



The Effects of Maternal Singing on Emotional Closeness, Affect, and Interaction Dynamics

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Introduction

- Singing to an infant is a widespread caregiving practice that can facilitate caregiver–child communication and maternal affect regulation (Cirelli et al., 2020; Mehr et al., 2018).
- Although controlled research has demonstrated potential benefits for intimacy (de l’Etoile, 2006; Fancourt & Perkins, 2018), evidence from **everyday, naturalistic** environments remains limited.

Research Questions

Study 1

- Does maternal singing enhance mothers' **affect** and **perceived closeness**?

Study 2

- How does maternal singing shape **observable** interaction dynamics?





Methods



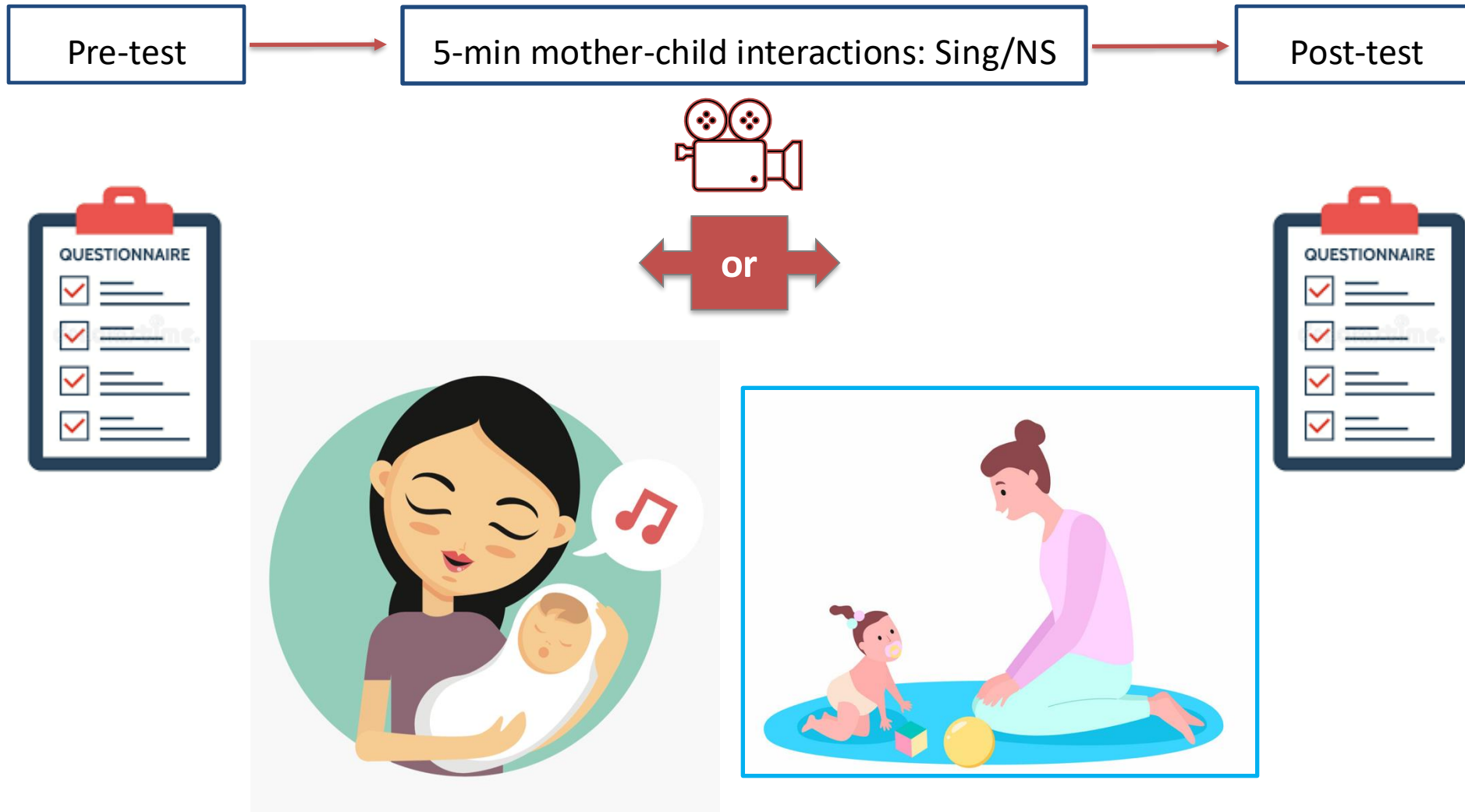
Study 1

- *Participants:*
 - 32 mothers (ages 22–44) from US, UK, and Europe
- *Design:*
