



Universiteit
Leiden
The Netherlands

The flexible listener: exploring zebra finch sensitivity to spectral and temporal sound features

Ning, Z.

Citation

Ning, Z. (2024, May 2). *The flexible listener: exploring zebra finch sensitivity to spectral and temporal sound features*. Retrieved from <https://hdl.handle.net/1887/3750255>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3750255>

Note: To cite this publication please use the final published version (if applicable).

The Flexible Listener

Exploring zebra finch sensitivity
to spectral and temporal sound features

Zhi-Yuan Ning

寧致遠

Ning, Zhi-Yuan

The Flexible Listener:

Exploring zebra finch sensitivity to spectral and temporal sound
features

PhD thesis, Leiden University, the Netherlands

An electronic version of this thesis can be downloaded from:

openaccess.leidenuniv.nl

Cover design and lay-out by Zi-Yang Ning

Inspired by Zhi-Yuan Ning's thesis

Printed by Ridderprint, Ridderkerk

© 2024

Dit onderzoek werd gefinancierd door de Chinese Scholarship Council

The Flexible Listener

Exploring zebra finch sensitivity to spectral and temporal
sound features

Proefschrift

ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof.dr.ir. H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op donderdag 2 mei 2024
klokke 11:15 uur

door

Zhi-Yuan Ning
geboren te Canton, China

Promotores

Prof. dr. C.J. ten Cate

Prof. dr. H. Honing

Promotiecommissie

Prof. dr. A.H. Meijer

Prof. dr. H.W. Slabbekoorn

Dr. M. Hoeschele (Universitat Wien, Austria)

Dr. S. Moorman (University of Groningen)

Prof. dr. K.R.L. Janmaat (Leiden University/ University of Amsterdam)

CONTENTS

Chapter 1	General Introduction	7
Chapter 2	The Role of Spectral Features and Song Duration in Zebra Finch Song Recognition	21
Chapter 3	Female and Male Zebra Finches Preferences for Normal and Modified songs	67
Chapter 4	Zebra Finches Demonstrate Cognitive Flexibility in Using Phonology and Sequence of Syllables in Auditory Discrimination	91
Chapter 5	Perceptual Interplay of Pitch and Formant Contours in Melody Recognition by Zebra Finch	123
Chapter 6	General Summary, Discussion & Conclusion	159
	Nederlandse samenvatting	175
	Acknowledgements	181
	Curriculum Vitae	184
	Publications	186

