

Inherent and Emergent Biases of Vocal Learning Timeframes in Zebra Finches

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Abstract

Language acquisition researchers have demonstrated that human infants tend to learn some sound classes before others. However, similar biases acting on classes of sounds have not yet been demonstrated in a birdsong model. Here, I detail the learning strategies of four zebra finches at both the level of the song and the level of the syllable. Although some syllables, namely introductory notes and transient chirps, appear to emerge along regular timeframes, the learning strategy chosen by the bird also has a strong influence on each syllables ontogeny. Syllables imitated earlier in a songs development tend to be imitated more accurately than syllables derived later in the learning process.