# Kimberly S. Chiew

University of Denver Phone: 303-871-3721

Department of Psychology Email: kimberly.chiew@du.edu

Frontier Hall 2155 S. Race St.

Denver CO USA 80218

# **Employment**

2017-present **Assistant Professor** 

Department of Psychology

University of Denver

# **Education & Training**

2013-2017 Postdoctoral Fellow, Motivated Memory Lab

Center for Cognitive Neuroscience

**Duke University** PI: R. Alison Adcock

2013 Ph.D., Psychology, Washington University

Specialization: Brain, Behavior & Cognition

Cognitive, Computational, & Systems Neuroscience Pathway Dissertation Title: Emotion versus Motivation: Probing Dissociable Influences on Cognitive Control Through Task Performance,

Pupillometry Methods, and Individual Differences

Advisor: Todd S. Braver

2005 B.Sc.(Hons), Neuroscience, University of Toronto

**Graduated with Distinction** 

**Psychology Minor** 

# **Extramural Funding**

2018-2021 National Institutes of Health - NIMH 1R15MH117690-01

Role: Principal Investigator

Project Title: Beyond Reward: Approach and avoidance motivation generate functional contexts for cognitive control and adaptive

memory

Total Direct Costs: \$300,000 USD

2014-2017	Postdoctoral Fellowship, Canadian Institutes of Health Research (\$150,000 CDN).
2009-2012	Canada Graduate Scholarship, Doctorate Level, Natural Sciences and Engineering Research Council of Canada (\$63,000 CDN).
2008-2009	Canada Graduate Scholarship, Master's Level, Natural Sciences and Engineering Research Council of Canada (\$18,500 CDN)

# Awards & Honors

2017	Elected Fellow, Psychonomic Society
2017	Travel Award, Scientific Research Network on Decision Neuroscience and Aging Methodology Workshop
2015	Early Career Investigator Travel Award, Duke University Department of Psychiatry and Behavioral Sciences
2014-2015	Fellow, Preparing Future Faculty Program, Duke University Competitive professional development program preparing postdocs and senior graduate students for faculty roles in research, teaching, and service
2013	Travel Award, Mechanisms of Motivation, Cognition, & Aging Conference
2012	Dissertation Fellowship, Washington University
2012	Travel Award, Wisconsin Symposium on Emotion
2011	Fellow, NIMH Summer Institute in Cognitive Neuroscience
2011	Travel Award, Determinants of Executive Function and Dysfunction Conference, University of Colorado
2008-2010	Cognitive, Computational & Systems Neuroscience Trainee, McDonnell Centre for Systems Neuroscience
2007	University Fellowship, Washington University
2007	Ontario Graduate Scholarship (declined)

