Department of Psychology 108 E Dean Keeton St Austin TX 78712 email: desmond.ong@utexas.edu website: <u>cascoglab.psy.utexas.edu/desmond</u> github: <u>github.com/desmond-ong</u> Last Updated: December 2024

#### **Research Interests**

I am a cognitive scientist interested in affective and social cognition: how humans reason about the emotional and mental states of others. At a basic level, I distill insights from affective science and cognitive science into formal and precise models of reasoning about emotions and other mental states. At an applied level, I study how we can build computational and AI models that can perform such affective and social reasoning.

#### Education

- 2017 Ph.D., Psychology (Cognitive Psychology and Affective Science), Stanford University
- 2017 M.S., Computer Science (Specialization in Artificial Intelligence), Stanford University
- 2014 M.A., Psychology, Stanford University
- 2011 B.A., Economics (*summa cum laude*; top in class), and Physics (*magna cum laude*; top three in class), with minors in Cognitive Studies; and in Information Science, Cornell University

#### **Professional Appointments**

2022 –	Assistant Professor
present	Department of Psychology
	The University of Texas at Austin
	UT Research Center affiliations:
	2022 – present: Texas Behavioral Science and Policy Institute (TxBSPI)
2019 - 2022	Assistant Professor
	Department of Information Systems and Analytics
	School of Computing, National University of Singapore
	NUS Research Center affiliations:
	2019 – 2022: NUS Artificial Intelligence Lab;
	2020 – 2022: Institute for Applied Learning Sciences and Educational Technology (ALSET);
	2021 – 2022: Centre for Trusted Internet and Community; Institute of Data Science
2017 - 2022	Research Scientist
	Institute of High Performance Computing (IHPC),
	Agency for Science, Technology and Research (A*STAR), Singapore
	(From 2019–2022, I held a minority-time appointment at A*STAR)

#### Awards, Honors, Fellowships

- 2022 Best of IEEE Transactions on Affective Computing 2021 Paper Collection
- 2022 Faculty Teaching Excellence Award, National University of Singapore
- 2021 Best Paper Award, IEEE Affective Computing and Intelligent Interaction 2021
- 2015 Computational Social Science Fellowship, Institute for Research in the Social Sciences, Stanford
- 2014 Society for Personality and Social Psychology Graduate Student Travel Award

2012	National Science Scholarship: PhD (NSS-PhD)
	Agency for Science, Technology and Research (A*STAR), Singapore
	Funding period: 2012 – 2017 (Full tuition and stipend support for graduate studies.)

- 2011 Paul Hartman Prize in Applied Physics, Cornell Awarded for outstanding work in experimental physics by an undergraduate in Physics or Applied Physics.
- 2011 Omicron Delta Epsilon International Honor Society in Economics
- 2011 Phi Beta Kappa Honor Society in the Arts and Sciences
- 2011 A\*STAR Chairman's Honours List For outstanding academic performance
- 2009 Hunter R. Rawlings III Cornell Presidential Research Scholarship Funding period: 2009 – 2011 (*Undergraduate research scholarship with a research grant of \$5,000.*)
- 2006 National Science Scholarship: B.S. (NSS-BS) Agency for Science, Technology and Research (A\*STAR), Singapore Funding period: 2008 – 2011 (*Full tuition and stipend support for undergraduate studies.*)

#### **Research Grants**

9.	"Large Language Models and Digital Empathy"
	Research project funded by Microsoft Research's AI, Cognition, and the Economy (AICE)
	Accelerator Pilot Collaborations
	2023 - present. Role: Principal Investigator.

- "The ConnectTown: Building empathy and community through sharing experiences" Research project sponsored by Toyota Research Institute 2023 – present. Role: Principal Investigator.
- 7. "The "Other Me": Human-Centered AI Assistance In Situ" AI Singapore Research Grant Call (to PI: D. Hsu). 2021 – 2025. Role: Co-Principal Investigator (2021–2022), Collaborator (from 2022 after leaving NUS)
- "Developing Capabilities in AI Modelling of Social and Affective Behaviour" Ministry of Education Academic Research Fund Tier 1 (NUS Startup Grant) 2019 – 2022. Role: Principal Investigator
- 5. "Assistive AI with Artificial Theories of Mind and Body" AI Singapore Grant Call (to PI: H. Soh) 2019 – 2022. Role: Collaborator
- "Semantic and Map-lite Indoor Visual Navigation" National Robotics Programme (to PI: K.W. Wan) 2019 – 2021, extended to 2022. Role: Co-Investigator
- "Scalable Mindset Interventions to Nurture Strategic, Self-Regulated Learners" Singapore Millennium Foundation Grant (to PI: P. Chen) 2018 – 2021. Role: Interdisciplinary Collaborator
- "Human-Centric AI (CHEEM) Research Project" A\*STAR Science and Engineering Research Council (to Programme Managers K. Kwok, C. Tan) 2017 – 2020. Role: Work Package Lead
- 1. "Computational and brain predictors of emotion cue integration"

National Institutes of Health 1R01MH112560-01 (to PI: J. Zaki) 2017 – 2022. Role: Other Significant Contributor (key personnel)

## **Publications**

Links to sortable lists of publications (by discipline/topic), and associated code and data, can be found on my website. Italicized indicates primary trainee.

