

# AMALIA PINKUSFELD MEDEIROS BASTOS

Website: [www.apmbastos.com](http://www.apmbastos.com) | Email: [abastos@ucsd.edu](mailto:abastos@ucsd.edu)

Citizenships: Portugal, Brazil | Residency: New Zealand

## EDUCATION

---

**The University of Auckland**, New Zealand January 2017 – September 2021  
PhD in Psychology, School of Psychology  
Advisor: Dr. Alexander Taylor. PhD Award Date: 03/05/2022 (*Awarded with no corrections*)

**University of Oxford**, UK October 2013 – September 2016  
BA(Hons) in Biological Sciences, Advisor: Dr. Alex Kacelnik  
Studied under a full scholarship. (*First Class*)

## POSTDOCTORAL TRAINING:

**Johns Hopkins University**, USA February 2023 – Present  
Postdoctoral Fellow, Department of Psychological and Brain Sciences  
Advisor: Dr. Christopher Krupenye

**University of California San Diego**, USA February 2022 – January 2023  
Postdoctoral Scholar, Department of Cognitive Science  
Advisor: Dr. Federico Rossano

**University of California San Diego**, USA March 2022 – July 2022  
Adjunct Instructor, Department of Cognitive Science

**The University of Auckland**, New Zealand December 2021 – February 2022  
Research Fellow, School of Psychology & School of Computer Science  
Advisors: Dr. Alexander Taylor & Dr. Michael Witbrock

## PUBLICATIONS [Three key publications are shown in blue font][\*denotes equal contribution]

---

### 2023

15. Armitage, K. L., Suddendorf, T., Bulley, A., **Bastos, A. P. M.**, Taylor, A. H., & Redshaw, J. (*in press*). Creativity and flexibility in young children's use of external cognitive strategies. *Developmental Psychology*. (IF: 3.85)
14. Smith, G. E., **Bastos, A. P. M.**, Evenson, A., Trottier, L., & Rossano, F. (*in press*). Use of Augmentative Interspecies Communication (AIC) devices in animal language studies: A review. *WIREs Cognitive Science*. (IF: 3.48)

### 2022

13. Smith, G. E.\*, **Bastos, A. P. M.\***, Chodorow, M., Taylor, A. H., & Pepperberg, I. M. (2022). Contrafreeloading in kea (*Nestor notabilis*) in comparison to grey parrots (*Psittacus erithacus*). *Scientific Reports*, 12, 17415. DOI: 10.1038/s41598-022-21370-6. (Citations: 0, IF: 4.99)

12. Taylor, A. H., **Bastos, A. P. M.**, Brown, R. L., Allen, C. (2022) The signature-testing approach to mapping biological and artificial intelligences. *Trends in Cognitive Sciences*, 26(9), 738-750. DOI: 10.1016/j.tics.2022.06.002. (Citations: 2, IF: 15.40)

11. **Bastos, A. P. M.**, Nelson, X. J., & Taylor, A. H. (2022) From the lab to the wild: How can captive studies aid the conservation of kea (*Nestor notabilis*)? *Current Opinion in Behavioral Sciences*, 45, 101131. DOI: 10.1016/j.cobeha.2022.101131. (Citations: 2, IF: 4.47)

## 2021

10. **Bastos, A. P. M.**, Wood, P. M., & Taylor, A. H. (2021) Are parrots naïve realists? Kea behave as if the real and virtual worlds are continuous. *Biology Letters*, 17(9), 20210298. DOI: 10.1098/rsbl.2021.0298. (Citations: 2, IF: 3.81)

9. **Bastos, A. P. M.\***, Horváth, K.\*, Webb, J., Wood, P. M., & Taylor, A. H. (2021) Self-care tooling innovation in a disabled kea (*Nestor notabilis*). *Scientific Reports*, 11, 18035. DOI:10.1038/s41598-021-97086-w. (Citations: 7, IF: 4.99)

8. **Bastos, A. P. M.**, Wood, P. M., & Taylor, A. H. (2021) Kea (*Nestor notabilis*) fail a loose-string connectivity task. *Scientific Reports*, 11, 15492. DOI: 10.1038/s41598-021-94879-x. (Citations: 2, IF: 4.99)

7. **Bastos, A. P. M.**, Neilands, P., Hassall, R., Lim, B. C., & Taylor, A. H. (2021) Dogs mentally represent jealousy-inducing social interactions. *Psychological Science*, 32(5): 646-654. DOI: 10.1177/0956797620979149. (Citations: 4, IF: 4.99)

## 2020

6. **Bastos, A. P. M.**, & Taylor, A. H. (2020) Macphail's null hypothesis of vertebrate intelligence: Insights from avian cognition. *Frontiers in Psychology*, 11, 1692. DOI: 10.3389/fpsyg.2020.01692. (Citations: 7, IF: 2.99)

