# William N. Koller, M.S., M.Phil.

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### **EDUCATION**

2019 - Yale University

New Haven, CT

Ph.D. Candidate, Clinical Psychology Advisor: Tyrone D. Cannon, Ph.D.

Dissertation title: Out of context: The role of memory biases in the genesis and maintenance of

psychotic-like thought and experience

2022 M.S., M.Phil., Clinical Psychology

2016 University of Melbourne, Undergraduate Coursework

Melbourne, VIC, Australia

Semester abroad

2013-2017 Bates College

Lewiston, ME

Bachelor of Arts, Cum Laude

Majors: Psychology (Biological & Health) French and Francophone Studies

Minor: Chemistry

#### **HONORS AND AWARDS**

2023	Frederick W. Hilles Memorial Scholarship Fellow
2016-2017	Bates College Student Research Fund Recipient: Received competitive grant for independent
	research
2014-2017	Bates College Dean's List for Academic Excellence: 5 semesters
2017	Phi Beta Kappa
2017	Departmental Honors in Psychology
2016	University of Melbourne Honours 1: Equivalent of Dean's List; 1 semester
2015	Bates College Albion Morse Stevens Award in Foreign Language

#### **PUBLICATIONS**

- Ongchoco, J. D. K., **Koller, W. N.,** Bronstein, M. V., Yates, T. S., Cannon, T. D., Scholl, B. (in prep). Out of sync in time and thought: Disordered event segmentation in paranoia.
- **Koller, W. N.,** Ongchoco, J. D. K., Bronstein, M. V., Scholl, B., Cannon, T. D. (submitted). A "hyper-recency" bias in memory characterizes both psychoticism and déjà vu experiences.
- \*Koller, W. N., \*†Thompson, H., & Cannon, T. D. (2023). Conspiracy mentality, subclinical paranoia, and conservatism are associated with status threat. *PLoS ONE 18*(11): e0293930. https://doi.org/10.1371/journal.pone.0293930. PDF
- **Koller, W. N.** & Cannon, T. D. (2023). Intrusive-like memory errors associate with positive schizotypy. *Schizophr Res Cogn*, 34. <u>PDF</u>

<sup>\*</sup>signifies equal contribution; †signifies mentee author

- Rance, M., Zhao, Z., Zaboski, B., Kichuk, S. A., Romaker, E., Koller, W. N., Walsh, C., Harris-Starling, C., Wasylink, S., Adams Jr., T., Gruner, P., Pittenger, C., & Hampson, M. (2023). Neurofeedback for obsessive compulsive disorder: A randomized, double-blind trial. Psychiatry Res, 115458.
- Koller, W. N. & Cannon, T. D. (2023). Reduced benefit of novelty detection on subsequent memory judgments in paranoia. J Psychopathol Clin Sci, 132(6), 761-767. doi:doi.org/10.1037/abn0000829. PDF
- Zhao, Z., Duek, O., Seidemann, R., Gordon, C., Walsh, C., Romaker, E., Koller, W. N., Horvath, M., Awasthia, J., Wang, Y., O'Brien, E., Fichtenholtz, H., Hampson, M., & Harpaz-Rotem, I. (2023). Amygdala downregulation training using fMRI neurofeedback in post-traumatic stress disorder: A randomized, double-blind trial. Transl Psychiatry, 13(1), doi:10.1038/s41398-023-02467-6.
- Koller, W. N. & Cannon, T. D. (2022). Aberrant memory and delusionality: A pernicious partnership? Clin Psychol Rev, doi:10.1016/j.cpr.2022.102231. PDF
- Koller, W. N. & Cannon, T. D. (2021). Paranoia is associated with impaired novelty detection and overconfidence in recognition memory judgments. J Abnorm Psychol, 130(3), 273-285. doi:10.1037/abn0000664 PDF
- Sukhodolsky, D. G., Walsh, C., Koller, W. N., Eilbott, J., Rance, M., Fulbright, R. K., . . . Hampson, M. (2020). Randomized, sham-controlled trial of real-time fMRI neurofeedback for tics in adolescents with Tourette Syndrome. *Biol Psychiatry*. doi:10.1016/j.biopsych.2019.07.035
- Rance, M., Walsh, C., Sukhodolsky, D. G., Pittman, B., Qiu, M., Kichuk, S.A., Gruner, P., Wasylink, S., Koller, W. N., Bloch, M., Scheinost, D., Pittenger, C., & Hampson, M. (2018). Time course of clinical change following neurofeedback. Neuroimage, 181, 807-813. doi:10.1016/j.neuroimage.2018.05.001
- Brooks, H., Kichuk, S. A., Adams, T. G., Koller, W. N., Eken, H. N., Rance, M., Monahan, S., Wasylink, S., Kelmendi, B., Pittenger, C., Gruner, P., & Hampson, M. (2018). Developing image sets for inducing obsessivecompulsive checking symptoms. Psychiatry Res, 265, 249-255. doi:10.1016/j.psychres.2018.04.035

