# Amy S. Finn

*Curriculum Vitae*


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| Position: | Assistant Professor |
| Address: | University of Toronto<br>Department of Psychology<br>100 St. George Street, Room 4002<br>Toronto, ON, M5S 3G3 |
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## Education

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| Postdoc | Massachusetts Institute of Technology, 2015<br>Department of Brain and Cognitive Science<br>Advisor: John D. E. Gabrieli |
| Ph.D. | University of California, Berkeley, 2010<br>Psychology: Cognition Brain & Behavior<br>Advisors: Carla L. Hudson Kam & Mark D'Esposito<br>Dissertation: *The sensitive period for language acquisition: The role of age related differences in cognitive and neural function* |
| B.A. | University of Wisconsin—Madison, 2002<br>Psychology, English<br>Advisor: Jenny R. Saffran<br>Honors Thesis: *Investigating less is more: Differences in learning morphology and word segmentation in children and adults.* |

## Research Interests

Developmental cognitive neuroscience, learning mechanisms, memory, mechanisms for language acquisition, academic learning, the relationship between brain development and learning, the role of input/experience/plasticity for learning outcomes

## Grants

2016 – 2021 **Natural Sciences and Engineering Research Council of Canada (NSERC)**
Summary: Research Tools and Instruments program; *Enhanced communication during brain imaging of children and older adults: Cognitive neuroscience of memory across the lifespan*
Role: Co-investigator Total: $58,000

2018 -2019 **Connaught New Researcher Award**
Summary: *What children remember and why: How attention can predict developmental shifts in the nature of memory.*
Role: PI Total: $35,000 (direct costs)

2017 – 2021 **Social Sciences and Humanities Research Council of Canada (SSHRC)**
Summary: Insight Program; *How does social status impact achievement?: Unpacking developmental changes in learning systems*
Role: PI Total: $145,696 (direct costs)

2016 – 2021 **Natural Sciences and Engineering Research Council of Canada (NSERC)**
Summary: Discovery program; *Learning in the developing mind and brain*
Role: PI Total: $125,000 (direct costs)

2015 - 2017 **Canada Foundation for Innovation (CFI),** John Evans Leaders Fund program
Summary: *Developmental cognitive neuroscience infrastructure*
Role: PI Total: $140,000 (direct costs)

2015 - 2017 **Ontario Research Fund (ORF)**
Summary: *Brain development, memory systems and learning outcomes*
Role: PI Total: $140,000 (direct costs)

2015 - 2019 **Internal International Postdoc grant**
Summary: *Cognitive neuroscience of learning and development*
Role: Co-PI Total: $40,000 (direct costs)

2013 **Spencer Foundation**
Summary: *Enhancing Cognitive Skills in Charter School Students*
Role: Co-investigator Total: $50,000

2013 **Center for Advanced Study of Language (CASL)**
Summary: *Predicting Success in Adult Language Learning*
Role: Co-investigator Total: $80,000

2012 **Department of Defense, Intelligence Advanced Research Projects Activity**
Summary: *"Predicting Adults' Language Learning from Pre-Learning MRI and Cognitive Measures"* (IARPA: BAA-10-09)
Role: Co-investigator Total: $200,000

2011 **National Institute of Mental Health (NIMH)**
Summary: *Ruth L. Kirschstein National Research Service Award (NRSA)*
Role: PI Total: $175,000

2010 **Elizabeth Roboz Einstein Fellowship**
Summary: Neurosciences and Human Development; University of California, Berkeley
Role: awardee Total: $5,000

2008 **Elizabeth Roboz Einstein Fellowship**
Summary: Neurosciences and Human Development; University of California, Berkeley
Role: awardee Total: $5,000

2007 **Elizabeth Roboz Einstein Fellowship**
Summary: Neurosciences and Human Development; University of California, Berkeley
Role: awardee Total: $5,000

2006-2008 **National Science Foundation Graduate Research Fellowship**
Summary: *Understanding the sensitive period for language acquisition: differences in cognitive capacity*
Role: awardee Total: $90,000

**Publications (peer reviewed)** * *indicates trainee author, ℘ indicates equal contributions*

**2020**

*Decker, A.L., Duncan, K. ℘, **Finn, A.S.** ℘, & Mabbott, D.J. ℘ (in press, *Nature Communications*). *Income-related gaps in children's cognition mediated by anterior not posterior hippocampus*.

*Decker, A.L., **Finn, A.S.** ℘, & Duncan, K. ℘ (in press, *Cognition*). Errors induce arousal that impairs subsequent memory formation, *Cognition*

*Forest, T. A., **Finn, A.S.** & Schlichting, M.L. (in press). What is represented in memory after statistical learning? *Proceedings of the 42nd Annual Meeting of the Cognitive Science Society*.

**2019**

*Kalra, P.B., Gabrieli, J.D.E., & **Finn, A.S.** (2019). Evidence of Stable Individual Differences in Implicit Learning. *Cognition*, 190, 199-211.

Leonard, J.A., Romeo, R.R., Park, T.A., Takada, M., Robinson, S.T., Grotziner, H., **Finn, A.S.,** Gabrieli, J.D.E., & Mackey, A.P. (2019) Associations between cortical thickness and reasoning vary by socioeconomic status in early childhood and adolescence. *Developmental Cognitive Neuroscience,* 36, 100641.

*Forest, T. A.,℘ Lichtenfeld, A.,℘ Alvarez, B., & **Finn, A.S.** (2019). Superior learning in Synesthetes: Consistent grapheme-color associations facilitate the segmentation of words from continuous speech. *Cognition,* 186, 72-81.