- 63. Pavlick, E., **Ong**, **D. C.**, Elyoseph, Z., Choudhury, M., Fast, N. J., & Nsoesie, E. O. (to appear). The Promise and Pitfalls of Generative AI for Psychology and Society. *Nature Reviews Psychology*. (All authors contributed equally; invited submission)
- 62. Hecht, C. A.\*, Ong, D. C.\*, Clapper, M., Jones, M., Demszky, D., Yang, D., Eichstaedt, J., Bryan, C. J., & Yeager, D. S. (accepted). Using Large Language Models in Behavioral Science Interventions: Promise and Risk. *Behavioral Science & Policy*.
  \* Equal Contribution
- 61. Doan, T., **Ong**, **D. C.**, & Wu, Y. (2024). Emotion understanding as third-person appraisals: Integrating appraisal theories with developmental theories of emotion. *Psychological Review*.
- 60. Yeo, G., & Ong, D. C. (2024). Associations Between Cognitive Appraisals and Emotions: A Meta-Analytic Review. *Psychological Bulletin*, 150(12), 1440–1471.
- 59. Kahhale, I., Barry, R. K., **Ong, D. C.,** Zaki, J., & Hanson, J. L., (2024). Exploring the Role of Empathy in the Association Between Early Life Adversity and Antisocial Behavior. *Affective Science*.
- Zhan, H., Zheng, A., Lee, Y. K., Suh, J., Li, J. J., & Ong, D. C. (2024). Large Language Models are Capable of Offering Cognitive Reappraisal, if Guided. In Proceedings of the 1st Conference on Language Modeling (COLM).
- 57. *Lee,* Y. K., Suh, J., Zhan, H., Li, J. J., & **Ong, D. C.** (2024). Large Language Models produce responses perceived to be empathic. In *Proceedings of the 12th IEEE International Conference on Affective Computing and Intelligent Interaction* (ACII).
- Ong, D C. (2024). GPT-ology, Computational Models, Existence Proofs: How should we think about LLMs in Cognitive Science? In *Proceedings of the 46th Annual Meeting of the Cognitive Science Society.*
- 55. *Gueorguieva, E. S.,* Lau, T., *Hadjiandreou, E.,* & **Ong, D. C.** (2024). The Language of an Empathy-Inducing Narrative. In *Proceedings of the 46th Annual Meeting of the Cognitive Science Society*.
- Ong, D. C., Zhi-Xuan, T., Tenenbaum, J. B., & Goodman, N. D. (2024). Probabilistic Programming versus Meta-Learning as Models of Cognition. *Behavioral and Brain Sciences*, 47, e158. (Commentary).
- Goel, S., Jara-Ettinger, J., Ong, D. C., & Gendron, M. (2024). Integration of facial and contextual cues in emotion inferences is limited and variable across categories and individuals. *Nature Communications*, 15, 2443.
- 52. Suh, J., Pendse, S. R., Lewis, R., Howe, E., Saha, K., Okoli, E., Amores, J., Ramos, G., Shen, J., Borghouts, J., Sharma, A., Paola, P., Friedman, L., Jackman, C., Benhalim, Y., Ong, D. C., Segal, S., Althoff, T., & Czerwinski, M. (2024). Rethinking Technology Innovation for Mental Health: Framework for Multi-Sectoral Collaboration. *Nature Mental Health*
- 51. Kade, S. A., du Toit, S. A., Danielson, C. T., Schweizer, S., Morrison, A. S., **Ong, D. C.**, Prasad, A., Holder, L. J., Han, J., Torok, M., & Wong, Q. J. J. (2024). Aberrant cognitive empathy in individuals with elevated social anxiety and regulation with emotional working memory training. *Cognition and Emotion*.

