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The Netherlands

Seeing voices: the role of multimodal cues in vocal learning

Varkevisser, J.M.

Citation

Varkevisser, J. M. (2022, October 20). *Seeing voices: the role of multimodal cues in vocal learning*. Retrieved from <https://hdl.handle.net/1887/3483920>

Version: Publisher's Version

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Stellingen behorende bij het proefschrift:

Seeing voices: the role of multimodal cues in vocal learning

1. In many song tutoring studies in zebra finches, the effects of 'multimodal' and 'social' tutoring cannot be disentangled (this thesis, Chapter 2).
2. Audio-visual compared to audio-only exposure to a live tutor can affect the developmental course of song learning in zebra finches (this thesis, Chapter 3).
3. Multimodal stimulus presentation can increase stimulus salience in zebra finches, but this does not necessarily lead to improved learning of the stimulus (this thesis, Chapter 4).
4. Being housed alone or with a social companion during song tutoring affects song learning outcomes in zebra finches (this thesis, Chapter 5).
5. The RoboFinch is a promising tool for research and further studies should therefore focus on how methodological choices affect the RoboFinch's influence on zebra finch behaviour (this thesis, Chapter 5).
6. An effort should be made to determine which variables are involved in social interaction, so that each of these can be studied separately with regard to its effect on song learning.
7. The facilitating effect of visual cues on bird song learning should be studied in quiet and in noisy conditions.
8. While creating artificial tutors such as video and robotic tutors, the perceptual system of the species for which they are designed should be taken into account.
9. Different experimental treatments may affect the developmental path of certain behaviours but eventually result in the same outcome, which makes it important to not only study the fully developed behaviour but also its developmental trajectory.
10. It is important to determine to what extent different methods used in studies addressing the same question yield comparable outcomes by using them side-by-side within the same study and on the same data set.
11. Although students might find a particular way in which teachers present study material very attractive, research is necessary to indicate whether that way of presenting the material is also efficient for learning.

*Judith Varkevisser,
Leiden, 20 October 2022*