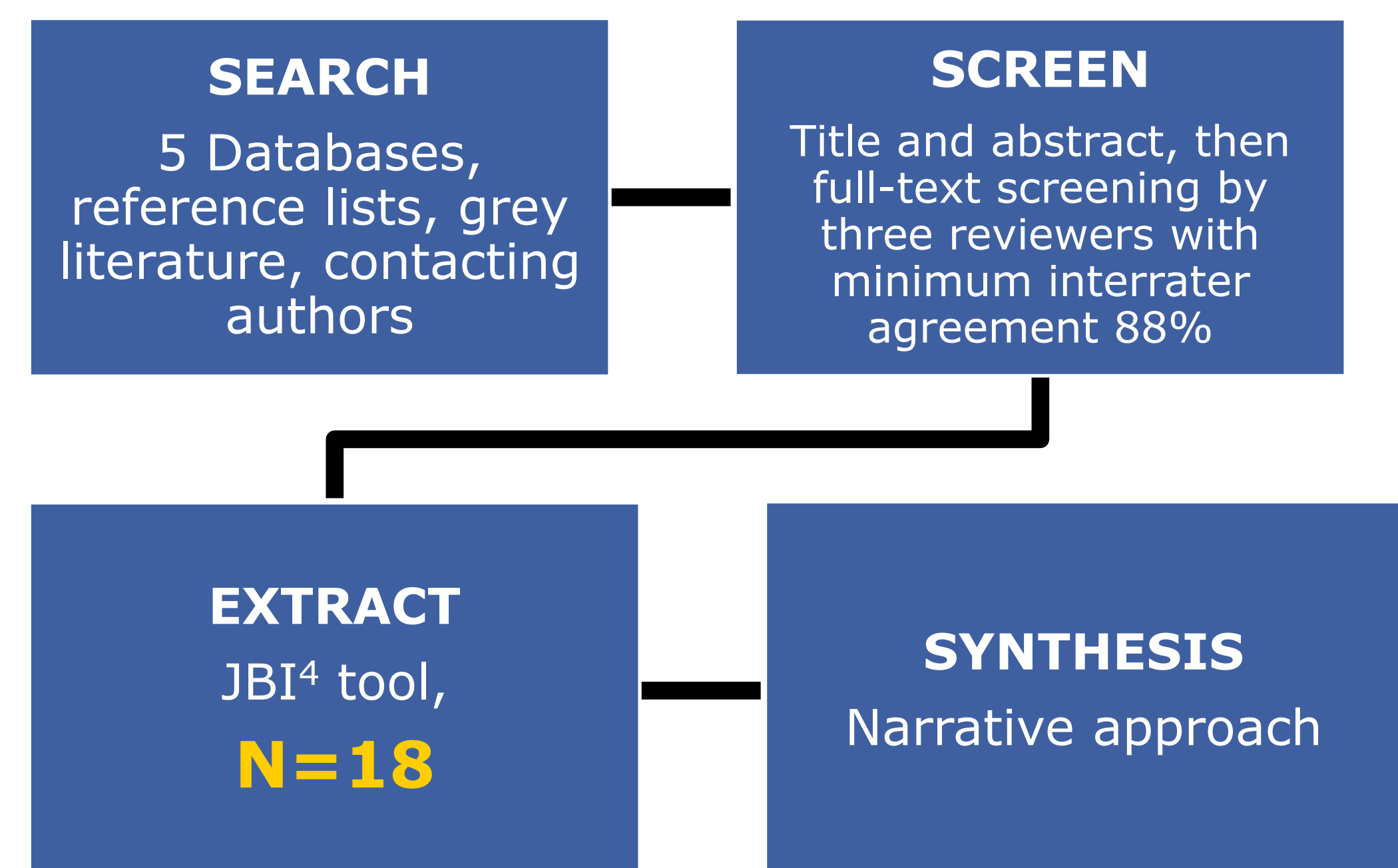
1 INTRODUCTION

- ❖ Convergence of evidence that early speech perception skills have a prenatal origin^{1,2}
- ❖ Little information about early production skills

Is the prosody of infants' early vocalisations influenced by prenatal exposure to the prosody of their native language?