 - Within-subjects; singing vs. non-singing sessions (1 week apart)
- *Measures:*
 - PANAS (affect) &
 - IOS (emotional closeness) **pre-** and **post-**interaction

Study 2

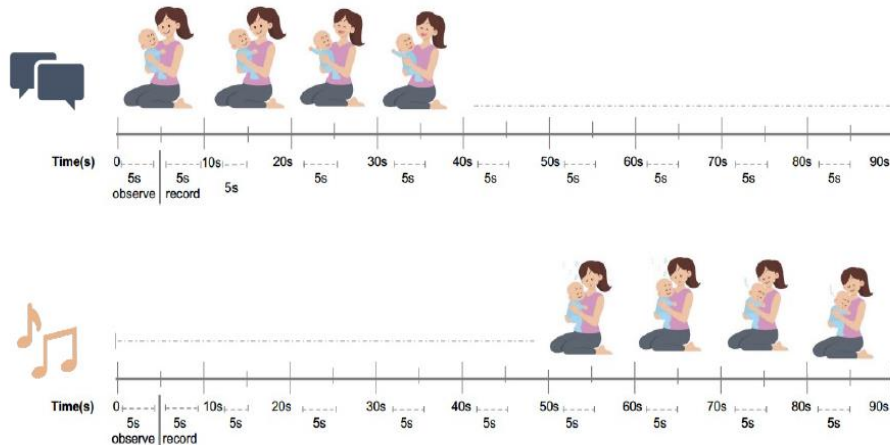
- *Participants:*
 - 28 mothers (subset from Study 1)
- *Data:*
 - Video recordings of mother–infant sessions
- *Coding Tool:*
 - Murray Global Rating Scale
- *Dimensions Rated:*
 - Eye contact, emotional expressiveness, maternal sensitivity, reciprocity

Design/Procedure – Week 1 & 2



Behavioural Coding – Time Sampling & Murray Global Rating

Time sampling method illustration for each condition



Mother-infant singing condition



Mother sings to infant.



Infant demonstrates a slight smile her.

Mother-infant speech condition



Mother animates some characters from a book

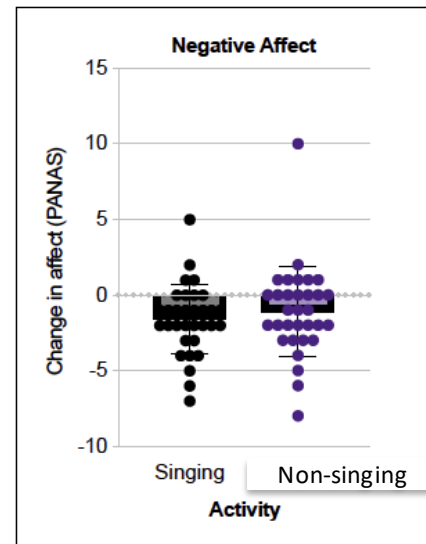
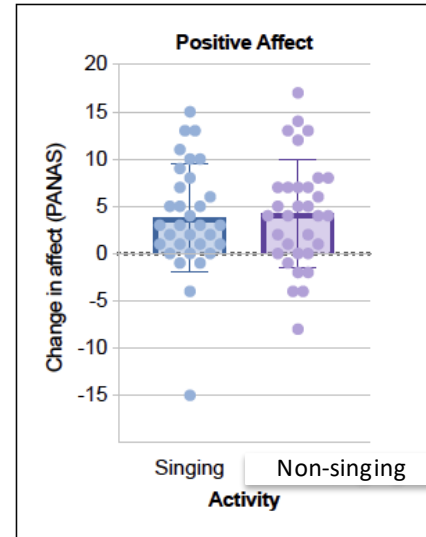


Infant looks at mother's eye.