# **Publications**

# (Google Scholar h-index: 14)

#### Peer-Reviewed Journal Articles

- 1. Chiew, K.S., Hashemi, J., Gans, L.K., Lerebours, L., Clement, N.J., Vu, M.A., Sapiro, G., Heller, N.E., Adcock, R.A. (2018). Motivational valence alters memory formation without altering exploration of a real-life spatial environment. PLoS ONE. doi: 10.1371/journal.pone.0193506.
- 2. Chiew, K.S., Stanek, J.K., Adcock, R.A. (2016). Reward anticipation dynamics during cognitive control and episodic memory performance: implications for dopamine. Frontiers in Human Neuroscience. 10:555. doi: 10:3389/fnhum.2016.00555.
- 3. Chiew, K.S., Braver, T.S. (2016). Reward favors the prepared: incentive and taskinformative cues interact to enhance attentional control. Journal of Experimental Psychology: Human Perception and Performance. 42: 52-66.
- 4. Braver, T.S., Krug, M.K., Chiew, K.S., Kool, W., Clement, N.J., Adcock, R.A., Barch, D.M., Botvinick, M.M., Carver, C.S., Cools, R., Custers, R., Dickinson, A.R., Dweck, C.S., Fishbach, A., Gollwitzer, P.M., Hess, T.M., Isaacowitz, D.M., Mather, M., Murayama, K., Pessoa, L., Samanez-Larkin, G.R., Somerville, L.H., for the MOMCAI group. (2014). Mechanisms of motivation-cognition interaction: challenges and opportunities. Cognitive, Affective and Behavioral Neuroscience. 14: 443-72.
- 5. Chiew, K.S., Braver, T.S. (2014). Dissociable influences of reward motivation and positive emotion on cognitive control. Cognitive. Affective and Behavioral Neuroscience, 14: 509-29.
- 6. Zedelius, C.M., Veling, H., Custers, R., Bijleveld, E., Chiew, K.S., Aarts, H. (2014). A new perspective on human reward research: how consciously and unconsciously perceived reward information influences performance. Cognitive, Affective and Behavioral Neuroscience, 14: 493-508.
- 7. Chiew, K.S., Braver, T.S. (2013). Temporal dynamics of motivation-cognitive control interactions revealed by high-resolution pupillometry. Frontiers in Psychology 4:15. doi: 10.3389/fpsyg.2013.00015.
- 8. Chiew, K.S., Braver, T.S. (2011). Positive affect versus reward: emotional and motivational influences on cognitive control. Frontiers in Psychology 2:279. doi: 10.3389/fpsyg.2011.00279.
- 9. Chiew, K.S., Braver, T.S. (2011). Neural circuitry of emotional and cognitive

- conflict revealed through facial expressions. PLoS ONE 6(3): e17635. doi:10.1371/journal.pone.0017635.
- 10. Keightley, M.L., Chiew, K.S., Anderson, J.A.E., Grady, C.L. (2011). Neural correlates of recognition memory for emotional faces and scenes. Social. Cognitive, and Affective Neuroscience, 6: 24-37.
- 11. Chiew, K.S., Braver, T.S. (2010). Exploring emotional and cognitive conflict using speeded voluntary facial expressions. *Emotion*, 10: 842-854.
- 12. Savine, A.C., Beck, S.M., Edwards, B.G., Chiew, K.S., Braver, T.S. (2010). Enhancement of cognitive control by approach and avoidance motivational states. Cognition & Emotion, 24: 338-356.
- 13. Stevens, W.D., Hasher, L., Chiew, K.S., Grady, C.L. (2008). A neural mechanism for memory failure in older adults. Journal of Neuroscience, 28: 12820-4.
- 14. Chiew, K.S., Shepherd, H., Vardy, J., Tattersall, M.H.N., Butow, P.N., Leighl, N.B. (2008). Development and evaluation of a decision aid for patients considering firstline chemotherapy for metastatic breast cancer. Health Expectations, 11: 35-45.
- 15. Keightley, M.L., Chiew, K.S., Winocur, G., Grady, C.L. (2007). Age-related differences in brain activity underlying identification of emotional expressions in faces. Social, Cognitive, and Affective Neuroscience, 2: 292-302.
- 16. Vardy, J., Chiew, K.S., Galica, J., Pond, G.R., Tannock, I.F. (2006). Side effects associated with dexamethasone for prophylaxis of delayed emesis after moderately emetogenic chemotherapy. British Journal of Cancer, 94: 1011-5.

#### **Book Chapters & Other Contributions**

- 1. Chiew, K.S., Adcock, R.A. (in press). Motivated memory: integrating cognitive and affective neuroscience. To appear in K.A. Renninger, S. Hidi, (eds.) Cambridge Handbook of Motivation and Learning.
- 2. Chiew, K.S., Dickerson, K.C., Adcock, R.A. (2018). What is the added value in studying the brain for understanding emotion? In A.S. Fox, R.C. Lapate, A.J. Shackman, R.J. Davidson (eds.) The Nature of Emotion: Fundamental Questions (second edition). New York: Oxford University Press.
- 3. Chiew, K.S., Braver, T.S. (2017). Context processing and control in the human brain: from gating models to dual mechanisms. In T. Egner (ed.) The Wiley Handbook of Cognitive Control. Chichester, West Sussex: John Wiley & Sons.
- 4. Chiew, K.S., Braver, T.S. (2011). Monetary incentives improve performance. sometimes: speed and accuracy matter, and so might preparation. Comment on Dambacher et al. Frontiers in Psychology 2:325. doi: 10.3389/fpsyg.2011.00325