- Zhan, H., Ong, D. C., & Li, J. J. (2023). Evaluating Subjective Cognitive Appraisals of Emotions from Large Language Models. In *Findings of the Association for Computational Linguistics: EMNLP* 2023.
- Demszky\*, D., Yang\*, D., Yeager\*, D. S., Bryan, C. J., Clapper, M., Chandhok, S., Eichstaedt, J. C., Hecht, C., Jamieson, J., Johnson, M., Jones, M., Krettek-Cobb, D., Lai, L., JonesMitchell, N., Ong, D. C., Dweck<sup>^</sup>, C. S., Gross<sup>^</sup>, J. J., & Pennebaker<sup>^</sup>, J. W. (2023). Using Large Language Models in Psychology. *Nature Reviews Psychology*, 2, 688–701 \* equal contribution, <sup>^</sup> equal contribution
- 48. Genzer, S.\*, Ong, D. C.\*, Zaki, J., & Perry, A. (2022). Mu rhythm suppression over sensorimotor regions is associated with greater empathic accuracy. *Social Cognitive and Affective Neuroscience*, 17(9), 788–801.
  \* equal contribution
- Chen, P., *Teo, D. W. H.*, Foo, D. X. Y., Derry, H. A., Hayward, B. T., Schulz, K. W., Hayward, C., McKay, T. A., & Ong, D. C. (2022). Real-World Effectiveness of a Social-Psychological Intervention Translated from Controlled Trials to Classrooms. (*Nature*) *npj Science of Learning*, 7 (20).
- Goldenberg, A., Schone, J., Huang, Z., Sweeny, T. D., Ong, D. C., Brady, T. F., Robinson, M. M., Levari, D., Zaki, J., & Gross, J. J. (2022). Amplification in the Evaluation of Emotional Expressions Over Time. *Nature Human Behaviour*, 6(10), 1408–1416.
- 45. Houlihan, S. D., **Ong, D. C.**, Cusimano, M., & Saxe, R. (2022). Reasoning about the antecedents of emotions: Bayesian causal inference over an intuitive theory of mind. In *Proceedings of the 44th Annual Meeting of the Cognitive Science Society.*
- 44. Jospe, K., Genzer, S., Mansano, L., **Ong, D. C.**, Zaki, J., Soroker, N., & Perry, A. (2022). Impaired empathic accuracy following damage to the left hemisphere. *Biological Psychology*, 172, 108380.
- 43. Suresh, V., & Ong, D. C. (2022). Using Positive Matching Contrastive Loss with Facial Action Units to mitigate bias in Facial Expression Recognition. In *Proceedings of the 10th International Conference on Affective Computing and Intelligent Interaction (ACII 2022).*
- 42. Teo, D., Ang, Z. Y., & Ong, D. C., (2022). Modeling Causal Inference from Emotional Displays. In *Proceedings of the 44th Annual Meeting of the Cognitive Science Society.*
- Weisz, E., Chen, P., Ong, D. C., Carlson, R. W., Clark, M. D., & Zaki, J. (2022). A Brief Intervention to Motivate Empathy among Middle School Students. *Journal of Experimental Psychology: General*, 151(12), 3144–3153.
- Ong, D. C. (2021). An Ethical Framework for Guiding the Development of Affectively-Aware Artificial Intelligence. In *Proceedings of the 9th International Conference on Affective Computing and Intelligent Interaction (ACII 2021). [Oral Presentation]* [Best Paper Award]
- Ong, D. C., Asaba, M., *Lim, H. Y.*, Chen, P., & Gweon, H. (2021). "If only Santa had one more present": Exploring the development of near-miss counterfactual reasoning. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society.*
- Ong, D. C., Soh, H., Zaki, J., & Goodman, N. D. (2021). Applying Probabilistic Programming to Affective Computing. *IEEE Transactions on Affective Computing*, 12(2), 306–317.
   [Best of IEEE Transactions on Affective Computing 2021 Paper Collection]

Material from this paper was presented as a Tutorial at *Affective Computing and Intelligent Interaction*, in Cambridge, UK, September 2019, and at a Tutorial at A\*STAR, Singapore, June 2018.

37. Ong, D. C., Wu, Z., Zhi-Xuan, T., Reddan, M., Kahhale, I., Mattek, A., & Zaki, J. (2021). Modeling

emotion in complex stories: the Stanford Emotional Narratives Dataset. *IEEE Transactions on Affective Computing*, 12(3), 579–594.