No:	P.ID:	Age:	Sex: F/M	Session:1/2	Type of Interaction	Singing	Playing				
	Avoidance from parent/infant	Very poor		Poor		Neutral	Good	Very good		Good eye contact throughout	
Dimension	LOWEST	1	1.5	2	2.5	3	3.5	4	4.5	5	HIGHEST
Eye Contact	00:10	1	1.5	2	2.5	3	3.5	4	4.5	5	00:10
	00:20	1	1.5	2	2.5	3	3.5	4	4.5	5	00:20
	00:30	1	1.5	2	2.5	3	3.5	4	4.5	5	00:30
	00:40	1	1.5	2	2.5	3	3.5	4	4.5	5	00:40
	00:50	1	1.5	2	2.5	3	3.5	4	4.5	5	00:50
	01:00	1	1.5	2	2.5	3	3.5	4	4.5	5	01:00
	01:10	1	1.5	2	2.5	3	3.5	4	4.5	5	01:10
	01:20	1	1.5	2	2.5	3	3.5	4	4.5	5	01:20
	01:30	1	1.5	2	2.5	3	3.5	4	4.5	5	01:30

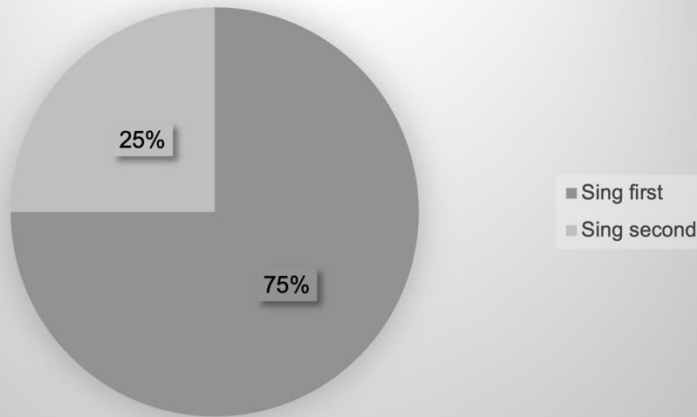
Key Findings – S1 : Self-report

- No significant change in affect or closeness

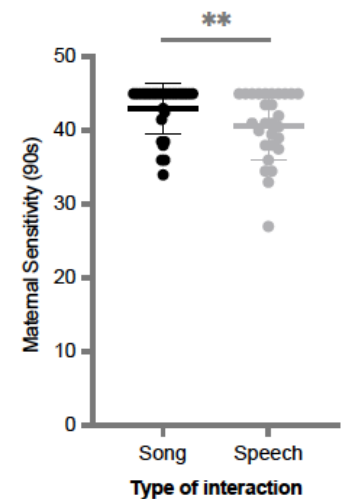
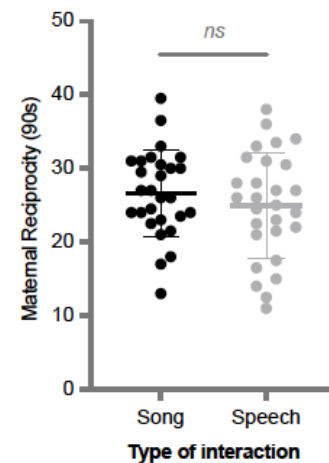
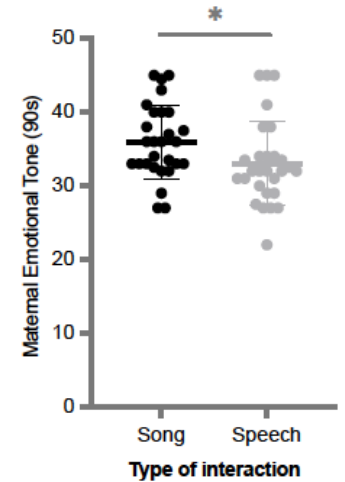
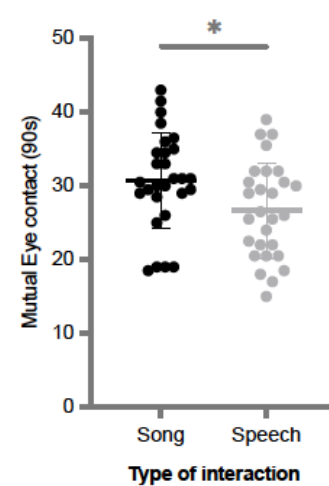
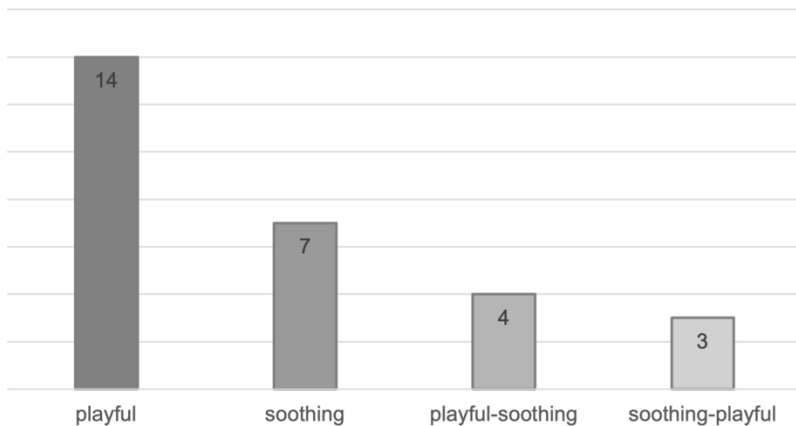