2 METHOD

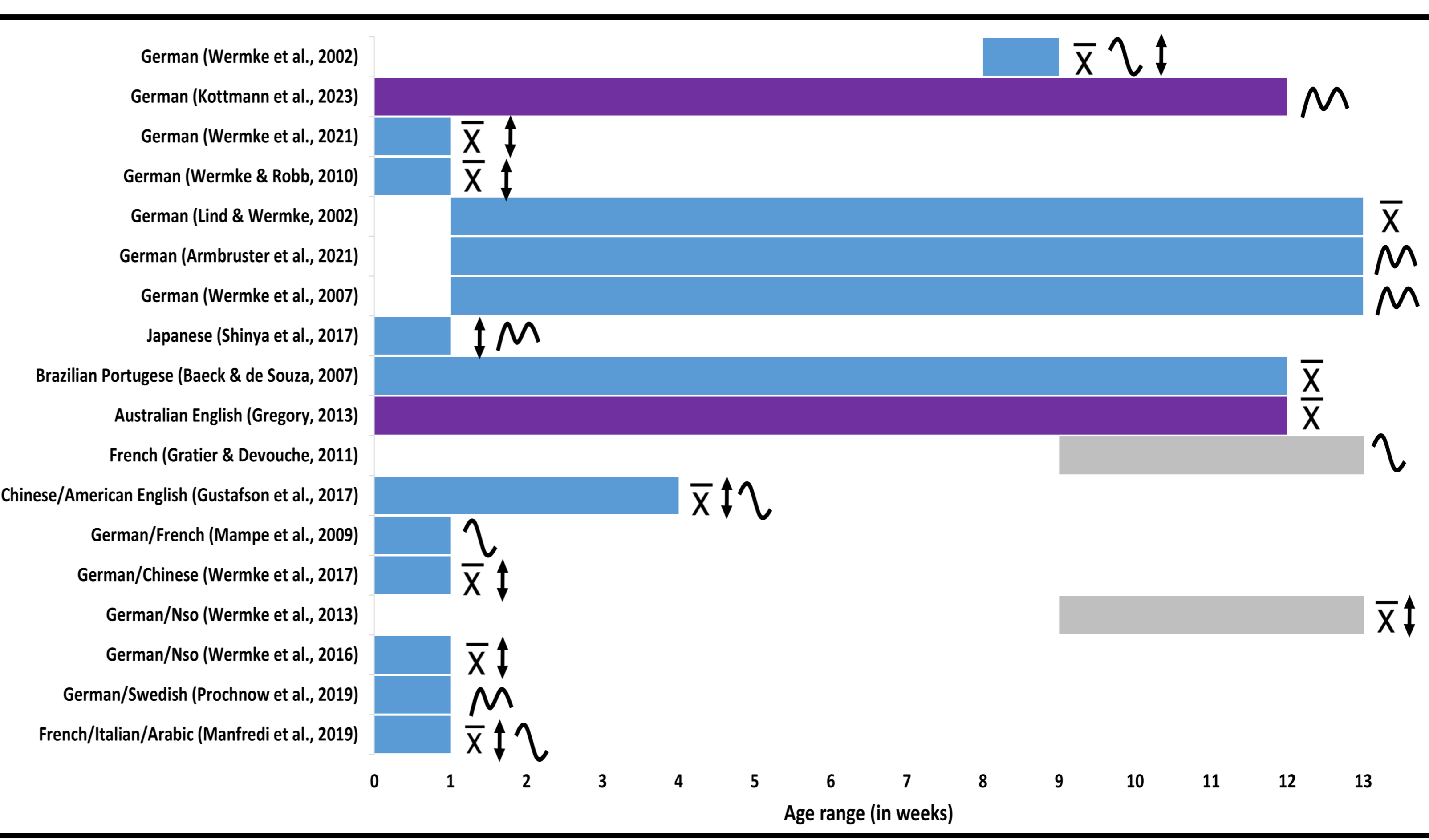
- ❖ Production studies analyzing pitch patterns of vocalisations of healthy, monolingual infants aged 0-3 months