#### POSTERS AND PRESENTATIONS

- Koller, W.N. (2023, September). Content out of context: A "hyper-recency" bias in memory characterizes both psychoticism and déjà vu experiences. Presentation given at Current Work in Clinical Psychology symposium, Yale University, New Haven, CT.
- Koller, W.N. (2023, May). Content out of context: Temporal context memory bridges everyday déjà vu experiences and psychoticism. Invited presentation at Brain & Mind: Delusion workshop, St. Hilda's College, University of Oxford, Oxford, UK.
- Koller, W.N. (2023, February). False recognition and recency in déjà vu and schizotypy. Presentation given at Visiting Day symposium, Yale University, New Haven, CT.
- **Koller, W.N.**, Cannon, T. D. (2023, April). *Odd ones out: An online, category-based visual oddball paradigm for schizotypy.* Poster presented at the Society of Biological Psychiatry's 2023 Annual Meeting, San Diego, CA.
- Koller, W.N., Sykes, L. Y. (2023, April). Strategies for supporting a young person with early psychosis. Workshop conducted as part of Specialized Treatment Early in Psychosis program, Connecticut Mental Health Center, New Haven, CT.
- Koller, W.N., Sykes, L. Y. (2023, March). Understanding and breaking the stigma in early psychosis. Workshop conducted as part of Specialized Treatment Early in Psychosis program, Connecticut Mental Health Center, New Haven, CT.

- Koller, W.N., Cannon, T. D. (2022, April). Paranoia is associated with reduced sensitivity to preceding contextual cues during mnemonic discrimination. Poster presented at the 2022 Congress of the Schizophrenia International Research Society, Florence, Italy.
- Koller, W.N., Ongchoco, J. D. K., Bronstein, Michael V., Scholl, B., Cannon, T. D. (2021, November). Events are remembered as having occurred more recently in paranoia. Poster presented at the 55th Annual Convention for the Association for Cognitive and Behavioral Therapies (virtual).
- **Koller, W.N.** (2021, November). Flipping the switch: Exploring the effects of contextual cues on memory performance in paranoia. Presentation given at Current Work in Clinical Psychology symposium, Yale University, New Haven, CT.
- Koller, W.N. (2021, February). Characterizing temporal source memory biases in paranoia. Presentation given at Current Work in Clinical Psychology symposium, Yale University, New Haven, CT.
- Koller, W.N., Cannon, T. D. (2020, April). Context-nonspecific familiarity and novelty detection deficits in subclinical paranoia. Poster presented at the 2020 Congress of the Schizophrenia International Research Society (virtual).
- Koller, W.N., Hampson, M. (2019, June). Time course of clinical change induced by neurofeedback. Presentation given at the 14th World Congress of Biological Psychiatry, Vancouver, BC.
- Koller, W. N., Hampson, M. (2019, January). Time course of clinical change following neurofeedback. Presentation given at Yale Child Study Center Research in Progress Seminar, New Haven, CT.
- Gruner, P., Koller, W. N., Anticivec, A., Pittenger, C. (2018, December). Aberrant causal reasoning in obsessivecompulsive disorder (OCD) - Preliminary findings. Poster presented at the 57th Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL.
- Koller, W. N., Rance, M., Eilbott, J., Gruner, P., Wasylink, S., Kichuk, S. A., Scheinost, D., Pittenger, C., & Hampson, M. (2018, September). Resting state connectivity predicts neurofeedback response in OCD. Poster presented at the 6th Biennial Conference on Resting State and Brain Connectivity, Montreal, QC, Canada.
- Koller, W. N. & Masland, S. R. (2018, April). Rethinking reappraisal: Evidence for a context-based model of cognitive reappraisal. Poster presented at the 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, LA.
- Rance, M., Gruner, P., Wasylink, S., Kichuk, S. A., Koller, W. N., Scheinost, D., Pittenger, C., & Hampson, M. (2017, November). Neurofeedback of the orbitofrontal cortex produces clinical improvement in obsessive-compulsive disorder (OCD) that grows over time. Poster presented at the Real-Time Functional Imaging and Neurofeedback Conference, Nara, Japan.
- Koller, W. N. & Masland, S. R. (2017, March). Subclinical depression, anxiety, and alexithymia: Implications for implicit and explicit regulation. Presentation given at the Mount David Summit at Bates College, Lewiston, ME.