5. Leighl, N.B., Butow, P.N., Tattersall, M.H.N., Vardy, J., Chiew, K., McJannett, M., Shepherd, H. (2005). Facing a Treatment Decision: Decision Aid for Patients with Metastatic Breast Cancer Considering Chemotherapy. Workbook with audio recording produced for patient use at Princess Margaret Hospital, Toronto. Canada, and Royal Prince Alfred Hospital, Sydney, Australia.

### Manuscripts Submitted for Publication

- 1. Stanek, J.K., Dickerson, K.C., Chiew, K.S., Clement, N.J., Adcock, R.A. (invited revision). Expected reward value and reward uncertainty have temporally dissociable effects on memory formation. Journal of Cognitive Neuroscience.
- 2. Horne, A.J., Chiew, K.S., Zhuang, J., George, L.K., Adcock, R.A., Madden, D.J., Chen, N.K., Potter, G.G., Lad, E.G., Cousins, S.W., Lin, F.R., Mamo, S.K., Maciejewski, A.J., Fernandez, X.D., Whitson, H.E. (submitted). Things that make people happy: the role of sensory health, cognition, and neural factors in older adults' perceptions about subjective well-being. Journal of Aging Research.

# **Teaching & Mentoring**

## Instructor (Department of Psychology, University of Denver)

Proseminar in Affective Neuroscience (graduate) Introduction to Cognitive Neuroscience (undergraduate) Proseminar in Cognitive Neuroscience (graduate)

#### **Guest Lecturer**

2015	Introduction to Cognitive Neuroscience Department of Psychology & Neuroscience, Duke University
2015	Research Topics in Behavioral Neuroscience Department of Biology, North Carolina State University
2012	Cognitive Psychology Department of Psychology, Washington University
2010, 2012	Introduction to Psychology Department of Psychology, Washington University

#### **Teaching Assistant**

2012 Cognitive Psychology

Department of Psychology, Washington University

2010 Introduction to Psychology

Department of Psychology, Washington University

## **Program Assistant**

2011 C-SURE Program

> (summer undergraduate neuroscience research program) Departments of Psychology, Neuroscience, and Biomedical

Engineering, Washington University

## **Graduate Student Mentoring**

University of Denver Lyneé Herrera (2018-present)

### **Undergraduate Student Research Mentoring**

University of Denver Alex Boisvert, Brynn Dominice, Madison Eitniear, Avery

Gholston, Bailey Harris, Cory Vandenberg

**Duke University** Clara Colombatto, Daniel O'Connell, Meghan Drastal, Laura

Lerebours, Jacqueline Warren, Deeksha Malhotra, Katherine

Barnes, Natalia Espinosa

Washington University Sarah Schwartz, Shoko Otake, Julie Zhou, Bethany Edwards,

Renaldo Gacad, John Allman, Eric Sitterley, Lauren Patrick,

Alexandra Haserodt

# Invited & Symposium Talks

- 1. Chiew, K.S. (2018). Locomotive and exploratory contributions to motivated memory encoding in a complex real-life environment. Symposium talk presented at the Annual Meeting of the American Psychological Association (San Francisco. CA).
- 2. Chiew, K.S. (2018). Motivation-cognition interactions: timing, context, and implications for dopamine. Invited talk, Department of Psychology, Wake Forest University (Winston-Salem, NC).
- 3. Chiew, K.S. (2018). Motivated memory: what can we learn from cognitive neuroscience? Workshop talk presented at the Annual Meeting of the American Educational Research Association (New York, NY).
- 4. Chiew, K.S. (2018). Motivation-cognition interactions: timing, context, and implications for dopamine. Invited talk, Neuroscience Seminar Series, University of Wyoming (Laramie, WY).