Galla, B.M., Shulman, E.P., Plummer, B.D., D'Mello, S.K., **Finn, A.S.** & Duckworth, A.L. (2019). Cognitive and non-cognitive determinants of high school grades, SAT. *American Educational Research Journal.*

**Finn, A.S.,** Kharitonova, M. Holtby, N.*, & Sheridan, M.A. (2019). Prefrontal and hippocampal structure predict statistical learning ability in early childhood. *Journal of Cognitive Neuroscience,* 31, 126-137.

*Wharton-Shukster, E. & **Finn, A.S.** (2019). A trade-off in learning across levels of abstraction in adults and children. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. (pp.3092—3098). Montreal, QC.

**2018**

*Forest, T.A., & **Finn, A.S**. (2018). Attention Selectively Boosts Learning of Statistical Structure. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. (pp. 1674-1680). Madison, WI: Cognitive Science Society

**2017**

Sheridan, M. A., Peverill, M., **Finn, A. S.,** & McLaughlin, K. A. (2017). Dimensions of childhood adversity have distinct associations with neural systems underlying executive functioning. *Development and Psychopathology,* 29, 1777-1794.

Qi Z., Beach S. D., **Finn A. S.,** Minas J., Goetz C., Chan B., & Gabrieli J. D. E. (2017). Dissociable language learning strengths are predicted by native-language N400 and P600. *Neuropsychologia,* 98, 177-191.

**Finn, A.S.**, Minas, J.E., Leonard, J.A*., Mackey, A.P., Salvatore, J., Goetz, C., West, M.R., Gabrieli, C.F.O. & Gabrieli, J.D.E (2017). Functional brain organization of working memory in adolescents varies in relation to family income and academic achievement. *Developmental Science,* 20, e12450.

**2016**

**Finn, A.S.**, Kalra, P.B., Goetz, C., Leonard, J.A., Sheridan, M.A. & Gabrieli, J.D.E (2016) Developmental Dissociation Between the Maturation of Procedural Memory and Declarative Memory. *Journal of Experimental Child Psychology,* 142, 212-220.

Peverill, M., McLaughlin, K. A., **Finn, A. S.,** & Sheridan, M. A. (2016). Working memory filtering continues to develop into late adolescence. *Developmental Cognitive Neuroscience,* 18, 78-88.

Cain, M.S., Leonard, J.A., Gabrieli, J.D.E., & **Finn, A.S.** (2016) Media Multitasking in Adolescence. *Psychonomic Bulletin & Review*, 23, 1932-1941.

West, M.R., Kraft, M., **Finn, A.S.,** Martin, R.E., Duckworth, A.L., Gabrieli, C.F.O. & Gabrieli, J.D.E (2016) Promise and Paradox: Measuring students' non-cognitive skills and the impact of schooling. *Educational Evaluation and Policy Analysis,* 38, 148-170.

**2015**

*Leonard, J.A., Mackey, A.P., **Finn, A.S.**, & Gabrieli, J.D.E (2015). Differential Effects of Socioeconomic Status on Declarative and Procedural Memory Systems. *Frontiers in Human Neuroscience,* 9, 1-9.

**Finn, A.S.** & Hudson Kam, C.L. (2015). Why segmentation matters: experience-driven segmentation errors impair "morpheme" learning. *Journal of Experimental Psychology: Learning, Memory and Cognition,* 41, 1560-1569.

Saygin, Z.M., Osher D.E., Koldewyn, K., Martin, R.E., **Finn, A.S.**, Saxe, R., Gabrieli, J.D.E. & Sheridan, M.A. (2015). Structural connectivity of the developing human amygdala. *PlosOne,* 10, e0125170.

Mackey, A.P., **Finn, A.S.**, Leonard, J.A., West, M.R., Gabrieli, C.F.O. & Gabrieli, J.D.E (2015). Cortical thickness correlates of the income achievement gap in middle school students. *Psychological Science,* 26, 925-933.

**2014**

**Finn, A.S.,** Kraft, M., West, M.R., Leonard, J.A., Bish, C., Martin, R.E., Sheridan, M.A., Gabrieli, C.F.O. & Gabrieli, J.D.E (2014). Cognitive skills, student achievement tests and schools. *Psychological Science,* 25, 736-744.

**Finn, A.S.,** Lee, T., Kraus, A. & Hudson Kam, C.L. (2014). When it hurts (and helps) to try: the role of effort in statistical learning. *PlosOne.* 9, e101806.

West, M.R., Gabrieli, C.F.O. **Finn, A.S.,** Kraft, M. & Gabrieli, J.D.E (2014). What Effective Schools Do: Stretching the cognitive limits on achievement. *Education Next*.

Plummer, B.D., Galla, B.M., Patrick, S.D., Meketon, D.M., Fernandez-Vina, E., **Finn, A.S.,** Leonard, J., Goetz, C., Bartolino, S. White, R. & Duckworth, A.L (2014). A Behind-the-Scenes Guide to School-Based Research. *Mind, Brain, and Education*, 8, 15-20.

**2013 & before**

**Finn, A.S.,** Hudson Kam, C.L., Ettlinger, M., Vytlacil, J. & D'Esposito, M. (2013). Learning language with the wrong neural scaffolding: The cost of neural commitment to sounds. *Frontiers in Systems Neuroscience,* 7, 1-15.