# **RESEARCH EXPERIENCE**

### Clinical Neuroscience Lab Graduate Student (August 2019 -)

Yale University, Department of Psychology

*Principal Investigator: Tyrone D. Cannon, Ph.D.* 

- Independently designed, conducted, and analyzed studies exploring the association between memory biases and psychoticism using behavioral experiment design in Javascript; data analysis in R
- Developing research program focusing on the mechanisms of associative memory dysfunction across the psychosis spectrum

# Postgraduate Associate (August 2017 - July 2019)

Yale School of Medicine, Department of Radiology and Biomedical Imaging

Principal Investigator: Michelle Hampson, Ph.D.

- Member of small team running three clinical trials evaluating real-time fMRI neurofeedback as a treatment for OCD, PTSD, and Tourette Syndrome
- Performed structured clinical interviews (MINI, Y-BOCS, SCID-II); ran participants through MRI protocol on Siemens Magnetom Prisma 3T
- Negotiated contracts with third-party recruitment company; designed online recruitment and prescreening pipelines using Qualtrics, Facebook and Google advertisements
- Prepared manuscripts for publication by writing, editing, compiling feedback from multiple authors, and making figures
- Acquired 100+ hours of experience in fMRI data analysis, from preprocessing to group-level analyses done both manually and using shell scripting

# **Honors Thesis Student** (Fall 2016, Winter 2017)

Bates College, Psychology Department

Thesis Advisor: Sara Masland, Ph.D.

- Designed and conducted an empirical study examining the relationship between emotion regulation and alexithymia in individuals with depressive and anxious symptoms
- Used E-Prime, EKG, and Qualtrics surveys to run 100+ students through study protocol involving behavioral (emotional Stroop task) and psychophysiological (heart rate variability) measures
- Defended thesis to panel of examiners (including faculty external to Bates), was competitively selected for Honors based on thesis and performance in the Psychology major

# University of Vermont Wellness Environment Intern (Summer 2016)

University of Vermont

Principal Investigator: James J. Hudziak, M.D.

- Member of small team designing a longitudinal research project focused on technology-assisted wellness and behavior change in a residential student environment
- Conducted literature reviews, helped develop IRB research proposal; participated in app concept development

#### **CLINICAL EXPERIENCE**

#### Practicum Student (August 2022 – July 2023)

Connecticut Mental Health Center, Specialized Treatment Early in Psychosis Supervisor: Laura Yoviene Sykes, Ph.D.

- Provided outpatient cognitive behavioral therapy for psychosis (CBTp) and family therapy for adolescents and young adults with psychosis spectrum disorders and their parents/siblings
- Conducted intake assessments of psychosis risk, mental health history, and psychosocial factors
- Received supervision on case conceptualization, risk assessment, CBTp, and family therapy
- Led psychoeducational workshops for family members and general public

### **Graduate Student Clinician** (January 2020 – June 2022)

Yale University, Yale Psychology Department Clinic

Supervisors: Mary O'Brien, Ph.D. & Faith Prelli, Psy.D.