Key Findings S 2 – Observational Study

Mothers First Interactional Preference to Start the Study



Maternal Singing Styles



Implications for practice and policy development

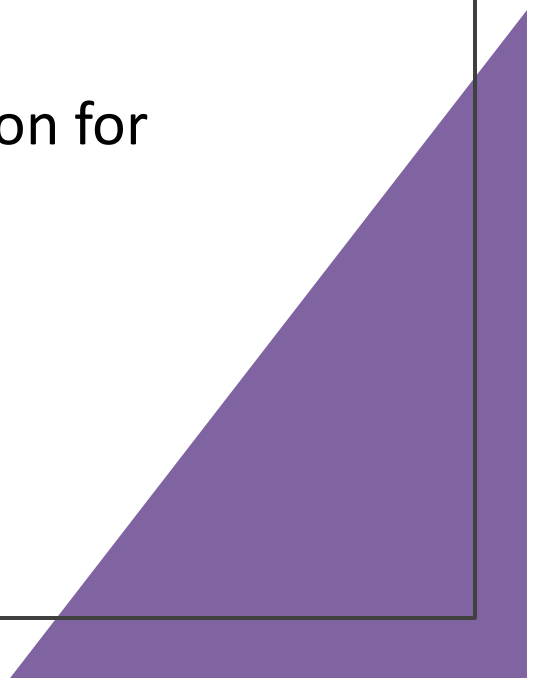
Practice :

- Singing enhances bonding (eye contact, sensitivity)
- Playful singing engaging and natural
- Adapt to individual mother-infant needs

Policy:

- Include singing in parenting programs.
- Train staff to model singing interactions.
- Combine singing with speech, play, and touch

Conclusion & Future Directions

- Singing enhances observable engagement behaviors
 - Practical: Low-cost, accessible intervention for bonding
 - Future research:
 - Diverse samples
 - Longer-term effects
 - Attachment development
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Thanks for your attention! 😊
Any questions?



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References

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