- Chen, P.\*, Ong, D. C.\*, Ng, J., & Coppola, B. P. (2021). Explore, Exploit, and Prune in the Classroom: Strategic Resource Management Behaviors Predict Performance. *AERA Open*, 7(1), 1-14.
   \* equal contribution
- 35. Lai, Y., Kankanhalli, A., & **Ong, D. C.** (2021). Human-AI Collaboration in Healthcare: A Review and Research Agenda. In *Proceedings of the Hawaii International Conference on System Sciences* 2021.
- 34. Nguyen, T.-S., *Wu, Z., & Ong, D. C.* (2021). Attention Uncovers Task-Relevant Semantics in Emotional Narrative Understanding. *Knowledge-Based Systems*, 226, 107162.
- 33. Suresh, V., & Ong, D. C. (2021). Not all negatives are equal: Label-Aware Constrastive Loss for finegrained text classification. In *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021).*
- 32. Suresh, V., & Ong, D. C. (2021). Using Knowledge-Embedded Attention to Augment Pre-trained Language Models for Fine-Grained Emotion Recognition. In Proceedings of the 9th International Conference on Affective Computing and Intelligent Interaction (ACII 2021). [Oral Presentation]
- 31. *Teo, D., & Ong, D. C.* (2021). Learning from Agentic Actions: Modelling Causal Inference from Intention. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society.*
- 30. Weisz, E., **Ong, D. C.**, Carlson, R. W., & Zaki, J. (2021). Building Empathy: A Brief Intervention to Promote Social Connection. *Emotion*, 21(5), 990–999
- 29. *Wu, Z., & Ong, D. C.* (2021). Context-Guided BERT for Targeted Aspect-Based Sentiment Analysis. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 35(16), 14094–14102.
- 28. *Wu, Z., & Ong, D. C.* (2021). Pragmatically Informative Color Generation by Grounding Contextual Modifiers. In *Proceedings of the Society for Computation in Linguistics,* 4(54).
- 27. *Wu, Z.,* Kreiss, E., **Ong, D. C.,** & Potts, C. G. (2021). ReaSCAN: Compositional Reasoning in Language Grounding. In *Proceedings of the Neural Information Processing Systems Track on Datasets and Benchmarks (NeurIPS 2021).*
- Jospe, K., Genzer, S., Klein-Selle, N., Ong, D. C., Zaki, J. & Perry, A. (2020). The contribution of linguistic and visual cues to physiological synchrony and empathic accuracy. *Cortex*, 132, 296– 308.
- Wu, Z., Nguyen, T.-S., & Ong, D. C. (2020). Structured Self-Attention Weights Encodes Semantics in Sentiment Analysis. In Proceedings of the Third BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP, 255–264. (EMNLP 2020 Workshop)
- Zhi-Xuan, T., Soh, H., & Ong, D. C. (2020). Factorized Inference in Deep Markov Models for Incomplete Multimodal Time Series. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 34(06), 10334–10341. [Oral Presentation]
- 23. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (2019). Computational models of emotion inference in Theory of Mind: A review and roadmap. *Topics in Cognitive Science*, 11(2), 338–357.
- Asaba, M.\*, Ong, D. C.\*, & Gweon, H. (2019). Integrating expectations and outcomes: Preschoolers' developing ability to reason about others' emotions. *Developmental Psychology*, 55(8), 1680–1693.

\* equal contribution

- 21. *Tan, Z.-X., & Ong, D. C.* (2019). Bayesian Inference of Social Norms as Shared Constraints on Behavior. In *Proceedings of the 41st Annual Meeting of the Cognitive Science Society,* 2919–2925.
- 20. *Tan, Z.-X.\**, Goel, A.\*, Nguyen, T.-S.\*, & **Ong, D. C.** (2019). A Multimodal LSTM for Predicting Listener Empathic Responses over time. Presented at the *OMG-Empathy Challenge workshop at*

*the 14th IEEE International Conference on Automatic Face and Gesture Recognition (FG) 2019.* \* equal contribution

- 19. Wu, Z., Zhang, X., Zhi-Xuan, T., Zaki, J. & **Ong, D. C.** (2019). Attending to Emotional Narratives. In *Proceedings of the 8th International Conference on Affective Computing and Intelligent Interaction* (ACII 2019). [Oral Presentation]
- Xie, Y., Bodala, I. P., Ong, D. C., Hsu, D., & Soh, H. (2019). Robot Capability and Intention in Trustbased Decisions across Tasks. In *Proceedings of the 14th ACM/IEEE Conference on Human-Robot Interaction (HRI)*, 39–47.
- 17. **Ong, D. C.**, Goodman, N. D., & Zaki, J. (2018). Happier than thou? A self-enhancement bias in emotion attribution. *Emotion*, 18(1), 116–126.
- Williams, W. C., Morelli, S. A., Ong, D. C., & Zaki, J. (2018). Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. *Journal of Personality and Social Psychology*, 115(2), 224–254.
- Ong, D. C., Zaki, J., & Gruber, J. (2017). Increased cooperative behavior across remitted bipolar I disorder and major depression: Insights utilizing a behavioral economic trust game. *Journal of Abnormal Psychology*, 126(1), 1–7.
- Chen, P., Chavez, O., Ong, D. C., & Gunderson, B. (2017). Strategic Resource Use for Learning: A Self-administered Intervention that Guides Effective Resource Use Enhances Academic Performance. *Psychological Science*, 28(6), 774–785.
- Morelli, S. A., Ong, D. C., Makati, R., Jackson, M. O., & Zaki, J. (2017). Empathy and well-being correlate with centrality in different social networks. *Proceedings of the National Academy of Sciences*, 114(37), 9843–9847.
- 12. Ong, D. C.\*, Asaba, M.\*, & Gweon, H. (2016). Young children and adults integrate past expectations and current outcomes to reason about others' emotions. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*, 135–140.
  \* equal contribution
- 11. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (2016). Emotions in lay explanations of behavior. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*, 360–365.
- Devlin, H. C., Zaki., J., Ong, D. C., & Gruber, J. (2016). Tracking the emotional highs, but missing the lows: Hypomania Risk is associated with positively biased empathic accuracy inference. *Cognitive Therapy and Research*, 40(1), 72–79.
- Nook, E., Ong, D. C., Morelli, S. A., Mitchell, J. P., & Zaki, J. (2016). Prosocial Conformity: Social norms motivate broad generosity and empathy. *Personality and Social Psychology Bulletin*, 42(8), 1045–1062.
- 8. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (2015) Affective Cognition: Modeling reasoning about emotion. *Cognition*, 143. 141–162.
- 7. **Ong, D. C.**, Goodman, N. D., & Zaki, J. (2015). Near-misses sting even when they are uncontrollable. In *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*, 1775–1780.
- Phillips, J.\*, Ong, D. C.\*, Surtees, A. D. R., Xin, Y., Williams, S., Saxe, R., & Frank, M. C. (2015). A second look at automatic false belief representation: reconsidering Kovács, Téglás, and Endress (2010). *Psychological Science*, 26(9), 1353–1367.
  \* equal contribution
- Devlin, H. C., Zaki., J., Ong, D. C., & Gruber, J. (2014). Not as Good as You Think? Trait Positive Emotion is Associated with Increased Self-Reported Empathy but Decreased Empathic Performance. *PLOS ONE*, 9 (10), e110470