Ettlinger, M., **Finn, A.S.** & Hudson Kam, C.L. (2012). The Effect of Sonority on Word Segmentation: Evidence for a Phonological Universal. *Cognitive Science*, 36, 655-673

**Finn, A.S.,** Sheridan, M.A., Hudson Kam, C.L., Hinshaw, S. & D'Esposito, M. (2010). Longitudinal evidence for functional specialization of the neural circuit supporting working memory in the human brain. *The Journal of Neuroscience*, 30, 11062-11067

**Finn, A.S.** & Hudson Kam, C.L. (2008). The curse of knowledge: First language knowledge impairs adult learners' use of novel statistics for word segmentation. *Cognition*, 108, 477-499.

Tierney, W. M., Oppenheimer, C.C., Hudson, B.L., Benz, J., **Finn, A.**, Hickner, J.M., Lanier, D., & Gaylin, D.S. (2007). A National Survey of Primary Care Practice-Based Research Networks. *Annals of Family Medicine*, 5, 242-250.

**Finn, A.S.** & Hudson Kam, C.L. (2006). Use of word segmentation cues in adults: L1 phonotactics versus L2 transitional probabilities. In R. Sun (Ed.) *Proceedings of the 28th Annual Meeting of the Cognitive Science Society* (pp. 1229-1304). Mahwah, NJ: Erlbaum.

## In Preparation (manuscripts available upon request)

*Forest, T. A., **Finn, A.S.** & Schlichting, M.L. (under review). *What is represented in memory after statistical learning?*

*Jung, Y., Walther, D.B., & **Finn, A.S.** (under revision). *Automatic categorical abstraction during visual statistical learning in children and adults*.

*Forest, T. A. & **Finn, A.S.** (under revision). *One at a Time: The Capacity of Statistical Learning*

*Himberger, K., **Finn, A.S.** & Honey, C.J. (under revision). *Reconsidering the automaticity of visual statistical learning*, psyarxiv.com/r659w.

*Liu, H., Ducan, K. & **Finn, A.S.** (in prep). *Dissociable dimensions of statistical learning*.

## Invited Talks

**Finn, A.S.** (June, 2019) *Situating statistical learning in memory, a developmental perspective*. Theme Speaker: Conference for Interdisciplinary Advances in Statistical Learning, San Sebastián, Spain

**Finn, A.S.** (November, 2018) *How children learn differently. The role of brain development*. University of Toronto, Alumni Association.

**Finn, A.S.** (October, 2017) *The sensitive period for language learning: knowledge, memory and the developing brain*. Developmental area Colloquium, University of Waterloo.

**Finn, A.S**. (October, 2017) *Learning in the developing mind and brain*. Toronto Western Hospital neuroimaging rounds.

**Finn, A.S.** (April, 2017) *The sensitive period for language learning*. Departmental Colloquium, University of Arizona.

**Finn, A.S.** (March, 2017) *Learning in the developing mind and brain*. Colloquium, Ontario Institute for Studies in Education (OISE), University of Toronto.

**Finn, A.S.** (January, 2017) *Brain development, memory & SES*. Developmental Colloquium, University of Toronto.

**Finn, A.S.** (November, 2016) *How does brain development constrain learning in diverse environments?* Rotman Research Institute, Baycrest Hospital.

**Finn, A.S.** (April, 2016) *The sensitive period for language learning: the role of knowledge and memory*. Human Communication Labs, University of Toronto Mississauga.

**Finn, A.S.** (March, 2016) *The sensitive period for language learning: the role of knowledge and memory*. Ebbinghaus Colloquium, University of Toronto.

**Finn, A.S.** (February, 2016) *Optimal time periods for learning: The role of knowledge, expert neural circuits & effort*. Psycholinguistics group meeting, University of Toronto.

**Finn, A.S.** (September, 2015) *Biological embedding of early experience: the stress response*. Fraser Mustard Institute for Human Development, University of Toronto.

**Finn, A.S.** (April, 2015). *How do cognitive and brain development constrain learning?* Columbia University, Department of Psychology.

**Finn, A.S.** (January, 2015). *Learning in the developing mind and brain.* University of North Carolina, Department of Psychology.

**Finn, A.S.** (December, 2014). *Learning in the developing mind and brain.* University of Toronto, Department of Psychology.

**Finn, A.S.** (December, 2014). *Learning in the developing mind and brain.* Paper presented at the University of Pittsburgh, Department of Psychology & Learning Research and Development Center.

**Finn, A.S.** (November, 2014). *Optimal time periods for learning: The role of knowledge, expert neural circuits & effort.* University of California, Riverside, Department of Psychology.

**Finn, A.S.** (April, 2014). *How do cognitive and brain development constrain learning?* Sackler Institute for Developmental Psychobiology, Weill Medical College of Cornell University.

**Finn, A.S.** (March, 2014) *The impact of educational environment on the development of core cognitive and neural systems.* Columbia University, Teachers College.

**Finn, A.S.** (March, 2014). *How does the maturing brain constrain language learning?* University of California, Irvine.

**Finn, A.S.** (December, 2013). *Achieving more: What cognitive and neural factors underlie improvement on achievement tests?* Cognitive Science Lunch, Massachusetts Institute of Technology.

**Finn, A.S.** (November, 2013). *Predicting language learning: can imaging tell us something more than behavior?* Agency for Intelligence Advanced Research Projects Activity (IARPA). Bethesda, Maryland.

