

Title of dissertation here

Firstname Surname

*Submitted in partial fulfillment of the requirements of the Degree of
Doctor of Philosophy*

Date here

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Details of collaboration and publications:

Chapter 2: So and so helped me

Chapter 3: It's published!

Abstract

Zebra finches are a well-established animal model. . . continue here

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List of Abbreviations

2-AFC — 2-alternative forced choice
ABX / AXB — operant conditioning

Acknowledgements

Thank you supervisor, thank you friends, thank you family.

Chapter 1

This is the title at the beginning of the chapter

Can put an abstract for the chapter here that will appear right under the title.

1.1 Introduction

After the development of Operanter, ... 1) the Leiden University setup has been used in many published studies over the last decade (e.g. Chen, Rossum, & Cate, 2015; Heijningen, Visser, Zuidema, & Cate, 2009; Holveck & Riebel, 2007).

There's an image held in an External subdirectory about brains (Figure 1.1). Weirdly always make sure there's a full empty line space before an R chunk!

1.2 Methods

1.2.1 Animals

Some text here

1.2.2 Apparatus

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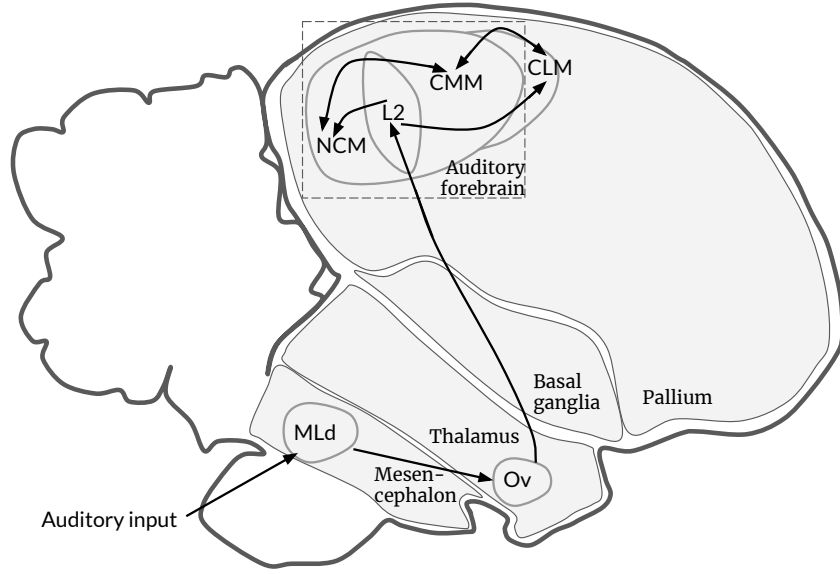


Figure 1.1: Parasagittal cartoon of song perception regions in the zebra finch. MLd - dorsal lateral nucleus of the mesencephalon. Ov - nucleus ovoidalis. L2 - Field L2. NCM - caudomedial nidopallium. CMM - caudomedial mesopallium. CLM - caudolateral mesopallium.

Table 1.1: Go and No-Go training and playback stimuli for all conditions.

		Stimulus		
		Training		Testing
		Go	No-Go	Playback
Condition	Go	A	B	A
	No-Go	B	A	A
	Novel	C	D	A
	Habituated	Red	Green	A

1.2.3 Statistics

All statistics were carried out using the base stats package in R v3.3.3 unless otherwise noted.

1.3 Results

Some results here can be seen in Figure 1.2.

Check out some italics (use an underscore on either side) ($t(34.6) = -3.2$, $p = 0.003$).

Also have some tables (see Table 1.1 and Table 1.2).

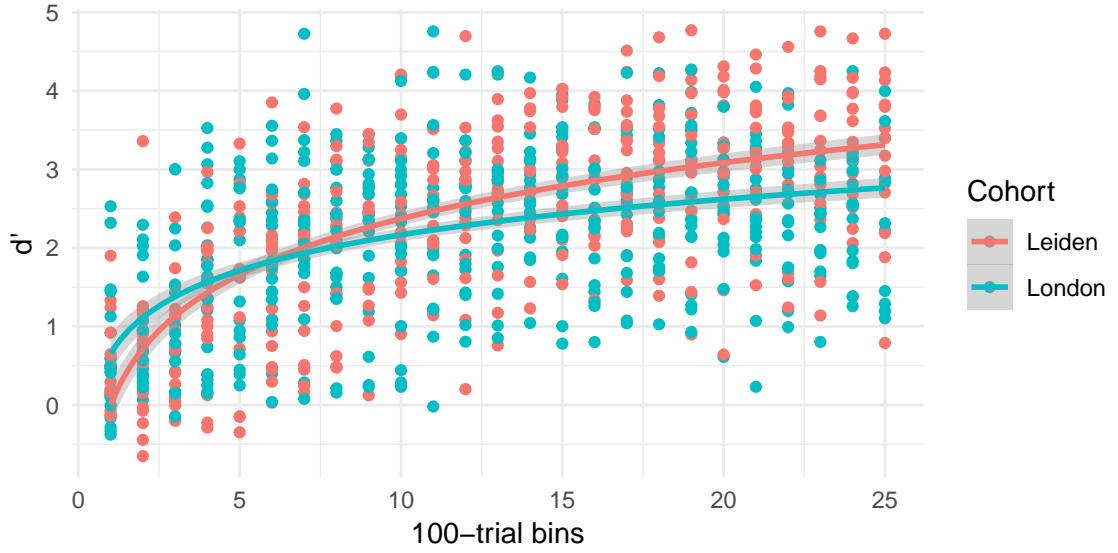


Figure 1.2: Figure title and caption here.

Table 1.2: LMMs for median pixel intensity of all target brain regions.

Model	Factors	df	AIC	Log-lik.	Comparator	χ^2 test	P ($> \chi^2$)
NULL	WholeMed + (1 SongID)	4	945.9	-469.0			
1	NULL + Condition	7	948.0	-467.0	NULL	3.9	0.27
2	NULL + ROI	11	886.0	-432.0	NULL	73.9	2.4e-14
3	Model 2 + Condition	14	885.2	-428.6	Model 2	6.8	0.08
4	Model 3 + Condition:ROI	35	906.0	-418.0	Model 3	21.2	0.45

1.4 Discussion

Blah blah blah.

Chapter 2

Discussion

Lots more stuff

2.1 With subheaders

And text in there

2.1.1 And subsubheaders

And text in there

References

Chen, J., Rossum, D. van, & Cate, C. ten. (2015). Artificial grammar learning in zebra finches and human adults: XYX versus XXY. *Animal Cognition*, 18(1), 151–164.

Heijningen, C. A. A. van, Visser, J. de, Zuidema, W., & Cate, C. ten. (2009). Simple rules can explain discrimination of putative recursive syntactic structures by a songbird species. *Proceedings of the National Academy of Sciences of the United States of America*, 1–6.

Holveck, M.-J., & Riebel, K. (2007). Preferred songs predict preferred males: consistency and repeatability of zebra finch females across three test contexts. *Animal Behaviour*, 74(2), 297–309.

Appendix A

This document was composed using R Markdown in RStudio. A respository containing all raw data, R statistical code, and other text necessary to reproduce this thesis in its entirety is available at <http://github.com/maevemcmahon/thesis>