3 RESULTS

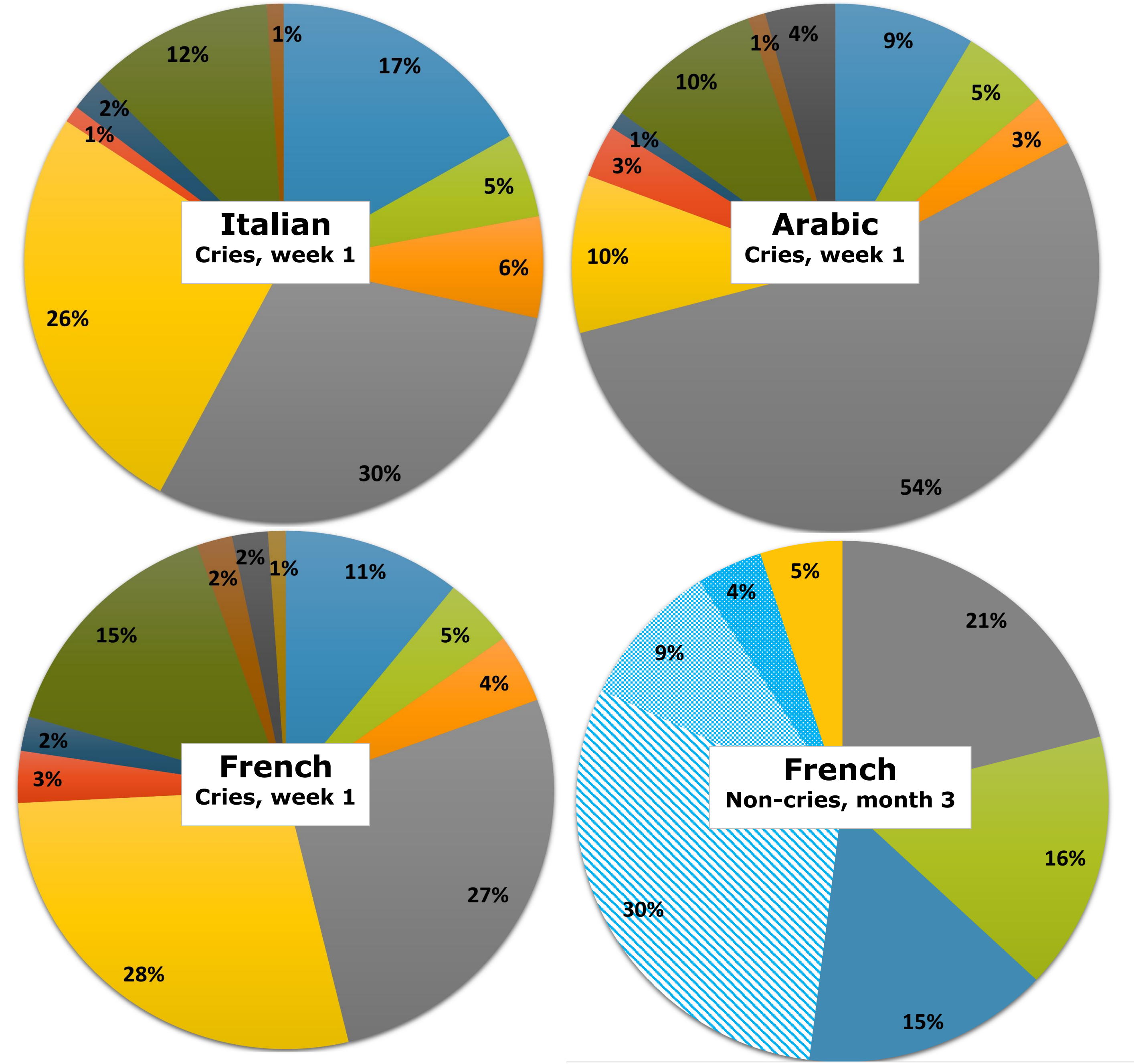
3.1 STUDY CHARACTERISTICS

Language, age, vocalisation type, f0 parameter analysed



\bar{x} F0 mean
↓ F0 static variation
M F0 contour complexity
~ F0 contour shape

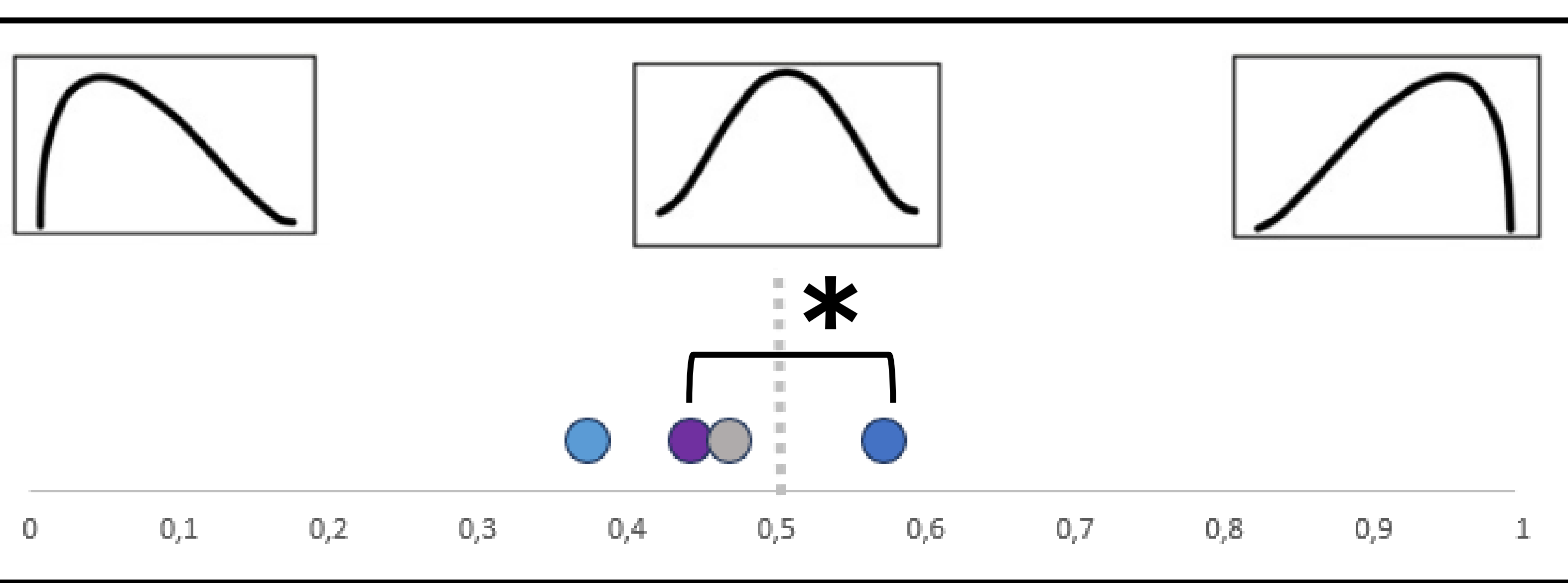
Categorical description of pitch contour shapes



- ❖ Large variation in analysis criteria used to determine pitch contour shape

3.2 PITCH CONTOUR SHAPE FINDINGS

Position of maximum pitch in time-normalized cry contours



American English German Chinese French

- ❖ Initial finding (Mampe et al., 2009) of German (falling) versus French (rising) infants' cry contours not replicated
- ❖ Cry contours of French infants more varied than initial finding

4 CONCLUSION

- ❖ Mixed evidence for cross-linguistic differences in pitch contour shape in infants aged 0-3 months
- ❖ Variation in how pitch patterns of early vocalisations are reported

5 RECOMMENDATIONS

- The field needs to:
- ❖ Report pitch parameters systemically and in congruent manners to tease apart how prosodic organization occurs within production
 - ❖ Increase focus on non-cries (as opposed to cries) and languages with diverse prosodic typologies
 - ❖ Make data publicly available