**Finn, A.S.** (November, 2013). *Language learning and brain development, why less is more*. Center for Research in Language talk series, University of California, San Diego.

**Finn, A.S.** (November, 2013). *The sensitive period for language acquisition: Why domain general aspects of cognition matter*. Language and Cognition talk series, Harvard University.

**Finn, A.S.** (September, 2013). *Measuring cognitive ability in schools*. GATES foundation, University of Pennsylvania.

**Finn, A.S.** (May, 2012). *Learning about learning: When adults are worse than kids*. Paper presented at departmental Cognitive Science Lunch, Massachusetts Institute of Technology.

**Finn, A.S.** (October, 2011) *Sensitive periods for language learning: neural commitment and development*. Department of Developmental Medicine, Children's Hospital Boston.

**Finn, A.S.** (May, 2010) *The sensitive period for language acquisition: The role of age related differences in cognitive and neural function.* Colloquium for Cognitive, Behavioral and Brain Sciences at UC Berkeley.

**Conference Talks** * *indicates trainee author,* ℘ *indicates equal contributions*

*Jung, Y., Forest, T.A., Walther, D.B., & **Finn, A.S.** *Top-down modulation of visual cortex in the developing human brain*. Vison Sciences Society Annual Meeting [virtual].

*Forest, T.A., Siegelman, N., & **Finn, A.S.** (July, 2020). *Attention to different statistical structures changes over the course of learning*. Vison Sciences Society Annual Meeting [virtual].

*Forest, T.A., **Finn, A.S.** ℘**,** & Schlichting, M. ℘ (June, 2019). *What is represented in memory after statistical learning: Evidence from adults and children*. Conference for Interdisciplinary Advances in Statistical Learning, San Sebastián, Spain.

*Forest, TA., **Finn, A.S.**, & Schlichting, M. (June 2019). *What is represented in memory after statistical learning: Evidence from adults and children*. Talk presented at the annual conference of the Canadian Society for Brain, Behaviour, and Cognitive Science, Waterloo, ON, Canada

*Himberger, K., **Finn, A.S.,** & Honey, C**.** (June, 2019). *No evidence for visual statistical learning in standard reaction time measures*. Conference for Interdisciplinary Advances in Statistical Learning, San Sebastián, Spain.

*Jung, Y., Walther, D. B., & Finn, A. S. (2019, May). Automatic categorical abstraction during statistical learning in adults and children. Toronto Area Memory Group, ON, Toronto, ON.

*Forest, TA., Sigelman, N., & **Finn, A.S.** (May 2019). *Attention to different statistical structures changes over the course of learning*. Toronto Area Memory Group annual meeting, Toronto, ON.

*Decker, A., Duncan, K. ℘, **Finn, A.S.** ℘**,** & Mabott, D**.** ℘ (March, 2019). *Parental Income Alters Development of Anterior, but not Posterior Hippcampus*. Society for Research in Child Development (SRCD), Baltimore, MD.

Leonard, J.A., Romeo, R.R., Park, A.T., Takada, M.E., Robinson, S.T., Grotzinger, H., Last, B.S., **Finn, A.S.,** Gabrieli, J,D.E., & Mackey, A. (March, 2019). *Associations between cortical thickness and reasoning differ by socioeconomic status in development*. Society for Research in Child Development (SRCD), Baltimore, MD.

*Decker, A., Duncan, K & **Finn, A.S.** (May, 2018). *How do developmental shifts in attentional control influence memory formation?* Presented at Toronto area Memory Group (TaMeG), Toronto, ON.

*Bauer, A., Duncan, K & **Finn, A.S.** (May, 2017). *Children's emerging knowledge of the episode in episodic memory*. Presented at Toronto area Memory Group (TaMeG), Toronto, ON.

**Finn, A.S.** (April, 2017). *The answer is out there: How do children find solutions to difficult problems?* Discussant; Society for Research in Child Development (SRCD), Austin, TX.

**Finn, A.S.** (September, 2016). *Changes in neural systems supporting memory constrain learning.* Paper presented at International Mind, Brain and Education Society (IMBES), Toronto, ON.

**Finn, A.S.**, Leonard J., Mackey, A.P., Goetz, C.A., Salvatore, J., De los Angeles, C., Sheridan, M.A., Gabrieli, C.F.O. & Gabrieli, J.D.E. (November, 2013). *The neural substrates associated with improvement on standardized exams during middle school.* Paper presented at the Society for Neuroscience, San Diego, CA.

Cain, M. S., **Finn, A. S.,** Gabrieli, J. D. E., & Mitroff, S. R. (November, 2013). *Cognitive, Personality, and Neuroimaging Correlates of Media Multitasking.* Paper presented at the Psychonomic Society, Toronto, ON.

**Finn, A.S.**, Hudson Kam, C.L., Ettlinger, M. & D'Esposito, M. (November, 2011). *When it hurts (and helps) to try: What happens when adult learners try to learn novel statistics to segment words and categories.* Paper presented at the Boston University Conference on Language Development, Boston.

**Finn, A.S.,** Hudson Kam, C.L., Sheridan, M.A., Buchsbaum, B.R. & D'Esposito, M. (August, 2009). *The development of neural substrates for verbal working memory & learning*. Paper presented at the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.

**Finn, A.S.** (July, 2009). *Learning a second language with the wrong neural scaffolding: The cost of committing to sounds.* Paper presented at the Conference on Neurocognitive Development, University of California, Berkeley.

