

**Curriculum Vitae**  
**William Xiang Quan Ngiam**

Department of Psychology  
 Biopsychological Research Building  
 University of Chicago  
 United States  
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**Employment**

2019 – present     **Postdoctoral Research Fellow**  
 University of Chicago (with Professor Edward Awh and Professor Edward Vogel)

**Education**

2015 – 2019     **Doctor of Philosophy** in Psychology  
 University of Sydney (Supervisor: Professor Alex Holcombe)  
 2011 – 2014     **Bachelor of Psychology (Honours)**  
 University of Sydney (Supervisor: Dr Patrick Goodbourn)

**Teaching and Professional Experience**

**Research**

2017     **Statistical Assistant/Programmer** on University of Sydney Strategic Education Grant/Educational Innovation Grant; *Using interactive learning to integrate statistical theory with contemporary research practices*  
 2017 – 2018     **Research Assistant** on University of Sydney Faculty of Science/Seed Funding; *The development of attentional control in children with and without anxiety*

**Teaching**

Summer 2018     **Lecturer** for Science and Statistics in Psychology - Introduction to Psychology (PSYC1001), *University of Sydney*  
 2015 – 2018     **Teaching Assistant** for Statistics and Research Methods for Psychology (PSYC2012), *University of Sydney*  
 2015, 2017     **Teaching Assistant** for Advanced Statistics for Psychology (PSYC3010), *University of Sydney*  
 2016     **Teaching Assistant** for Research Methods in Honours Psychology, *University of Sydney*

**Miscellaneous**

2021, 2022     **Organizer** of the Working Memory Symposium  
 2020 – present     **Founder and Organizer** of the University of Chicago ReproducibiliTea Journal Club  
 2021 – present     **Steering Committee** member of ReproducibiliTea  
 2022 – present     **Editor-in-Chief** of the Journal for Reproducibility in Neuroscience

## **Honours and Awards**

2022	<b>Invited Contributor to Catalyzing Communities of Research Rigor</b> – <i>National Institutes of Health</i>
2021	<b>ONU Centennial Trust Recipient</b> – <i>Newington College</i>
2015 – 2019	<b>Research Training Program (RTP)</b> – <i>Australian Government Department of Education and Training</i>
2015 – 2019	<b>Merit Award</b> – <i>University of Sydney</i>
2017	<b>PsychFEST Award</b> – <i>University of Sydney</i>
2016	<b>Endeavour Research Fellowship</b> – <i>Australian Government Department of Education and Training</i>
2014	<b>APS Prize</b> – <i>Australian Psychological Society</i>

## **Publications**

**Ngiam, W.X.Q.**, Foster, J.J., Adam, K.C.S., Awh, E. (under review). A signature of guessing supports an item limit in visual working memory.

**Ngiam, W.X.Q.**, Loetscher, K.B., Vogel, E.K., Awh, E. (in prep). Item-based storage revealed by whole-report for dual-feature stimuli.

**Ngiam, W.X.Q.** (2021). Fully Credited: Making Publishing More Equitable. *APS Observer*, 35.

**Ngiam, W.X.Q.**, Adam, K.C.S., Quirk, C., Vogel, E.K., Awh, E. (2021). Estimating the statistical power to detect set size effects in contralateral delay activity. *Psychophysiology*, 58:e13791.

<https://doi.org/10.1111/psyp.13791>

**Ngiam, W.X.Q.**, Brissenden, J.A., Awh, E. (2019) “Memory compression” effects in visual working memory are contingent on explicit long-term memory. *Journal of Experimental Psychology: General*, 148(8), 1373. <https://doi.org/10.1037/xge0000649>

**Ngiam, W.X.Q.**, Khaw, K.L.C., Holcombe, A.O., Goodbourn, P.T. (2019). Visual working memory for letters varies with familiarity but not complexity. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 45(10), 1761-1775. <https://doi.org/10.1037/xlm0000682>

Goodbourn, P.T., Livesey, E.J., **Ngiam, W.X.Q.**, Holcombe, A.O., Forte, J.D. (in prep.). Learning new symbolic representations of number.