## Previous work in physics and optics

- 4. Leahy, B. D., Cheng, X., **Ong**, **D. C.**, Liddell-Watson, C., & Cohen, I. (2013) Enhancing rotational diffusion using oscillatory shear. *Physical Review Letters*, **110**, 228301.
- 3. **Ong**, **D. C.**, Solanki, S., Liang, X., & Xu, X. W. (2012). Analysis of laser speckle severity, granularity, and anisotropy using the power spectral density in polar-coordinate representation. *Optical Engineering*, **51**, 054301.
- 2. Gerbode, S. J., **Ong**, **D. C.**, Liddell, C. M., & Cohen, I. (2010). Dislocations and vacancies in twodimensional mixed crystals of spheres and dimers. *Physical Review E*, **82**, 041404.
- 1. Gerbode, S. J., Agarwal, U., **Ong, D. C.**, Liddell, C. M., Escobedo, F., & Cohen, I. (2010). Glassy dislocation dynamics in 2-D colloidal dimer crystals. *Physical Review Letters*, **105**, 078301.

## **Conference Symposia and Talks**

#### **Invited Conference Talks**

- 4. Invited Chair of a panel on "Ethical Affective Computing in Practice" at *Affective Computing and Intelligent Interaction ACII2023*
- 3. Affective Computing Preconference at the International Society for Research in Emotion (ISRE 2022). Los Angeles, July 2022.
- 2. Society for Affective Science (SAS 2022). Virtual, March 2022. "Critically examining the generalizability of facial expression recognition models."
- 1. Emotion Preconference at the Society for Personality and Social Psychology (SPSP 2021). Virtual, Feb 2021. "What can AI learn from Affective Science (and vice versa)?"

## **Organized Workshops and Preconferences**

 Affective Computing (AC@ISRE2024) (<u>https://sites.google.com/view/acisre2024</u>) Preconference at ISRE2024
 Organizers: Broekens, J., Girard, J., & Ong, D. C.

 Interdisciplinary Advanced in Affective Cognition (<u>https://affcog.github.io</u>) Workshop at CogSci2022
 Organizers: Wu, Y., **Ong, D. C.**, & Gweon, H. Contributed Workshop at CogSci 2021
 Speakers: Hyowon Gweon, Yang Wu, Desmond Ong, Eric Walle, Gyorgy Gergely, Daniel Dukes, Vanessa Lobue, Seth Pollak, Kara Weisman, Mark Thornton, Anat Perry, Rebecca Saxe

## **Chaired Conference Symposia**

 Symposium: Emotion and Social Perception in Naturalistic Contexts: Perspectives from Affective Computing and Affective Neuroscience.
 Chair: Ong, D. C. Co-chair: Reddan, M.
 Contributed symposium at the 2020 Society for Affective Science (SAS) Annual Conference, San Francisco, CA, April 2020. [Conference cancelled due to Covid-19]
 Speakers: Desmond Ong, Marianne Reddan, Eshin Jolly, Sidney D'Mello

**Ong, D. C.**, Wu, Z., Reddan, M., & Zaki, J. (April 2020). Using deep and probabilistic modelling to study emotional cue integration in naturalistic emotional narratives.

6. Symposium: How people think they're better than others and why it matters: consequences for social relationships, emotions, the courtroom, and online romance.

Chairs: **Ong**, **D. C**., & Hughes, B. L.

Contributed symposium at the Seventeenth Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA, January 2016.

