

# TANYA R. JONKER

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## 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

- 2015 **Alumni Gold Medal**, University of Waterloo  
\*\*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  
\*\*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  
\*\*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

## JOURNAL PUBLICATIONS

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., Mudison, T. S., Benko, H., **Jonker, T. R.** (to appear). 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.** (to appear). 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.** (to appear). 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

Candace Peacock (2020-2021) Facebook Reality Labs  
Brendan David-John (2020-2021) Facebook Reality Labs  
Lifeng Fan (2020) Facebook Reality Labs  
Gabor Lengyal (2019-2020) Facebook Reality Labs  
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*