- Provided outpatient treatment for adult patients with a range of diagnoses (e.g., OCD, MDD, GAD) drawing from a variety of therapeutic techniques, including Cognitive Behavioral Therapy, Acceptance and Commitment Therapy, Dialectical Behavior Therapy, psychodynamic/relational therapies, Exposure and Response Prevention, and Cognitive Processing Therapy
- Conducted risk assessments for suicidal thoughts and behaviors
- Conducted intake assessments involving structured diagnostic interview (i.e., SCID-5).
- Received supervision on case conceptualization, risk assessment, and intervention

# TEACHING EXPERIENCE

### Teaching Fellow (2020-2022)

Yale University, Department of Psychology

- Clinical Neuroscience (Professor: Tyrone Cannon, Ph.D.)
- Clinical Psychology (Professor: Jutta Joormann, Ph.D.)
- Social Neuroscience (Professor: Molly Crockett, Ph.D.)
- Introduction to Psychology (Professor: Paul Bloom, Ph.D.)

### Teaching Assistant (2014-2016)

Bates College, Department of Psychology; Department of French and Francophone Studies

- Psychology Statistics (Professor: Amy Douglass, Ph.D.)
- French (Professor: Alexandre Dauge-Roth, Ph.D.)

### PROFESSIONAL SERVICE AND MENTORSHIP

# Yale Undergraduate Thesis Advisor (Fall 2021 - Spring 2023)

Yale University, Psychology Department

- Advised undergraduate students on projects involving secondary data analysis
- Facilitated completion of undergraduate thesis project, including independent data collection, data analysis in R, manuscript preparation, and submission to peer-reviewed journal

# Non-Resident Tutor (Fall 2022 - Spring 2023)

Harvard University, Cabot House

- Provided mentorship to undergraduate students re: psychology careers and statistics
- Led workshops focused on programming in R

# Yale Psychology "Sneak Peek" Mentor (Spring 2020 - Spring 2023)

Yale University, Psychology Department

- Provided in-depth, one-on-one mentorship in an immersive program for individuals from underrepresented backgrounds who are interested in pursuing a Ph.D. in Psychology
- Served as panel member in forum for applicants to Clinical Psychology programs

# Ph.D. "Mentor Match" Mentor (Spring 2020 - Spring 2021)

Remote Mentorship

 Offered ad-hoc mentorship to students from underrepresented backgrounds who are interested in pursuing a Ph.D. in Psychology

### Current Work in Clinical Psychology Coordinator (Fall 2020 - Spring 2021)

Yale University, Psychology Department

Organized and hosted weekly talk series focusing on current clinical research

# Yale Psychology Interview Weekend Coordinator (Spring 2020)

Yale University, Psychology Department

Planned and executed multi-day interview for dozens of prospective students

### OTHER WORK AND VOLUNTEER EXPERIENCE

### French Language Interpreter (Fall 2016 - Spring 2017)

Immigrant Legal Advocacy Program, Lewiston, ME

 Worked as an interpreter for a non-profit organization that provides legal aid to francophone asylum seekers from African countries

# **Individual Respite Service Provider** (Summer 2015)

Counseling Service of Addison County, Middlebury, VT

- Received on-site training in respite service techniques (e.g., conflict resolution, alliance-building)
- Worked one-on-one with adolescent client, providing daily care and supervision

### Residential Treatment Center Intern (Fall 2011)

L'Association du Champ de la Croix, Orbey, France

 Worked as a companion and assistant in a medical/educational residential treatment center for francophone individuals with developmental disabilities

### **SKILLS**

#### **Technical**

- Data analysis & visualization
  - o Proficient in R, SPSS, Excel
  - o Experience with fMRI analysis via BioImage Suite
- Programming
  - Experience with JavaScript, UNIX
- Questionnaire design and implementation
  - Proficient in Qualtrics, REDCap
- Behavioral task design & implementation
  - Experience with JSPsych, Pavlovia
- Reference management
  - o Proficient in EndNote

#### Clinical

- Clinical Interviewing
  - Structured Clinical Interview for DSM-5 (SCID)
  - Mini-International Neuropsychiatric Interview (MINI)
  - Structured Interview for Psychosis-Risk Syndromes (SIPS)/Scale of Psychosis Risk Symptoms (SOPS)
- Clinical Interventions
  - Cognitive Behavioral Therapy; Cognitive Behavioral Therapy for psychosis
  - Acceptance and Commitment Therapy
  - Psychodynamic/Relational Therapy
  - Dialectical Behavioral Therapy
  - o Exposure and Response Prevention
  - Family Focused Therapy for Clinical High Risk for Psychosis
  - Motivational Interviewing