- Speakers: Clayton Critcher, Desmond Ong, Mark Alicke, Emily Yeh
- **Ong, D. C.**, Goodman, N. D., & Zaki, J. (January 2016). Happier than thou: an egocentric positivity bias in emotion attribution. Talk given at the Seventeenth Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.
- 5. Symposium: Understanding Affective Cognition: Frontiers in modeling reasoning about others' emotions.

Chairs: Ong, D. C., Zaki, J., & Goodman, N. D.

Contributed symposium at the 36<sup>th</sup> Annual Meeting of the Cognitive Science Society, Quebec City, QC, Canada, July 2014.

Speakers: Amy Skerry, Desmond Ong, Yang Wu, Andrew Meltzoff

**Ong, D. C.**, Zaki, J., & Goodman, N. D. (July 2014). Modeling lay theories of emotion attribution. Talk given at the 36<sup>th</sup> Annual Meeting of the Cognitive Science Society, Quebec City, QC, Canada.

## **Contributed Conference Talks**

- 6. Weisz, E., **Ong, D. C.**, Chen, P., & Zaki, J. (Feb 2020). A Brief Intervention to Build Empathy in Middle School. Talk given by E. Weisz at the Society for Personality and Social Psychology Annual Convention 2020, New Orleans, LA.
- Chen, P. C., Chavez, O., Ong, D. C., & Gunderson, B. (May 2018). Strategically-Directed Effort: Self-Reflective Resource Use Promotes Better Academic Outcomes. Talk given by D. C. Ong at the 11<sup>th</sup> Meeting of the Society for the Science of Motivation, San Francisco, CA.
- 4. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (April 2017). Towards studying affective cognition in naturalistic contexts. Talk given at the Affective Computing Pre-Conference, at the Society for Affective Science Annual Conference, Boston, MA.
- Ong, D. C., Goodman, N. D., & Zaki, J. (July 2015). Near-misses sting even when they are uncontrollable. Talk given at the 37<sup>th</sup> Annual Meeting of the Cognitive Science Society, Pasadena, CA.
- Ong, D. C., Zaki, J., & Goodman, N. D. (February 2015). Modeling lay theories of emotion attribution. Talk in symposium ("Beliefs About Emotion: Outcomes at the Individual, Interpersonal, and Cultural Levels") at the Sixteenth Annual Meeting of the Society for Personality and Social Psychology, Long Beach, CA.
- 1. **Ong, D. C**, Goodman, N. D., & Zaki, J. (February 2014). Differences in intuitive theories of emotion along psychological distance. Talk given at the Emotion Preconference of the Fifteenth Annual Meeting of the Society for Personality and Social Psychology, Austin, TX.

# **Invited Talks**

- 10. May 2025. Management & Operations Department, Kellogg School of Management, Northwestern University.
- 9. August 2024. Institute for Pedagogical Innovation, Research, & Excellence. Nanyang Technological University, Singapore. [*publicized to whole University*]
- 8. July 2024. Center for Research in Child Development. National Institute of Education, Singapore.
- 7. November 2023. Psychology Department Colloquium, Cal State University, Northridge (CSUN).
- 6. October 2022. Microsoft Research. [*publicized to whole organization*]

- 5. February 2022. Ministry of Education School Cluster N5 Meeting, Singapore.
- 4. February 2020. Social Cognitive Neuroscience Lab Meeting, Department of Brain and Cognitive Sciences, MIT.
- 3. June 2019. Probabilistic Machine Learning Seminar, Uber AI Labs, San Francisco, USA.
- 2. April 2017. Computational Cognitive Neuroscience/Moral Psychology Research Lab Meeting, Department of Psychology, Harvard University
- 1. August 2013. Positive Emotion and Psychopathology Lab Meeting, Department of Psychology, Yale University

## At own institution

- 12. February 2024. College of Liberal Arts Research Week, UT Austin
- 11. October 2023. Texas Robotics Symposium Panelist. UT Austin.
- 10. October 2022. Developmental Area Seminar, Department of Psychology, UT Austin.
- 9. October 2022. Social/Personality Area Seminar, Department of Psychology, UT Austin.
- 8. February 2022. Invited Keynote Panelist on NUS Symposium on Artificial Intelligence Education, National University of Singapore
- 7. May 2020. Institute for Applied Learning Sciences and Educational Technology, National University of Singapore.
- 6. April 2016. Affective Area Seminar, Department of Psychology, Stanford University
- 5. March 2016. Cognition and Neuroscience Area Seminar, Department of Psychology, Stanford University
- 4. February 2015. Affective Area Seminar, Department of Psychology, Stanford University
- 3. January 2015. Affective Area Seminar, Department of Psychology, Stanford University
- 2. October 2013. Affective Area Seminar, Department of Psychology, Stanford University
- 1. April 2013. Cognition and Neuroscience Area Seminar, Department of Psychology, Stanford University

