# TANYA R. JONKER

tanyarjonker@gmail.com
www.tanyajonker.com

## EMPLOYMENT HISTORY

**Research Science Manager**
Facebook Reality Labs (2020-present)

**Research Scientist**
Facebook Reality Labs (2017-2020)

**Postdoctoral Scholar**
University of California, Davis (2015-2017)
Principle Investigator: Charan Ranganath

## EDUCATION

**PhD, Cognitive Psychology**
University of Waterloo (2011-2015)
Advisor: Colin M. MacLeod
Alumni Gold Medal for outstanding achievement at the Doctoral level

**MA, Cognitive Psychology**
University of Waterloo (2010-2011)
Advisor: Colin M. MacLeod

**BA, Honours Psychology**
University of the Fraser Valley (2005-2009)
Advisors: K. Wayne Podrouzek, Andrea D. Hughes
Governor General's Academic Silver Medal for highest academic standing

**Additional Credentials**
Fundamentals of University Teaching, University of Waterloo
Intermediate Proficiency Certificate in Spanish, University of the Fraser Valley

## RESEARCH FUNDING, AWARDS AND DISTINCTIONS

2015-2017 **Postdoctoral Fellowship**, NSERC, $90,000
**Top ranking score in division

2017 **Early Career Award**, American Psychological Association

2016 **Psychonomic Society Best Poster Award**, First runner-up

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| 2015 | **Alumni Gold Medal**, University of Waterloo<br>**Awarded annually to a single doctoral graduate for exceptional research contribution |
| 2014 | **Young Distinguished Alumni Award**, University of the Fraser Valley |
| 2014 | **University of the Fraser Valley's Top 40 Alumni**, University of the Fraser Valley |
| 2014 | **Michael Smith Foreign Study Award**, NSERC, $6,000 |
| 2012-2015 | **Vanier Canada Graduate Scholarship**, NSERC, $150,000<br>**Most prestigious graduate scholarship award in Canada |
| 2012 | **Canada Graduate Doctoral Scholarship**, NSERC, $105,000, declined |
| 2012 | **President's Scholarship**, University of Waterloo, $30,000, declined |
| 2012 | **Ontario Graduate Scholarship**, OSAP, $15,000, declined |
| 2012 | **Donald O. Hebb Graduate Student Award for Best Paper Presentation**, Honourable mention |
| 2012 | **Amit & Meena Chakma Award for Exceptional Teaching by a Student**, Student nomination |
| 2011-2012 | **Ontario Graduate Scholarship**, OSAP, $15,000 |
| 2011 | **Donald O. Hebb Graduate Student Award for Best Paper Presentation**, Honourable mention |
| 2010-2012 | **President's Scholarship**, University of Waterloo, $20,000 |
| 2010-2011 | **Alexander Graham Bell Canada Graduate Masters Scholarship**, NSERC, $17,500 |
| 2010 | **Graduate Fellowship**, University of Victoria, $10,000, declined |
| 2009 | **Governor General's Academic Silver Medal**, University of the Fraser Valley<br>**Awarded to a single recipient for top GPA in graduating class |
| 2009 | **Dean's List graduation status**, University of the Fraser Valley |
| 2009 | **Award for Academic Excellence for Honours Thesis**, Canadian Psychological Association |
| 2009 | **Undergraduate Research Excellence Award for Psychology**, University of the Fraser Valley |

## REFERRED PUBLICATIONS

My work is inherently interdisciplinary. Journals are the primary publication venues for cognitive science and neuroscience, and conferences are the primary venues for human-computer interaction research.

### Journal Articles

Boring, M. J., Ridgeway, K., Shvartsman, M., & **Jonker, T. R.** (2020). Continuous decoding of cognitive load from electroencephalography reveals task-general and task-specific correlates. *Journal of Neural Engineering, 17,* 056016.

Wammes, J. D., **Jonker, T. R.**, Fernandez, M. A. (2019). Drawing improves memory: The importance of multimodal context. *Cognition*, 191.

**Jonker, T. R.**, Dimsdale-Zucker, H., Ritchey, M., Clarke, A, & Ranganath, C. (2018). Neural reactivation in parietal cortex enhances memory for episodically linked information. *Proceedings of the National Academy of Sciences, 115*, 11084-11089.

**Jonker, T. R.**, Wammes, J. D., & MacLeod, C. M. (2018). Drawing enhances item information but undermines sequence information in memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition.*

**Jonker, T. R.** & MacLeod, C. M. (2018). Two sources of information in reconstructing event sequence. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 44*, 1013-1022.

**Jonker, T. R.**, & MacLeod, C. M. (2017). Not all order memory is equal: Test demands reveal dissociations in memory for sequence information. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 43*, 177-188.

**Jonker, T. R.** (2016). Individual differences in incorrect responding and the ability to discriminate the source of the products of retrieval. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 42*, 1078-1089.

**Jonker, T. R.,** Seli, P., & MacLeod, C. M. (2015). Retrieval-induced forgetting and context. *Current Directions in Psychological Science, 24*, 273-278.

