

Natasha Zoe Kirkham

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Nationality: Canadian

Education

Ph.D. (2003), Department of Psychology, Cornell University

B.Sc. (with high distinction), Psychology, University of Toronto, 1997

B.A. English Major, French Minor, University of Toronto, 1993

Professional Experience

Assistant Professor, Psychology Department, Stanford University, Stanford, CA 2003 to present.

Honours and Fellowships

2001, SRCD Student Travel Award

2000, Summer Institute in Cognitive Neuroscience Fellowship, Dartmouth College

2000, Cognitive Studies Summer Fellowship, Cornell University

1995-1997, Regents In-Course Scholarships, University of Toronto

1995-1997, Dean's Honour List, University of Toronto

Research Interests

Development of visuo-spatial learning: statistical learning (pattern detection) in infants, spatial indexing (tracking locations, visuospatial memory) in infants.

Developmental trajectory of cognitive flexibility: task-switching in preschoolers (and adults), the role of memory and inhibitory control in task-switching

Publications

Richardson, D.C., & Kirkham, N.Z. (in press). Spatial indexing in adults and six month olds: evidence from eye tracking. *Journal of Experimental Psychology: General*

Kirkham, N.Z., Cruess, L.M., & Diamond, A. (2003). Helping Children Apply their Knowledge to their Behavior on a Dimension-Switching Task. *Developmental Science*, 6, 449-467.

Kirkham, N.Z., & Diamond, A. (2003). Sorting between theories of perseveration: Performance in conflict tasks requires, attention, and inhibition. *Developmental Science*, 6, 474-476.

Diamond, A., Kirkham, N.Z., & Amso, D. (2002). Conditions under which Young Children CAN Hold Two Rules in Mind and Inhibit a Prepotent Response. *Developmental Psychology*, 38, 352-362.

Kirkham, N.Z., Slemmer, J.A., & Johnson, S. P. (2002). Visual statistical learning in infancy: evidence of a domain general learning mechanism. *Cognition*, 83, B35-B42.

Kirkham, N.Z., Slemmer, J.A., & Johnson, S. P. (2001). Visual statistical learning in infants. *Proceedings of the Twenty-third Annual Meeting of the Cognitive Science Society*, Erlbaum: Mahwah, NJ

Canfield, R. L., & Kirkham, N. Z. (2001). Infant cortical development and the prospective control of saccadic eye movements. *Infancy*, 2, 197-211.

Diamond, A., Churchland, A., Cruess, L.M., & Kirkham, N.Z. (1999). Early developments in the ability to understand the relation between stimulus and reward. *Developmental Psychology*, 35(6), 1507-1517.

Jacques, S., Zelazo, P.D., Kirkham, N.Z., & Sencese, T.K. (1999). Rule selection and rule execution in preschoolers: An error-detection approach. *Developmental Psychology*, 35(3), 770-780.

Manuscripts Submitted or in Preparation

Kirkham, N. Z., Slemmer, J. A., & Johnson, S. P. (manuscript in preparation). *Location, location, location: Development of spatiotemporal sequence learning in infancy.*

Richardson, D. C., Kirkham, N. Z., & Johnson, S. P. (manuscript in preparation). *The importance of 'what': Spatial indexing in 6-month-olds is disrupted by inconstant visual features.*

Conference Presentations

Kirkham, N.Z., Richardson, D.C., & Rosekrans, J. (2002, May). Object coding: Multiple cues, multiple ways. Poster presented at the annual Vision Sciences Conference, Sarasota, FL.

Kirkham, N.Z., Richardson, D.C., Spivey, M.J., & Johnson, S.P. (2002, April). Six-month-olds can rotate attentional markers: Eye tracking evidence of dynamic spatial indexing. Poster presented at the biennial International Conference on Infant Studies, Toronto, CA.

Slemmer, J.A., Kirkham, N.Z., & Johnson, S.P. (2002, April). Statistical learning and rule abstraction in infancy. In N.Z. Kirkham & J.A. Slemmer (Chairs), *New directions in statistical learning*. Paper presented at the biennial International Conference on Infant Studies, Toronto, CA.

Kirkham, N.Z., & Richardson, D.C. (2001, October). Eye tracking evidence of spatial indexing in infants: Binding multimodal properties by location. Poster presented at the annual Cognitive Development Society Conference, Virginia Beach, VA.

Diamond, A., & Kirkham, N.Z. (2001, October). Card sorting by children of 3 & 4 years and task switching by older children: Inhibition needed to overcome "Attentional Inertia" In U. Mueller (Chair), *Rule use through the lens of the DCCS What develops?* Paper presented at the annual Cognitive Development Society Conference, Virginia Beach, VA.

Kirkham, N.Z., Slemmer, J.A., & Johnson, S.P. (2001, August). Visual statistical learning in infants. Paper presented at the annual Cognitive Sciences Society Conference, Edingburgh, Scotland.

Kirkham, N.Z., & Richardson, D.C. (2001, June). Eye tracking evidence of spatial indexing in infants: Binding multimodal properties by location. Poster presented at the annual Levels of Perception Conference, Toronto, Canada.

Slemmer, J.A., Kirkham, N.Z., & Johnson, S.P. (2001, May). *Visual statistical learning in infancy*. Poster presented at the annual Vision Sciences Conference, Sarasota, FL.

Kirkham, N.Z., & Slemmer, J.A. (2001, April). *Visual statistical learning in infancy: Discriminating between chaos and entropy*. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Minneapolis, MN

Kirkham, N.Z. (2000, September). *Visual field processing: A developmental review*. Paper presented at RepMo 2000, Tuebingen, Germany.

Kirkham, N.Z. & Diamond, A. (1999, April). Integrating competing ideas in word and action. In G. Deak (Chair), *Flexibility and perseveration in early problem solving*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Albuquerque, N.M.

Jacques, S., Zelazo, P.D., Kirkham, N.Z., & Pahuta, T.K. (1997). *The development of error detection in preschoolers on the Dimensional Change Card Sort*. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Washington, D.C., April, 1997.

Invited Lectures:

Spring 2002; Summer, 2002: **Disorders of Personality**, Introduction to Personality; Introduction to Social and Personality Psychology

Spring 2002: **The A-not-B error and Issues of Object Permanence**, Cognitive Development

Fall 2001: **Introduction to Cognitive Development**, Introduction to Human Development

Spring 2000: **Introduction to Cognitive Development**, Developmental Psychology
Spring 2000: **Theory of Mind**, Cognitive Development