## **Teaching Experience**

The University of Texas at Austin, Department of Psychology

- PSY 371Q: Text Analysis for Behavioral Data Science (upper-division undergraduate elective) [https://cascoglab.psy.utexas.edu/desmond/teaching/textAnalysis] Spring 2025; Spring 2024\*; Spring 2023\* [first two offerings under course number PSY 341K]
- PSY 371Q: Ethics in Behavioral Data Science (upper-division undergraduate elective) [https://cascoglab.psy.utexas.edu/desmond/teaching/ethics] Fall 2024; Fall 2023\*; Spring 2023\* [first two offerings under course number PSY 341K]

National University of Singapore, Department of Information Systems and Analytics

 IS4152 / IS5452: Affective Computing (Final-year undergraduate elective / Masters elective). [https://is4152.github.io/]

Semester 1, AY 2021/2022 Semester 1, AY 2020/2021

1. BT1101: Introduction to Business Analytics (First-year undergraduate statistics; taught in *R*).

Semester 1, AY 2021/2022. Enrolment: 350 Semester 2, AY 2020/2021. Enrolment: 120 Semester 1, AY 2019/2020. Enrolment: 280

## Pre-tenure-track Teaching Assistant experience

Stanford University, Department of Psychology

- 5. Psych 204: Computation and Cognition: The Probabilistic Approach (Graduate), Spring 2015. Instructor: Noah Goodman
- 4. Psych 254: Lab in Experimental Methods (Graduate), Winter 2015. Instructor: Michael Frank
- 3. Psych 90: Intro to Clinical Psychology (Undergraduate), Fall 2014. Instructor: Ian Gotlib
- Psych 80: Intro to Personality and Affective Science (Undergraduate), Spring 2014. Instructor: Jeanne Tsai
- Psych 1: Intro to Psychology (Undergraduate); Fall 2013, Winter 2014. Instructor: James Gross, Jamil Zaki, Bridgette Hard

#### Tutorials

- **Ong, D. C.**, Tan, Z.-X., Soh, H., Zaki, J., & Goodman, N. D. (2019). "Integrating Theory-Driven and Data-Driven Approaches to Affective Computing via Deep Probabilistic Programming". Tutorial taught at *Affective Computing and Intelligent Interaction*, Cambridge, UK, September 2019.
- Ong, D. C., & Goodman, N. D. (2018). "Applying Probabilistic Programming to building Human-Centric AI Technologies". Tutorial co-taught with Noah Goodman, at A\*STAR, June 2018

## **Advising and Mentorship**

#### Postdoctoral scholar advising

Eliana Hadjiandreou. 2024 - present.

#### Graduate student advising

Mona Xue (UT Ph.D. Student in Psychology). 2024 – present Emma Gueorguieva (UT Ph.D. Student in Psychology). 2023 – present

Varsha Suresh (NUS Ph.D. Student in Computer Science). 2020 – 2023, graduated May 2023. Dennis Teo (NUS Ph.D. Student in Information Systems and Analytics) 2020 – 2022. Phoebe Chua (NUS Ph.D. Student in Information Systems and Analytics) 2020 – 2022. Gerard Yeo (NUS Ph.D. Student in Data Science). 2021 – 2022.

<u>Wu</u> Zhengxuan (Stanford Masters Student in Symbolic Systems). Mar 2018 – Aug 2022. Currently: Ph.D. student in CS at Stanford

#### Full-time Research Assistants (and equivalent)

Purna Zaman (UT Lab Coordinator), July 2023 – present <u>Lim</u> Hui Yan (NUS Full-Time Research Assistant), Aug 2020 – May 2022. <u>Tan</u> Zhi-Xuan (A\*STAR post-baccalaureate Research Engineer), Jun 2018 – Aug 2019. Currently: Ph.D. Student at MIT EECS & Brain and Cognitive Sciences; Open Phil AI Fellow

#### Honors Thesis / Final Year Projects (FYP) Students

Emily Jia-Xun Yang (UT Psychology Honors Thesis, Jan 2023 – Dec 2023) Kong Yan San (NUS Business Analytics undergraduate, FYP, Aug 2020 – May 2021)

\*Yan San won the SoC Outstanding Computing Project Prize AY2020/2021 Darren Lee (NUS Computer Science undergraduate, FYP, Aug 2020 – May 2021) Terence Lim (NUS Business Analytics undergraduate, FYP, Aug 2019 – May 2020)

## \*Terence won the NUS Outstanding Undergraduate Researcher Prize AY2019/2020

## Interns / Summer Students

Joseph Kwon (Yale undergraduate, Jun 2020 - Aug 2020; now Lab Manager at MIT) <u>Ng</u> Hui Xin (Vassar graduate, Jan 2019 - Aug 2019; now Ph.D. Student at UC San Diego) <u>Lu</u> Hui (Columbia undergraduate, Jun 2019 - Aug 2019) Rucha Kelkar (MIT undergraduate, Jun 2019 - Aug 2019) <u>Pu</u> Ruohan (Cambridge undergraduate, Jul 2019 - Aug 2019)