**Finn, A.S.**, Hudson Kam, C.L., Ettlinger, M., & D'Esposito, M. (June, 2009). *Neural commitment to the "wrong" sounds: can native language phonological expertise help explain the sensitive period for language acquisition?* Paper presented at the Conference for Multiple Perspectives on the Critical Period for Language, The Ohio State University.

**Finn, A.S.**, Buchsbaum, B.R., Hudson Kam, C.L. & D'Esposito, M. (November, 2008). *Neural mechanisms underlying implicit, auditory-verbal sequence learning in children.* Paper presented at the Society for Neuroscience, Washington DC.

**Finn, A.S.**, Hudson Kam, C.L., Ettlinger, M. & D'Esposito, M. (October, 2008). *The role of phonology in L2 learning difficulties: the cost of committing to sounds.* Paper presented at the Boston University Conference on Language Development, Boston.

**Finn, A.S.**, Sheridan, M.A., Hudson Kam, C.L. & D'Esposito, M. (August, 2008). *Developmental changes in prefrontal and hippocampal connectivity during working memory: a longitudinal fMRI study.* Paper presented at the Training Workshop on the Development of Executive Functions; St. Catherine's College, Oxford UK.

**Finn, A.S.**, Sheridan, M.A., Hinshaw, S., Hudson Kam, C.L. & D'Esposito, M. (August, 2008). *Developmental changes in prefrontal and hippocampal connectivity.* Paper presented at the Bay Area Memory Meeting, University of California, Davis.

**Finn, A.S.**, Sheridan, M.A., Hudson Kam, C.L., Hinshaw, S. & D'Esposito, M. (April, 2008). *Developmental changes in prefrontal and hippocampal connectivity.* Paper presented at the Berkeley-Stanford Talks in Cognition Brain & Behavior, University of California, Berkeley.

Ettlinger, M., **Finn, A. S.,** & Hudson Kam, C.L. (2007, January). *The effects of sonority on word segmentation.* Paper presented at the Annual meeting of the Linguistic Society of America, Anaheim, CA

Buchsbaum, B.R., **Finn, A.S.** & D'Esposito, M. (November, 2007). *Neural Mechanisms underlying auditory-verbal sequence learning.* Presented at the Society for Neuroscience, San Diego.

Buchsbaum, B.R., **Finn, A.S.** & D'Esposito, M. (August, 2007). *Neural Mechanisms underlying auditory-verbal sequence learning.* Presented at the Bay Area Memory Meeting, University of California, Berkeley.

**Finn, A.S.** & Hudson Kam, C.L. (May, 2006). *Use of Word Segmentation Cues in Adults: L1 Phonotactics versus L2 Transitional Probabilities.* Presented at the Berkeley-Stanford-Santa Cruz Talks in Developmental Psychology, University of California, Santa Cruz.

**Conference Posters** * *indicates trainee author,* ℘ *indicates equal contributions*

*Decker, A., **Finn, A.S.** ℘, Duncan, K. ℘ (June, 2020) *Errors lead to transient impairments in memory formation*. Vision Sciences Society Meeting [virtual].

*Cho, H., Decker, A., Tandoc, M., Duncan, K.℘ & **Finn, A.S.** ℘ (June, 2020) *Attending less, but learning more: Do children's reduced selective attention boost memory for irrelevant information?* Vision Sciences Society Meeting [virtual, withdrawn due to COVID-19 data collection interruptions].

*Wharton-Shukster, E., Buchsbaum, B., Onyshko, E., & **Finn, A.S.** (May, 2020). *Concept organization in adults and young children*. Cognitive Neuroscience Society 2020 Annual Meeting, Boston, MA [virtual].

*Ren, J.,* Wharton-Shukster, E., Bauer, A., Duncan, K., & **Finn, A. S.** (May, 2020). *Event Models Structure Information Accessibility Less in Children than in Adults*. Cognitive Neuroscience Society 2020 Annual Meeting, Boston, MA [virtual].

*Dubois, M., Decker, A., Duncan, K., **Finn, A.S.** (May, 2020). *Learning more when attending less: Poor attentional states enhance peripheral learning*. Cognitive Neuroscience Society 2020 Annual Meeting, Boston, MA [virtual]

*Himberger, K. D., **Finn, A.S.,** & Honey, C. J. (October, 2019). *Reconsidering the Automaticity of Visual Statistical Learning*. Society for Neuroscience, Chicago, IL.

*Cheng, H., Sahar, A., Lim, D., Dubois, M., Fukuda, K. & **Finn, A.S.** (October, 2019). *Developmental Differences in Attention Filtering and Visual Working Memory Capacity*. Cognitive Developmental Society (CDS), Louisville, KY.

*Tandoc, M., Nadendla, B., Shen, C., Otsubo, K., Pham, T., & **Finn, A.S**. (October, 2019). *Kids learn what they can't ignore: Developmental differences in the processing of distractors*. Cognitive Development Society (CDS), Louisville, KY.

*Abolghasem, Z., **Finn, A.S**., Schlichting, M.L. (October, 2019). *A child's view is unique: Developmental differences in what is important in naturalistic scene images*. Cognitive Development Society (CDS), Louisville, KY.

*Ren, J., Duncan, K. & **Finn, A.S.** (October, 2019). *Events structure memory less in children than adults.* Cognitive Development Society (CDS), Louisville, KY.

Jung, Y., Walther, D. B., & Finn, A. S. (2019, August). *Top-down modulation of sensory cortex in adults and children*. Flux Congress. New York, NY

*Wharton-Shukster, E., **Finn, A. S.** (July, 2019). *A trade-off in learning across levels of abstraction in adults and children*. 41st Annual Meeting of the Cognitive Science Society. Montreal, QC.