5. **Bastos, A. P. M.**, & Taylor, A. H. (2020) Kea show three signatures of domain-general statistical inference. *Nature Communications*, 11, 828. DOI: 10.1038/s41467-020-14695-1 (Citations: 34, IF: 17.69)

4. Neilands, P., Claessens, S., Ren, I., Hassall, R., **Bastos, A. P. M.**, & Taylor, A. H. (2020) Contagious yawning is not a signal of empathy: no evidence of familiarity, gender, or prosociality biases in dogs. *Proceedings of the Royal Society B: Biological Sciences*, 287, 20192236. DOI: 10.1098/rspb.2019.2236. (Citations: 20, IF: 5.53)

3. Neilands, P., Hassall, R., Derks, F., **Bastos, A. P. M.**, & Taylor, A. H. (2020) Watching eyes do not stop dogs stealing food: evidence against a general risk-aversion hypothesis for the watching-eye effect. *Scientific Reports*, 10, 1153. DOI: 10.1038/s41598-020-58210-4. (Citations: 1, IF: 4.99)

## 2019

2. **Bastos, A. P. M.** & Taylor, A. H. (2019) Kea (*Nestor notabilis*) represent object trajectory and identity. *Scientific Reports*, 9, 19759. DOI: 10.1038/s41598-019-56380-4. (Citations: 10, IF: 4.99)

1. Heaney, M., **Bastos, A. P. M.**, Gray, R. D., & Taylor, A. H. (2019) Are kea prosocial? *Ethology*, 126(2), 175–183. DOI: 10.1111/eth.12944. (Citations: 11, IF: 1.90)

## SELECTED AWARDS & ACHIEVEMENTS

---

- 2022 ERC Consolidator Grant (*named collaborator and postdoctoral fellow, PI: Dr. Alex Taylor*)  
European Research Council, value: €2,051,921
- 2022 10<sup>th</sup> Most Downloaded Paper in Scientific Reports Ecology Collection  
For: “*Self-care tooling innovation in a disabled kea (Nestor notabilis)*”
- 2021 **Faculty of Science Strategic Initiative PhD Output Award**  
**The University of Auckland, value: NZD\$4,000**
- 2021 Early Career Collaboration Enhancement Award  
Diverse Intelligences Summer Institute, value: USD\$5,000
- 2019 Diverse Intelligences Summer Institute Alumnus Fellowship  
UCLA & Templeton World Charity Foundation, value: USD\$4,000
- 2018 Diverse Intelligences Summer Institute Fellowship  
UCLA & Templeton World Charity Foundation, value: USD\$2,830
- 2013 **Full CNPq-Oxford Undergraduate Scholarship**  
**University of Oxford & CNPq, value: £116,000**

## TEACHING EXPERIENCE

[\*denotes remote course]

- 
- 27/06/2022 – 30/07/2022 **COGSCI 13: Cognition in the Wild\***, Instructor  
University of California San Diego, USA
- 23/03/2022 – 10/06/2022 **COGSCI 142: Animal Communication**, Instructor  
University of California San Diego, USA
- 31/05/2021 – 31/12/2021 **BIOSCI 337: Animal Behaviour**, Graduate Teaching Assistant  
The University of Auckland, New Zealand
- 31/05/2021 – 31/12/2021 **BIOSCI 207: Adaptive Form and Function**, Graduate Teaching Assistant  
The University of Auckland, New Zealand

## SELECTED WORKSHOPS & COURSES ATTENDED

---

- 2021 Kinds of Intelligence Programme  
Leverhulme Centre for the Future of Intelligence, University of Cambridge (Remote)
- 2021 Representing the world in the developing mind: From objects to context  
Central European University Summer Course (Remote)
- 2021 Evolution of Normativity Workshop  
York University, UK; John Carroll University, USA (Remote)

## SELECTED TALKS, PRESENTATIONS, & POSTERS

---

- 29/09/2022 “The Science Behind Button Teaching”  
Petminded Online Community (Remote Workshop)
- 07/07/2022 “If I Could Talk to the Animals”  
Joseph Moore Museum of Earlham College, Richmond IN, USA (Invited Talk)
- 26/11/2021 “Kea show three signatures of domain-general inference”  
Kinds of Intelligence 3, University of Cambridge, UK (Remote Workshop)
- 07/10/2021 “What do we know about kea intelligence and how can we protect them?”  
Royal Forest and Bird Protection Society of New Zealand\* (Invited Remote Talk)