Seli, P., **Jonker, T. R.,** Cheyne, J. A., Cortes, K., & Smilek, D. (2015). Can research participants comment authoritatively on the validity of their self-reports of mind wandering and task engagement? *Journal of Experimental Psychology: Human Perception and Performance, 41*, 703-709.

**Jonker, T. R.**, & MacLeod, C. M. (2015). Disruption of relational processing underlies poor memory for order. *Journal of Experimental Psychology: Learning, Memory and Cognition*, *41*, 831-840.

**Jonker, T. R.**, Levene, M., & MacLeod, C. M. (2014). Testing the item order account of design effects using the production effect. *Journal of Experimental Psychology: Learning, Memory and Cognition, 40*, 441-448.

Forrin, N. D., **Jonker, T. R.,** & MacLeod, C. M. (2014). Production improves memory equivalently following elaborative vs. non-elaborative processing. *Memory, 22*, 470-480.

**Jonker, T. R.**, Seli, P., Cheyne, J. A., & Smilek, D. (2013). Performance reactivity in a continuous-performance task: Implications for understanding post-error behavior. *Consciousness & Cognition, 22*, 1468-1476.

**Jonker, T. R**., Seli, P., & MacLeod, C. M. (2013). Putting retrieval-induced forgetting in context: An inhibition-free, context-based account. *Psychological Review, 120*, 852-872.

MacLeod, C. M., **Jonker, T. R.,** & James, G. (2013). Individual differences in remembering. Chapter in T. Perfect and D. S. Lindsay (Eds.), *Handbook of applied memory*. London: Sage Publications.

Seli, P., **Jonker, T. R.,** Solman, G. J. F., Cheyne, J. A., & Smilek, D. (2013). A methodological note on evaluating performance in a sustained attention to response task. *Behavior Research Methods, 45*, 355-363.

Seli, P., **Jonker, T. R.,** Cheyne, J. A., & Smilek, D. (2013). Enhancing SART validity by statistically controlling speed-accuracy trade-offs. *Frontiers in Psychology, 4*, 265.

**Jonker, T. R.,** Seli, P., & MacLeod, C. M. (2012). Less we forget: Retrieval cues and release from retrieval-induced forgetting. *Memory & Cognition, 40*, 1236-1245.

**Jonker, T. R**., & MacLeod, C. M. (2012). Retrieval-induced forgetting: Testing the competition assumption of inhibition theory. *Canadian Journal of Experimental Psychology, 66*, 204-211.

## Referred Conference Papers

David-John, B., Peacock, C. E., Zhang, T., Murdison, T. S., Benko, H., **Jonker, T. R.** (2021). Towards gaze-based prediction of the intent to interact in virtual reality. In *Proceedings of ACM Symposium on Eye Tracking Research & Applications* (ETRA '21).

Lengyal, G., Carlberg, K., Samad, M., & **Jonker, T. R.** (2021). Predicting visual attention using the hidden structure in eye-gaze dynamics, In *CHI '21 workshop, "Eye Movements as an Interface to Cognitive State"*.

Peacock, C. E., David-John, B., Zhang, T., Murdison, T. S., Boring, M. J., Benko, H., & **Jonker, T. R.** (2021). Gaze signatures decode the onset of working memory encoding. In *CHI '21 workshop, "Eye Movements as an Interface to Cognitive State"*.

**Jonker, T. R.**, Desai, R., Carlberg, K., Hillis, J., Keller, S., & Benko, H. (2020). The role of AI in mixed and augmented reality interactions. In *CHI'20 workshop, "Artificial Intelligence: A Modern Approach".*

Cury, M., Whitworth, E., Barfort, S., Bochereau, S., Browder, J., **Jonker, T. R.**, Kim, K. S., Krenchel, M., Ramsey-Elliot, M., Schüür, F., Zax, D. & Zhang, J. (2019). Hybrid methodology: Combining ethnography, cognitive science, and machine learning to inform the development of context-aware personal computing and assistive technology. In *Ethnographic Praxis in Industry Conference Proceedings.*

## RESEARCH ADVISORSHIP

### PhD Interns

Naveen Madapana (2021) Facebook Reality Labs: Research
Candace Peacock (2020-2021) Facebook Reality Labs: Research
Brendan David-John (2020-2021) Facebook Reality Labs: Research
Lifeng Fan (2020) Facebook Reality Labs: Research
Gabor Lengyal (2019-2020) Facebook Reality Labs: Research
Matt Boring (2019) Oculus Research
Qiong Zhang (2018) Oculus Research

### Senior Honours Thesis Students

Ayesha Mehra (2017) University of California, Davis
Chad Fernandez (2011-2012) University of Waterloo
Jon Zimmerman (2011) University of Waterloo

## PROFESSIONAL SERVICE

## Program Committee Member

ISMAR 2021: IEEE International Symposium on Mixed and Augmented Reality
IEEE VR 2020: IEEE International Conference on Virtual Reality and 3D User Interfaces

## Ad-Hoc Reviewer

*Acta Psychologica*
*Canadian Journal of Experimental Psychology*
*Current Directions in Psychological Science*
*Journal of Experimental Psychology: Learning, Memory, and Cognition*
*Memory & Cognition*
*Perspectives in Psychological Science*
*Psychological Science*
*Quarterly Journal of Experimental Psychology*