*Forst, T.A., Siegelman, N., & **Finn, A.S.** (June, 2019). *Attention to different statistical structures changes over the course of learning*. Conference for Interdisciplinary Advances in Statistical Learning, San Sebastián, Spain.

*Himberger, K. D., **Finn, A.S.,** & Honey, C.J. (May 2019). *No evidence for visual statistical learning in standard reaction time measures*. Poster presented at the 31st Association for Psychological Science Annual Convention, Washington, D.C.

*Decker, A., Duncan, K. [℗] & **Finn, A.S.** [℗] (May, 2019) *Attention Matters More: In Kids, Attentional State Predicts Memory Better Than in Adults*. Context and Episodic Memory Symposium, Philadelphia, PA.

*Decker, A., Duncan, K.* & **Finn, A.S.** (March, 2019). *Children's Attentional State Shape Their Memory More than Adults'*. Society for Research in Child Development (SRCD), Baltimore, MD.

*Dubois, M., **Finn, A. S.**, (March, 2019). *Younger isn't better: Broader attention does not facilitate learning peripheral information*. Society for Research in Child Development (SRCD), Baltimore, MD., **nominated for best student poster**

*Wharton-Shukster, E. & **Finn, A.S.** (March, 2019). *Young Children Don't Notice the Odd One Out: the Development of Gist Representation*. Society for Research in Child Development (SRCD), Baltimore, MD.

*Dubois, M., **Finn, A.S.**, & Mack, M.L. (November, 2018). *Using Hidden Markov Modelling to Assess the Cognitive States of Procedural Memory*. Presented at OPAM (Object Perception, visual Attention, and visual Memory), New Orleans, LA

*Forest, T.A. & **Finn, A.S.** (July, 2018). *Children cannot benefit from instruction: how attention impacts statistical learning differently across ages*. Presented at Cognitive Science Society, Madison, WI.

*Himberger, K., Finn, A., Honey, C. J. (2018, June). *Perceptual properties of stimuli modulate visual statistical learning*. Presented at the 1st International Workshop on Predictive Processing, San Sebastian, Spain.

*Himberger, K., Finn, A., Honey, C. J. (2018, May). *Perceptual properties of stimuli robustly modulate visual statistical learning*. Presented at the 2018 Context and Episodic Memory Symposium, Philadelphia, PA.

*Forest, T.A. & **Finn, A.S.** (March, 2018). *Synesthesia and Statistical Learning- Redundant Cues Improve Segmentation*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Wharton-Shukster, E. & **Finn, A.S.** (March, 2018). *A trade-off in category- and item-level learning: implications for development*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Liu, H., Ducan, K. & **Finn, A.S.** (March, 2018). *The durability of statistical learning*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Otsubo, K., & **Finn, A.S.** (March, 2018). *Kids don't see what we see: Young children are less likely to experience an illusion that requires hippocampally mediated perceptual integration*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Jung, Y., Bernhardt-Walther, D. & **Finn, A.S.** (March, 2018). *Statistical learning of categorical regularities in adults and children*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Decker, L., **Finn, A.S.*** & Duncan, K*. (March, 2018). *Natural and reactive shifts in attention influence memory formation in children*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

Perrachione, T., Babcock, S., Han, M., Salvatore, J., Minas, J., **Finn, A.S.,** Gabrieli, J.D.E., & Qi, Z. (March, 2018). *Neural responses during procedural memory tasks are related to foreign language learning outcomes*. Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Dubois, M., & **Finn, A.S**. (Feb, 2018). *The impact of a search for structure in artificial grammar learning*. Presented at LOVE conference, Niagra Falls, ON.

*Himberger, K., **Finn, A.S.,** Honey, C.J. (November, 2017). *Implicit and explicit knowledge in visual statistical learning*. Presented at Society for Neuroscience, Washington DC.

*Forest, T.A. & **Finn, A.S.** (March, 2017). *The effect of instructions on people's ability to learn two statistical streams simultaneously.* Presented at Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

*Himberger, K., **Finn, A.S.,** Honey, C.J. ( November, 2016). *Lengthening of circuit memory via mechanisms of synaptic plasticity*. Presented at Society for Neuroscience, San Diego, CA.

Beach, S.D., Qi, Z., **Finn, A.S.,** Minas, J., Goetz, C., Chan, B., Gabrieli, J. D. E. (October, 2015). *Language learning efficacy in adults is predicted by the electrophysiological markers of native language processing*. Annual Meeting of the Society for the Neurobiology of Language, Chicago, IL.

Choi, J.Y., Minas, J.E., **Finn, A.S**., Gabrieli, J.D.E., & Perrachione, T.K. (June, 2015) *Functional brain changes associated with learning a novel phonological contrast.* Annual Meeting of the Organization for Human Brain Mapping, Honolulu, HI.

Qi, Z., **Finn, A.S.,** Ghosh, S., Minas, J., Chan, B. & Gabrieli, J.D.E. (August, 2014). *Temporal Dynamics of EEG Topographic Similarity during Successful Language.* Presented at Neurobiology of Language, Amsterdam, Netherlands.

Mackey, A.P., **Finn, A.S.,** Leonard, J., Salvatore, J., Goetz, C., Gabrieli, J.D.E. (June, 2014). *Cortical thickness differences associated with family income in adolescents.* Annual Meeting of the Organization for Human Brain Mapping, Hamburg, Germany.