- 06/10/2021 “Behaviour and complex cognition in kea parrots”  
Department of Cognitive Science, UCSD (Remote Invited Talk)
- 30/09/2021 “The cognitive abilities of New Zealand’s alpine parrot”  
SBS Seminar Series, University of Canterbury, NZ (Invited Seminar)
- 27/07/ 2021 “Kea show three signatures of domain-general inference.”  
CogSci 2021: Comparative Cognition - Animal Minds (Remote Poster)
- 07/07/2021 “Dogs mentally represent jealousy-inducing social interactions.”  
Canine Science Forum 2021 (Remote Poster)
- 10/04/2021 “Kea show three signatures of domain-general statistical inference”  
28th Annual International Conference on Comparative Cognition (Remote Poster)
- 18/03/2021 “Behaviour, cognition, and conservation of kea”  
Department of Conservation Workshop, Willowbank Wildlife Reserve, Canterbury, NZ  
(Invited Talk)
- 30/09/2021 “Kea show three signatures of domain-general statistical inference”  
ASSAB 2020 Conference (Remote Talk]
- 07/09/2019 “Evolutionary aesthetics? Visual preferences in kea”  
Diverse Intelligences Grantee Summit, University of St. Andrews, UK (Invited Talk)

## SELECTED MEDIA COVERAGE

---

- 17/05/2022 *Psychology Today*: How can a species’ behaviour inform its conservation?
- 29/09/2021 *The Times*: Endangered kea parrots learn to use touchscreen computers
- 14/09/2021 *Smithsonian Magazine*: Bruce the parrot uses tools to survive despite a broken beak
- 11/09/2021 *Australian Geographic*: Meet Bruce, the disabled kea who practices ‘self care’
- 10/09/2021 *The New York Times*: Bruce is a parrot with a broken beak. So he invented a tool
- 12/04/2021 *IFL Science*: The mere thought of you petting another dog may make your dog jealous
- 08/04/2021 *New Zealand Herald*: Pooch pride: Yes, dogs do get jealous, NZ study shows
- 21/02/2021 *BBC Two, Chris Packham’s Animal Einsteins*: Masterminds
- 05/04/2020 *TVNZ1, Sunday*: Kea, Kaitiaki
- 03/03/2020 *The Guardian*: Study finds parrots weigh up probabilities to make decisions
- 03/03/2020 *Forbes*: Parrots Make Predictions Based on Statistical Probabilities
- 01/05/2018 *New Zealand Geographic*: Birds of Play

## THESIS & RESEARCH MENTORSHIP

---

- 2020 – 2021 Lisa Mulser, The University of Auckland [Secondary Supervisor]  
Summer Scholar: *Human performance in non-verbal intuitive statistics tasks*
- 2020 Kata Horváth, Campus Mundi Scholarship, Eötvös Loránd University  
Visiting Postgraduate Scholar
- 2020 Marieke van den Berg, HAS University of Applied Sciences  
Honours Thesis: *Do kea have aesthetic preferences?*
- 2020 Martin Dessart, La Faculté des Sciences de la Vie, Université de Strasbourg  
Master’s Thesis: *Effects of the warble call on optimism in kea (Nestor notabilis)*
- 2019 – 2020 Gabriela Venable, Yale Robert C. Bates Fellowship, Yale University  
Visiting Postgraduate Scholar
- 2019 Rosalie Molin, Licence Frontières du Vivant, Université Paris Descartes  
Honours Thesis: *Statistical inference in kea (Nestor notabilis)*
- 2019 Amy Zhang, Dartmouth Reynolds Fellowship, Dartmouth University  
Visiting Postgraduate Scholar

2017 – 2018 Byung Lim, The University of Auckland  
Honours Thesis: *A signature-testing approach of jealousy in dogs*

## RESEARCH EXPERIENCE & FIELD SITES

---

**Animal Methodologies:** Behavioural studies, observational studies, touchscreen tasks, non-invasive sample collection, mist net trapping, whoosh net trapping, camera trapping.

**Human Methodologies:** Online surveys and questionnaires, online behavioural studies.

### Humans

2022 – Comparative Cognition Lab, University of California San Diego  
2021 – 2022 Animal Minds Lab & Strong AI Lab, The University of Auckland

### Dogs

2022 – Comparative Cognition Lab, University of California San Diego  
2021 & 2022 CleverPet Inc. [Consultant]  
2017 – 2022 Animal Minds Lab, The University of Auckland

### Birds

2017 – 2021 Animal Minds Lab & Willowbank Wildlife Reserve (kea parrots)  
2017 – 2021 Animal Minds Lab (wild New Caledonian crows)  
2016 The Goffin Lab, University of Veterinary Medicine Vienna (Goffin cockatoos)

### Other

2017 – 2021 Animal Minds Lab, The University of Auckland (archer fish)  
2015 Biodiversity Institute, University of Oxford [Intern] (paleobotany & paleoecology)  
2012 Departamento de Zoologia, Universidade do Estado do Rio de Janeiro (rodent taxonomy & allometry)

## PROFESSIONAL SERVICE

---

**Grant Reviewer:** Mind Science Foundation Tom Slick Research Awards in Consciousness

**Journal Reviewer:** Biology Letters [1], Animal Cognition [1], Behaviour [5], Current Zoology [2], Animal Behavior and Cognition [1], Topics in Cognitive Science [1], Notornis [1], PeerJ [1]