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# Social Contexts: Infants and Songbirds

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August 2021

# INTRODUCTION



## Overview of the topic

How infants learn to speak and how songbirds learn to sing both have a lot in common. Songbirds follow a role model to learn how to sing and infants follow their mother to learn how to speak. In addition, both songbirds and infants have a babbling stage (Goldstein et al., 2003). Therefore, social interactions have an impact on the behaviors and vocal development of both species, whether those interactions are between an infant and his mother or different songbirds flocks.



**1**

# **Social interaction shapes babbling: Testing parallels between birdsong and speech**

**Michael H. Goldstein, Andrew P. King, and Meredith J. West (2003)**

“

## *THE RESEARCH QUESTION*

*Do direct interactions  
between a mother and an  
infant influence an infant's  
babbling behavior?*



## METHODS

Each infant was placed with their mother in a playroom. In one group, the mother directly responded to the babbling of their infant. In another group, the mother interacted randomly to the babbling of their infant. The researchers then measured the sounds produced by the infants and infants' behavior.



# RESULTS & CONCLUSION

Social interaction between the mother and infant influenced the babbling and the sounds produced by the infant as well as his behavior.

In conclusion, social interaction plays an important role in the development of speech in infants.





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## Flock-specific recognition of chickadee call

Stephen Nowicki (1983)





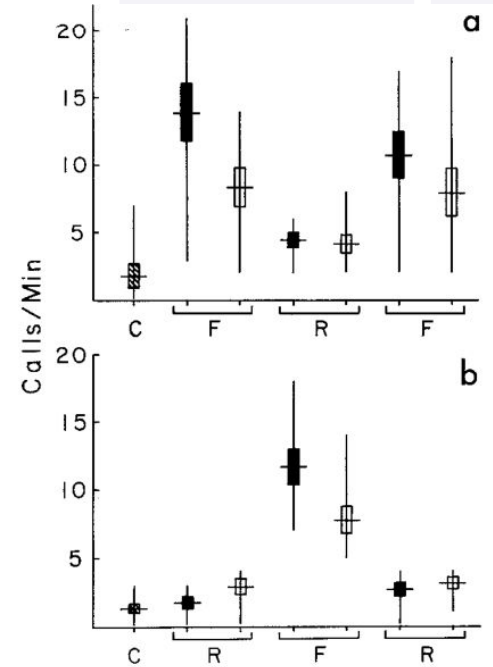
*THE RESEARCH QUESTION*

*Do black-capped chickadee  
(*Parus atricapillus*) flocks  
recognize the difference  
between their own calls and  
the calls of another flock?*



## METHODS

With the help of a playback experiment Nowicki was able to examine the interactions of different flocks of birds. Thus, he could determine if the different flocks of chickadee recognize each other and recognize the different calls. The experiment was done by playing the stimulus calls of different flocks and measuring the effects of it on the study birds.



Effects of playback stimuli on flock calling rate

# RESULTS & CONCLUSION

It was found that the calling increased significantly with the presence of birds of different species. Therefore, black-capped chickadee (*Parus atricapillus*) flocks recognize the difference between their own calls and those of another flock.



# CONCLUSION

# OVERALL CONCLUSION

In conclusion, infants and songbirds have a lot in common when it comes to vocal development. Both, infants and songbirds are influenced by the behaviors and the social interactions of others around them. The way a mother interacts with her infant have an impact on his development and behaviors, just like the interactions between different songbird flocks have and impact on the vocal development and behaviors of songbirds.

# ACKNOWLEDGEMENTS

A special thank you to WISEST, my supporters, my supervisors Moriah Deimeke and Prateek Sahu and my Principal Investigator Dr. Christopher Sturdy for making my research possible this summer.

CREDITS: This presentation template was created by SlidesCarnival

# Literature Cited

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**THANKS!**