*Minas, J., **Finn, A.S.**, Goetz, C., Gabrieli, J.D.E. (June, 2014). *Relationships between neural recruitment and language learning outcomes.* Annual Meeting of the Organization for Human Brain Mapping, Hamburg, Germany.

Perrachione, T., Finn, A.S., Minas, J., Tan, C., Chan, B. & Gabrieli. J.D.E (May, 2014). *Individual differences in implicit learning.* Presented at Acoustical Society of America, Providence, RI.

*Kalra, P., **Finn, A.S.** & Gabrieli, J.D.E. (May, 2014). *Construct validity of implicit learning: Agreement across tasks.* Presented at Association for Psychological Science, San Francisco, CA.

*Goetz, C., **Finn, A.S.**, Minas, J., Qi, Z. & Gabrieli, J.D.E. (April, 2014). *Evidence for dissociable neural substrates underlying open and closed loop forms of skill learning.* Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Minas, J., **Finn, A.S.**, Goetz, C., Perrachionae, T. & Gabrieli, J.D.E. (April, 2014). *Neural markers of grammar learning.* Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Leonard, J.A., **Finn, A.S.**, Mackey, A.P., Salvatore, J., De los Angeles, C., Goetz, C.A., Gabrieli, J.D.E. & Whitfield-Gabrieli, S. (April, 2014). *Relation of functional connectivity to cognitive abilities in adolescents from socioeconomically diverse backgrounds*. Presented at The Cognitive Neuroscience Society Annual Meeting, Boston, MA.

Peverill, M., **Finn, A.S.**, McLaughlin, K. & Sheridan. M.A. (BCH/HMS) (April, 2014). *Prefrontal Cortex Recruitment During Working Memory Filtering in Adolescents and Adults.* Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

Qi, Z., Perrachionae, T., Han, M., Garel, K., Chen, E., **Finn, A.S.** & Gabrieli, J.D.E. (April, 2014). *Functional brain imaging predicts foreign language learning success in the classroom.* Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

*Kalra, P., **Finn, A.S.** & Gabrieli, J.D.E. (April, 2014). *Individual differences in implicit learning.* Presented at Cognitive Neuroscience Society Annual Meeting, Boston, MA.

Mackey, A.P., **Finn, A.S.,** Leonard, J., Salvatore, J., Goetz, C., Gabrieli, J.D.E. (November, 2013). *Hippocampal white matter structure is linked to cognitive and academic skills in adolescents from low-income backgrounds.* Presented at Society for Neuroscience, San Diego, CA.

*Leonard, J., **Finn, A.S.,** Mackey, A.P., Salvatore, J., Goetz, C., Gabrieli, J.D.E., & Whitfield-Gabrieli, S. (November, 2013). *Resting-state MRI in adolescents: Relation of functional connectivity to cognitive abilities and educational outcomes.* Presented at Society for Neuroscience, San Diego, CA.

**Finn, A.S.,** Albert, N., Leonard, J., & Hudson Kam, C.L. (April, 2013). *Effort in skill learning: more persistent benefits for children.* Presented at Cognitive Neuroscience Society Annual Meeting. San Fransisco, CA.

**Finn, A.S.,** Sheridan, M.A., Leonard, J.A., Salvatore, J. & Gabrieli, J.D.E (October, 2012). *Individual differences in adolescents' ability to filter items for working memory predict neural structure and function.* Presented at Society for Neuroscience, New Orleans, LA.

**Finn, A.S.**, Sheridan, M.A., Hinshaw, S. & D'Esposito, M. (April, 2008). *Developmental changes in prefrontal and hippocampal connectivity during working memory: A longitudinal fMRI study* . Presented at Cognitive Neurosciences Society, San Francisco, CA.

**Finn, A.S.**, Sheridan, M.A., Hinshaw, S. & D'Esposito, M. (October, 2006). *A longitudinal fMRI study: developmental changes in the neural representation of working memory.* Presented at the Society for Neuroscience, Atlanta, CA.

**Finn, A.S.** & Hudson Kam, C.L. (July, 2006). *Use of Word Segmentation Cues in Adults: L1 Phonotactics versus L2 Transitional Probabilities.* Presented at the Cognitive Science Society, Vancouver, BC.

## Teaching

Developmental psychology, cognitive psychology, cognitive neuroscience, developmental cognitive neuroscience, language acquisition, biological psychology, cognitive development, language and the brain, psychology of learning, learning and memory, sensitive periods for learning, research methods, methods in fMRI and MRI

## Experience (courses & lectures)

| | |
|---|---|
| 2019 | **Instructor, Developmental Psychology**, undergraduate course; 180 students University of Toronto. |
| 2018 | **Instructor, Critical Periods, Brain Plasticity, and Development**, undergraduate seminar University of Toronto. |
| 2018 | **Instructor, Developmental Cognitive Neuroscience**, undergraduate seminar University of Toronto. |
| 2018 | **Instructor, Developmental Psychology**, undergraduate course; 180 students University of Toronto. |
| 2017 | **Instructor, Critical Periods, Brain Plasticity, and Development**, undergraduate seminar University of Toronto. |
| 2017 | **Instructor, Developmental Cognitive Neuroscience**, undergraduate seminar University of Toronto. |
| 2017 | **Instructor, Developmental Psychology**, undergraduate course; 180 students University of Toronto. |