## Ph.D. Dissertation Committees

Hongli Zhan (UT Linguistics) Nyx Ng (UT Psychology) Shaina Munin (UT Psychology) Hannah Lunkenheimer (UT Psychology) Ajna Kertesz (UT Psychology)

Yejin Cho (UT Linguistics) Alexis Smith-Flores (UC San Diego Psychology)

<u>Luo</u> Kai (NUS Information Systems and Analytics, graduated 2020) <u>Yin</u> Jiamin (NUS Information Systems and Analytics) <u>Vo</u> Thanh Vihn (NUS Computer Science, graduated 2022) <u>Guo</u> Yutong (NUS Information Systems and Analytics) <u>Zheng</u> Chenxu (NUS Information Systems and Analytics, graduated 2022)

## **Professional Service**

#### National-Level Service

Member, Technical Advisory Group, National Robotics Programme, Singapore, 2021–2022 Contributor, Foundational Research Capabilities (FRC) report on General AI, 2022 (subtopic: Affective Computing), commissioned by the National Research Foundation, Singapore.

<u>Professional Societies and Conferences</u> Bolded indicate significant effort

The Cognitive Science Society (CogSci) Society Conference Committee, 2023 – present

> **Conference Co-Chair, CogSci 2023** Communications Chair, CogSci 2020 (Senior) Program Committee Member (i.e., meta-reviewer), CogSci 2020–2022

The Association for the Advancement of Affective Computing (AAAC), and the annual conference, IEEE Affective Computing and Intelligent Interaction (ACII)

AAAC Management Board, 2024 - present [elected to a 6-year term]

Reviewer, AAAC Dissertation Award, ACII 2024 Conference Ethics Chair, ACII 2023 **Program Committee Co-Chair, ACII 2022** Workshop and Special Track Co-Chair, and Senior Program Committee Member, ACII 2021

<u>Institutional Academic Service</u> *At the National University of Singapore* School Ethics Review Committee, School of Computing, 2019–2022

Publicity Committee, Department of Information Systems and Analytics, 2021–2022 Graduate Admissions, Department of Information Systems and Analytics, 2019–2022

At Stanford University Faculty Search Committee, Cognitive Area, Department of Psychology, 2014–2015 Graduate Admissions Committee, Affective Science Area, Department of Psychology, 2013–2014 Area Seminar Committee, Department of Psychology: Cognitive Area, 2014-2015 & Affective Science Area, 2013-2014 **Reviewing activities** Associate Editor, Cognitive Science, 2023-present Board of Reviewers, Cognitive Science, 2021–2024 Guest Editor, IEEE Transactions on Affective Computing, 2023 Ad-hoc reviewer: Grant Agencies: U.S. National Science Foundation (NSF); U.S. Army Research Office (ARO); Natural Sciences and Engineering Research Council (NSERC) of Canada; Social Sciences and Humanities Research Council (SSHRC) of Canada; Israel Science Foundation (ISF) Journals: Nature Communications; Nature Reviews Psychology; Psychological Science; Psychological Review; Trends in Cognitive Science; Cognition; Cognitive Science; Cognitive Psychology; Emotion; Journal of Experimental Psychology: General; Perspectives on Psychological Science; Developmental Psychology; Social Psychological and Personality Science; British Journal of Psychology; IEEE Transactions on Affective Computing; IEEE Transactions on Cybernetics; Computer Speech and Language; Journal of Neuroscience, Psychology, and Economics; Optical Engineering Cognitive Science / Psychology Conferences: Cognitive Science Society (CogSci 2015–2024), Society for Philosophy and Psychology (SPP 2016), International Society for Research in Emotions (ISRE 2022), Society for Affective Science (SAS 2023, 2024) Computer Science Conferences: Human-Robot Interaction (HRI 2019-2021), Association for the Advancement of Artificial Intelligence (AAAI 2019), Empirical Methods in Natural Language Processing (EMNLP 2015, 2020) \*nominated as an Outstanding Reviewer for EMNLP2020 International Conference on Robotics and Automation (ICRA 2021) Information Systems Conferences: International Conference on Information Systems (ICIS 2020) ACM Computer-Supported Cooperative Work and Social Computing (CSCW 2021) Other relevant service activities

2021–present: I am part of the Ethics Committee of a non-profit, <u>The Hume Initiative</u>, where we are interested in charting an ethical path for empathic AI.

#### References

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June Gruber Associate Professor of Psychology University of Colorado Boulder Muenzinger Psychology University of Colorado Boulder Boulder, CO 80309-0345 june.gruber@colorado.edu

Christopher Potts Professor of Linguistics Director, Center for the Study of Language and Information Stanford University Department of Linguistics Margaret Jacks Hall, Building 460 Stanford, CA 94305 cgpotts@stanford.edu