Bateman, J.E., Birney, D. P., **Ngiam, W.X.Q.** (2018). Relational encoding in visual working memory: Change detection performance is better for violations in group relations. *PLOS ONE* 13(9): e0203848. <https://doi.org/10.1371/journal.pone.0203848>

## **Conference Talks**

**Ngiam, W.X.Q.** Best practices with preregistration (2022, May). *Open Science Workshop at 22<sup>nd</sup> Annual Meeting of the Vision Science Society*, Florida, United States.

**Ngiam, W.X.Q.** Open Science: a vision for a fair and equitable science. (2021, November). *Equity in Vision Science panel at OPAM29*, virtual.

**Ngiam, W.X.Q.**, Adam, K.C.S., Quirk, C.T., Vogel, E.K., Awh, E. (2020, June). Power for detecting the presence of set size differences in the contralateral delay activity. *Virtual Working Memory Symposium*.

**Ngiam, W.X.Q.**, Khaw, K.L.C., Holcombe, A.O., Goodbourn, P.T. (2018, April). Training recognition familiarity does not improve visual working memory performance. *45<sup>th</sup> Annual Conference of the Australasian Society for Experimental Psychology*, Hobart, Australia.

**Ngiam, W.X.Q.**, Brissenden, J.A., Awh, E. (2017, April). Enhancing visual working memory performance using statistical regularities requires explicit awareness. *44<sup>th</sup> Annual Conference of the Australasian Society for Experimental Psychology*, Newcastle, Australia.

### **Conference Posters**

**Ngiam, W.X.Q.**, Loetscher, K., Vogel, E.K., Awh, E. (2022, May). Evidence for object-based encoding into visual working memory. *22<sup>nd</sup> Annual Meeting of the Vision Sciences Society*, Florida, United States.

**Ngiam, W.X.Q.**, Loetscher, K., Vogel, E.K., Awh, E. (2020, November). Item-based storage limits revealed by whole-report for dual-feature stimuli. *61<sup>st</sup> Annual Meeting of the Psychonomic Society*, online.

**Ngiam, W.X.Q.**, Adam, K.C.S., Quirk, C., Vogel, E.K., Awh, E. (2020, November). Estimating the statistical power to detect set-size effects in the contralateral delay activity. *Object, Perception, Attention and Memory*, online.

**Ngiam, W.X.Q.**, Loetscher, K., Vogel, E.K., Awh, E. (2020, May). Object-based memories revealed by whole-report for dual-feature stimuli. *20<sup>th</sup> Annual Meeting of the Vision Sciences Society*, online.

**Ngiam, W.X.Q.**, Brissenden, J.A., Awh, E. (2019, November). “Memory compression” effects in visual working memory are contingent on explicit long-term memory. *60<sup>th</sup> Annual Meeting of the Psychonomic Society*, Montreal, Canada.

**Ngiam, W.X.Q.**, Awh, E., Holcombe, A. O. (2019, May). Examining the effects of memory compression with contralateral delay activity. *19<sup>th</sup> Annual Meeting of the Vision Sciences Society*, Florida, United States.

**Ngiam, W.X.Q.**, Khaw, K.L.C., Holcombe, A. O., Goodbourn, P.T. (2018, November). Training recognition familiarity is insufficient to improve visual working memory. *59<sup>th</sup> Annual Meeting of the Psychonomic Society*, New Orleans, United States.

**Ngiam, W.X.Q.**, Brissenden, J.A., Awh, E. (2017, May). Memory compression using statistical regularities requires explicit awareness. *17<sup>th</sup> Annual Meeting of the Vision Sciences Society*, Florida, United States.

**Ngiam, W.X.Q.**, Goodbourn, P.T. (2016, November). Familiarity, but not visual complexity, affects letter encoding in visual working memory. *57<sup>th</sup> Annual Meeting of the Psychonomic Society*, Boston, United States.

**Ngiam, W.X.Q.**, Goodbourn, P.T. (2015, April). Encoding and capacity limits of visual working memory are not set by stimulus complexity. *42<sup>nd</sup> Annual Conference of the Australasian Society for Experimental Psychology*, Sydney, Australia.

### **Journals Reviewed For**

*Journal of Experimental Psychology: Learning, Memory and Cognition; Journal of Experimental Psychology: Human Perception and Performance; Quarterly Journal of Experimental Psychology; Memory; Nature Scientific Reports; Memory and Cognition; PLoS One; Psychological Research; Neuroanatomy and Behaviour; Attention, Perception & Psychophysics; Neuroimage; eNeuro; Psychophysiology*