- 5. Chiew, K.S. (2017). Motivation-cognition interactions: evidence from inside and outside the laboratory. Invited talk, Institute for Cognitive Science Colloquium Series, University of Colorado at Boulder (Boulder, CO).
- 6. Chiew, K.S. (2017). Motivated autobiographical memory: effects of valence and surprise on memory for the 2016 U.S. presidential election. Symposium talk, Annual Meeting of the Psychonomic Society (Vancouver, BC).
- 7. Chiew, K.S. (2017). Get ready: Timing and anticipation matter in motivationcognition interactions. Invited talk, Developmental Brown Bag Series, Department of Psychology, University of Denver (Denver, CO).
- 8. Chiew, K.S. (2017). Modulators of motivated anticipation: control and memory encoding outcomes. Symposium talk, Annual Meeting of the Association for Psychological Science (Boston, MA).
- 9. Chiew, K.S. (2016). Approach and avoidance motivation effects on human spatial exploration and learning in a real-life environment. Symposium talk, Annual Meeting of the North Carolina Cognition Group (Winston-Salem, NC).
- 10. Chiew, K.S. (2015) Considerations in the investigation of positive emotion and reward influences on cognitive control. Symposium talk, Annual Meeting of the European Society for Cognitive Psychology (Paphos, Cyprus).
- 11. Chiew, K.S. (2013). Emotional and motivational influences on cognitive control. Symposium talk, Annual Meeting of the Association for Psychological Science (Washington, DC).
- 12. Chiew, K.S. (2012). Emotional and motivational influences on cognitive control. Invited talk, Executive Function Seminar Series, University of Colorado at Boulder (Boulder, CO).
- 13. Chiew, K.S. (2012). Emotional and motivational influences on cognitive control. Invited talk, Center for Cognitive Neuroscience, Duke University (Durham, NC).
- 14. Chiew, K.S. (2010). Shifts in cognitive control dynamics during conflict processing under primary motivational incentives. Symposium talk, Show-Me Mental State Conference (St. Louis, MO).

## Selected Conference Posters

1. Chiew, K.S., Newson, A., Lerebours, L., Gans, L.K., Hashemi, J., Clement, N.J., Vu, M.A., Sapiro, G., Heller, N.E., Adcock, R.A. (2016) Approach and avoidance motivation modulate human spatial exploration and learning in a real-life environment. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society (New York, NY).

- 2. Chiew, K.S., Hashemi, J., Gans, L.K., Lerebours, L., Clement, N.J., Vu, M.A., Sapiro, G., Heller, N.E., Adcock, R.A. (2015). Motivational framing and individual differences modulate exploration behavior and subsequent memory for a museum exhibit on human responses to environmental issues. Poster presented at the Annual Meeting of the Association for Psychological Science (New York, NY).
- 3. Chiew, K.S., Braver, T.S. (2012, 2013). Positive affect versus reward: comparing emotional and motivational influences on cognitive control. Poster presented at the Annual Meeting of the Psychonomic Society (Minneapolis, MN) and the Mechanisms of Motivation, Cognition, & Aging Conference (Washington, DC).
- 4. Chiew, K.S., Gacad, R., Brown, T.B., Braver, T.S. (2012). Pupillometry reveals changes in cognitive control dynamics as a function of motivational incentives. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society (Chicago, IL) and Wisconsin Symposium on Emotion (Madison, WI).
- 5. Chiew, K.S., Braver, T.S. (2010, 2011). Influence of primary motivational incentives on sequential cognitive control adjustments. Poster presented at the Annual Meeting of the Psychonomic Society (St. Louis, MO) and Conference on Determinants of Executive Function & Dysfunction (Boulder, CO).
- 6. Chiew, K.S., Braver, T.S. (2010). Selective attention and conflict processing under primary incentives: evidence from the flanker task. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society (Montreal, QC).
- 7. Chiew, K.S., Edwards, B.G., Braver, T.S. (2009). Neural circuitry underlying emotional vs. cognitive conflict and control: facial expressions as a model behavior. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society (San Francisco, CA).
- 8. Chiew, K.S., Heaven, T.J., Braver, T.S. (2008). Facial EMG reveals top-down and bottom-up emotional interference in an adapted context processing task. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society (San Francisco, CA).
- 9. Chiew, K.S., Hongwanishkul, D., Happaney, K.R., Hayward, D., Zelazo, P.D. (2006). The U-shaped effect of working memory demand on affective decisionmaking as measured by the Iowa Gambling Task. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society (San Francisco, CA).