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|---|---|
| 2016 | **Instructor, Developmental Cognitive Neuroscience**, undergraduate seminar<br>University of Toronto. |
| 2016 | **Instructor, Developmental Cognitive Neuroscience**, graduate seminar<br>University of Toronto. |
| 2015 | **Guest lecturer – "Biological embedding of early experience, stress response" Pluralistic human development**<br>University of Toronto. |
| 2011 | **Guest lecturer – "*Language Acquisition*" Cognitive Psychology**<br>Harvard University |
| 2009 | **Guest lecturer – "*Language and the Brain*" Psycholinguistics**<br>University of California, Berkeley |
| 2008 | **Graduate Student Reader – The Developing Brain**<br>University of California, Berkeley |
| 2008 | **Guest lecturer – "*Language and the Brain*" Psycholinguistics**<br>University of California, Berkeley |
| 2007 | **Guest lecturer – "*Language and the Brain*" Language Development**<br>University of California, Berkeley |
| 2006 | **Graduate Student Instructor – Introduction to Psychology**<br>University of California, Berkeley |
| 2006 | **Graduate Student Instructor – Language Development**<br>University of California, Berkeley |
| 2005 | **Graduate Student Instructor – Cognitive Science**<br>University of California, Berkeley |
| 2000-2001 | **Writing Fellow, Teaching Assistant & Writing instructor**<br>University of Wisconsin-Madison |

## Graduate Students

| | |
|---|---|
| 2017-present | **Alexandra Decker** (Brain Canada fellowship; Ontario Graduate studies fellowship) |
| 2017-present | **Erika Wharton-Shukster** (SSHRC fellowship; NSERC doctoral fellowship) |
| 2016-present | **Tess Forest** |
| 2016-present | **Michael Dubois** (Ontario Graduate studies fellowship; NSERC doctoral fellowship) |
| 2015-present | **Yaelan Jung** (Ontario Graduate studies fellowship) |
| 2015-2016 | **Kevin Himberger** (outside project) |

## Undergraduate Students & thesis supervision

*Current Undergraduate Advisees = 12 (thesis students listed)*

| | |
|---|---|
| 2019-present | **Bharat Nadendla,** honors mini thesis |
| 2017-present | **Zahra Abolghasem,** honors thesis (NSERC USRA awardee) |
| 2018-2019 | **Nika Zahedi Neysiani,** honors mini thesis |
| 2017-present | **Danielle Lim,** honors thesis (NSERC USRA awardee) |
| 2017-2019 | **Chuyun Shen,** honors thesis |
| 2016-2017 | **Helen Liu,** honors thesis |
| 2016 | **Victoria Antinucci,** honors mini thesis |
| 2015-2016 | **Natalie Holtby,** honors thesis (graduate student, clinical area U Toronto) |
| 2011-2012 | **Juan Munoz,** honors thesis, Harvard University (medical student, Johns Hopkins) |
| 2009-2010 | **Joscelyn Daguna** honors thesis, UC Berkeley (graduate student, Columbia) |

## Professional Service: Ad hoc Manuscript Reviewer

*Nature: Human Behavior* *PNAS*

*Developmental Science*
*Trends in Cognitive Neuroscience*
*Experimental Psychology*
*Journal of Memory and Language*
*Journal of Cognitive Neuroscience*
*NeuroImage*
*Human Brain Mapping*
*Developmental Cognitive Neuroscience*
*Language Learning and Development*
*Journal of Neuroscience*
*Cognitive Development*
*AREA Open*
*Cognition*
*Psychometric Medicine*
*PlosOne*

**University and Department Service**

| | |
|---|---|
| 2018-present | Coordinator, Child Study Centre, University of Toronto, St. George Campus |
| 2017-present | Organizer Departmental Colloquium |
| 2017-present | Executive board, University of Toronto Neuroimaging faculty |
| 2016-present | Organizer, Cognitive area weekly talk series: "Ebbinghaus Empire Colloquium" |
| 2016-2017 | Faculty Search Committee, U of Toronto, Department of Psychology |
| Fall 2016 | Reviewer, Graduate research fellowships |
| Fall 2015 | Reviewer, UG research fellowships |

**Select Media Coverage**

| | |
|---|---|
| July 2019 | U of T psychologist Amy Finn reveals insights into the implicit learning that helps make us human. ***University of Toronto News***, Chris Sasaki |
| March 2019 | Colourful language: U of T psychologists discover enhanced language learning in synesthetes. ***University of Toronto News***, Chris Sasaki |
| July 2016 | Higher-income students have an edge when it comes to working memory, experts say. ***University of Toronto News***, Peter Boisseau |
| Oct 2015 | Knowledge of and Exposure to one's native langue interferes with acquisition of a new Language. ***American Psychological Association***: Peeps, Jenn Richler |
| July 2014 | Try, try again? Study says no<br>***MIT news***, Anne Trafton |
| July 2014 | Want to Learn a Language? Don't Try So Hard<br>***Time***, Abby Abrams |
| July 2014 | Trying too Hard Can Slow New Language Development<br>***Psych Central***, Rick Nauert |
| Dec 2013 | Even when test scores go up, some cognitive abilities don't<br>***MIT news***, Anne Trafton |
| Dec 2013 | Standardized Achievement Tests: What Are They Good For? Hint: Not Cognitive Ability.<br>***Scientific American***, Scott Barry Kaufman |
| Dec 2013 | Research: Improving Test Scores Doesn't Equate to Improving Abstract Reasoning<br>***Transforming Education***, Diane Schaffhauser |