

Dr Tomer Joseph Czaczkes

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Education

- 2004 – 2007 **University of Oxford**
BA Hons Biological Sciences 1st class
- 2008 – 2012 **University of Sussex**
PhD – Biological Sciences
Thesis title: Organisation of Foraging in Ants
- 2016 – 2020 **University of Regensburg**
Habilitation
Thesis title: Information processing in ants: Learning, value perception, and strategic information use

Research experience

- 2021 - present **Group leader – Animal Comparative Economics lab**
ERC Starter Grant funded project:
Cognitive Control - Revolutionizing invasive alien species control using behavioural economics and animal cognition
- Heisenberg enabled project:
Plants as consumer psychologists
- 2016 – 2021 **Group leader – Animal Comparative Economics lab**
Emmy Noether funded project:
“Invertebrates as models for economic decision-making: consumer psychology in biological systems”
- 2015 – 2016 Part-time work, due to child-care
- 2013 – 2016 **Universität Regensburg**
Alexander von Humboldt Postdoctoral Researcher
“Colony level organisation: the effect of route memories, trail pheromones, and their interactions”
- 2008 – 2012 **University of Sussex**
PhD Studentship: “Organisation of Foraging in Ants”

Selected Publications

1. de Agró, M, Grimwade, D, Bach, R, and **Czaczkes, TJ** (2021) Irrational risk aversion in ants. *Animal Cognition*
2. Oberhauser, FB, Koch, A, de Agró, M, Rex, K, and **Czaczkes, TJ** (2020). Ants resort to heuristics when facing relational-learning tasks they cannot solve. *Proceedings of the Royal Society B*
3. Wendt, S, Kleinhöfing, N, and **Czaczkes, TJ** (2020). Negative feedback: Ants choose unoccupied over occupied food sources and lay more pheromone to them. *Journal of the Royal Society: Interface*
4. Wendt S, Strunk KS, Heinze J, Roider A, **Czaczkes TJ** (2019) Positive and negative incentive contrasts lead to relative value perception in ants. *eLife*
5. **Czaczkes TJ**, Beckwith J, Horsch A-L, Hartig, F (2019). The multi-dimensional nature of information drives prioritisation of private over social information in ants. *Proceedings of the Royal Society B*
6. Grüter, C., and **Czaczkes, T.J.** (2019). Communication in social insects and how it is shaped by individual experience. *Animal Behaviour*
7. **Czaczkes TJ**, Brandstetter B, di Stefano I, Heinze J. (2018). Greater effort increases perceived value in an invertebrate. *Journal of Comparative Psychology*.
Best paper award, J. Comp. Psych. 2018
8. **Czaczkes TJ**, Czaczkes, B., Iglhaut, C., & Heinze, J. (2015). Composite collective decision-making. *Proceedings of the Royal Society B*.
9. **Czaczkes TJ**, & Heinze, J. (2015). Ants adjust their pheromone deposition to a changing environment and their probability of making errors. *Proceedings of the Royal Society B*.
10. **Czaczkes TJ**, Grüter, C., & Ratnieks, F. L. W. (2015). Trail pheromones: an integrative view of their role in colony organisation. *Annual Review of Entomology*.

Citation metrics: H-index: 19, i10-index: 34, Citations: 1315
(Indices from Google Scholar, updated 02/011/2021)

A complete list of all publications can be found on Google Scholar
<http://scholar.google.de/citations?user=5fy0Y6oAAAAJ&hl=en>

Funding, Awards, and Scholarships

- ERC Starter Grant (€1,451,805)
- Heisenberg Programme (€520,500)
- Emmy Noether Junior group leader grant (DFG) (€807,167)
- Alexander von Humboldt postdoctoral researcher scholarship (€126,000)
- Drittmittelinwerbung Anreizsystem 2015 (U. Reg) (€30,000)
- Drittmittelinwerbung Anreizsystem 2020 (U. Reg) (€30,000)
- “UR Fellows” interdisciplinary collaboration seed fund (€10,264)
(with Prof. Gesine Dreisbach, Chair of Comparative Psychology, Regensburg)
- American Psychological Association:
Journal of Comparative Psychology Frank Beach Award Best Paper 2018

Reviewing and editorial work

- Grant proposals - German Science Foundation (DFG - Germany),
National Science Foundation (NSF – USA)
Minerva Stiftung (Germany / Israel)
National Science Centre (Poland)
- Scientific Journals - PNAS, PLOS Comp. Biol., eLife, Proc B., Biol.
Letters, Nature Comms., J. Exp. Biol., Anim. Behav., etc.
- Associate Editor - Scientific Reports (2019 - 2020)
Ecological Entomology (2020 onwards)
- Consulting Editor - Journal of Comparative Psychology (2021 onwards)

Teaching, supervision, and teaching qualifications

- **Direct supervision**
Postdoctoral researcher (1)
PhD students (5 as main supervisor, 2 as second supervisor, 2 as 6-month host)
MSc students (2 MSc projects, 6 > eight-week projects)
BSc students (5 BSc projects, 12 > four- and eight-week projects)
- **Lecture series: Animal Cognitive Ecology**
12-week lecture series for BSc and MSc students, with graded final exam.
In collaboration with Prof. Konstanze Krüger.
- **Lecture and workshop: An Introduction to Agent-Based Modelling**
4-week lecture and workshop for BSc and MSc students
- **Student practical course: Molecular Ecology and Evolutionary Biology**
6-week rotating practical course for groups of 4-6 BSc students
- **Teaching and supervision qualifications**
- Habilitation (2021)

- **Media**
 - My work has been covered in National and International newspapers (The Economics, LA Times, Süddeutschezeitung, Le Monde, The Telegraph, BBC Wildlife, etc), on television and radio (Discovery Channel, Geld und Leben, 1, 2, oder 3, Bayerische Rundfunk, etc), and online (National Geographic, New Scientist, BBC News, Daily Telegraph, Science, etc).
- **Public outreach**
 - Presentations for members of the public
 - External demonstrations for school and kindergarten children
 - Invited blog posts and video-blogs

Selected talks and presentations (from over 20)

- Plenary lecture, **Taxomara**, international online, 2021
"Information use and value perception in social insects"
- Plenary lecture, **ESCBC**, Padova, Italy (2019)
"Value perception and advanced cognition in insects"
- Invited talk, **Weizmann Institute of Technology**, Rehovot, Israel (2018)
"Information use and value perception in social insects"
- Invited talks, **Virginia Tech**, Virginia, US (2018)
"Information use and value perception in social insects"
and
"Ants: Basic Biology and General Awesomeness"
- Plenary lecture, **Central European IUSI meeting**, Würzburg, Germany (2017)
"Value perception and comparative psychology in ants"
- Invited talk, **University of Oxford**, Department of Zoology (2017)
"Information use, cognition, and value perception in ants"
- Invited talk, **University of Toulouse**, CNRS (2017)
"Value perception and comparative psychology in ants"
- Invited talk, **University of Lausanne**, Switzerland (2015)
"Memories, pheromones, and collective decision making: all my not be as it seems"

Languages

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| • English | Fluent (native speaker) |
| • German | Fluent |
| • Hebrew | Good |
| • Spanish | Fair |