# Additional Research Experience

Research Assistant, Rotman Research Institute (PI: Cheryl L. Grady) 2005-2007 Behavioral and fMRI studies of cognitive aging

2004-2005	Research Assistant, Princess Margaret Hospital (PI: Natasha B. Leighl)  Quality-of-life issues and medical decision making in advanced cancer
2004-2005	Honors Thesis Student, University of Toronto (PI: Adam K. Anderson)  Neural correlates of mixed feelings
2003-2005	Independent Project Student, University of Toronto (PI: Philip D. Zelazo) Effects of dual-tasking on gambling task performance
2003	Research Assistant, Lakehead University (PI: Josephine Tan)  Access to and usage of mental health resources in the Canadian Arctic

## Professional Activities & Service

#### Review Editor

Frontiers in Psychology (Emotion Science): 2014-present

#### **Grant Review:**

Scientific Research Network on Decision Neuroscience and Aging Research Foundation Flanders (Belgian Foundation for Scientific Research) National Science Centre of Poland

#### Ad hoc Journal Review:

Acta Psychologica | Applied Cognitive Psychology | Biological Psychology | Brain Research | Cerebral Cortex | Cognition & Emotion | Cognitive, Affective and Behavioral Neuroscience | Cognitive Neurodynamics | Emotion | Frontiers in Human Neuroscience | Frontiers in Psychology | Journal of Cognitive Psychology | Journal of Experimental Psychology: General | Journal of Experimental Psychology: Learning, Memory, & Cognition | Journal of Neuroscience | Motivation & Emotion | NeuroImage | Neuropsychologia | PLoS ONE | Proceedings of the National Academy of Sciences | Psychological Research | Psychonomic Bulletin & Review | Psychophysiology | Quarterly Journal of Experimental Psychology

#### **Professional Memberships:**

Cognitive Neuroscience Society | Association for Psychological Science | Society for Neuroscience | Psychonomics Society

## Additional Professional Training

2013 Multi-Level Modeling, Workshop at the Annual Meeting of the Association for Psychological Science

2008 Science Communication for Neuroscientists, Washington University-

St. Louis Science Center Workshop Series (supported by the *Cognitive, Computational, & Systems Neuroscience* Pathway)

## **University and Community Service:**

University of Denver, Department of Psychology

2018-2019 Inclusive Excellence Coordinator

2017-2018 Faculty Search Committee (Affect-Social-Cognitive)

**Grant Writing Resources Working Group** 

Founder, Gender Issues in Science Discussion Group

**Duke University** 

2016-2017 Chair, Peer Mentor Program, Duke University Postdocs

Association

2014-2017 Duke University Brain Awareness Week

2015 Judge, North Carolina Science and Engineering Fair

Washington University

2008-2013 Neuroscience public outreach with St. Louis Science Centre, school

and community groups

2010-2012 Student Representative, Cognitive, Computational and Systems

Neuroscience Steering Committee, Washington University

2008-2009 Graduate Student Brown Bag Coordinator, Psychology Graduate

Students' Association, Washington University