

John M. Franchak

Curriculum Vitae
(February 11, 2014)

CONTACT INFORMATION

Dept. of Psychological & Brain Sciences
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EDUCATION AND TRAINING

2013-current Post-Doctoral Fellow
Department of Psychological and Brain Sciences, **Indiana University**
Sponsors: Chen Yu & Linda Smith
2011-2013 Post-Doctoral Researcher
Department of Psychology and Center for Neural Science, **New York University**
Sponsors: Karen Adolph & David Heeger
2009-2011 Ph.D., Experimental Psychology, **New York University**
Advisor: Karen Adolph
2006-2009 M.A., Experimental Psychology, **New York University**
2005-2006 Research Scientist, Department of Psychology, **Rutgers University**
Sponsor: Margaret Shiffrar
2001-2005 B.A., Cognitive Science, **University of Virginia**
Advisor: Dennis Proffitt

RESEARCH INTERESTS

Natural Vision (head-mounted eye-tracking in infants, children, and adults during natural activities, eye gaze during social interactions, remote eye-tracking of dynamic scenes)
Perceptual-Motor Development (learning, locomotion, manual skills)
Perception and Action (visual guidance of walking and reaching, perceiving affordances)
Development of Decision-Making, Developmental Systems, Lifespan Development

PUBLICATIONS

* *undergraduate advisees*

Franchak, J. M., & Adolph, K. E. (in press). Gut estimates: Pregnant women adapt to possibilities for squeezing through doorways. *Attention, Perception, & Psychophysics*.

Franchak, J. M., & Adolph, K. E. (in press). Affordances for action as probabilistic functions: Implications for development, perception, and decision-making. *Ecological Psychology*. [Special issue honoring Herb Pick].

Kretch, K. S., **Franchak, J. M.**, & Adolph, K. E. (in press). Crawling and walking infants see the world differently. *Child Development*.

Ishak, S., **Franchak, J. M.**, & Adolph, K. E. (2014). Perception-action development from infants to adults: Perceiving affordances for reaching through openings. *Journal of Experimental Child Psychology*, 117, 92-105.

Comalli, D. M., **Franchak, J. M.**, Char, A. *, & Adolph, K. E. (2013). Ledge and wedge: Older and younger adults' perception of possibilities for action. *Experimental Brain Research*, 228, 183-192.

Franchak, J. M., Celano, E. C. *, & Adolph, K. E. (2012). Perception of passage through openings depends on the size of the body in motion. *Experimental Brain Research*, 223, 301-310.

Franchak, J. M., & Adolph, K. E. (2012). What infants know and what they do: Perceiving possibilities for walking through openings. *Developmental Psychology*, 48, 1254-1261.

Raudies, F., Gilmore, R. O., Kretch, K. S., **Franchak, J. M.**, & Adolph, K. E. (2012). Understanding the development of motion processing by characterizing optic flow experienced by infants and their mothers. *Proceedings of the IEEE International Conference on Development and Learning*. [Best Methodological Paper, ICDL].

Franchak, J. M., Kretch, K. S., Soska, K. C., & Adolph, K. E. (2011) Head-mounted eye-tracking: A new method to describe infant looking. *Child Development*, 82, 1738-1750.

Franchak, J. M., & Adolph, K. E. (2010). Visually guided locomotion: Head-mounted eye-tracking of natural locomotion in children and adults. *Vision Research*, 50, 2766-2774.

Franchak, J. M., van der Zalm, D. J. *, & Adolph, K. E. (2010). Learning by doing: Action performance facilitates affordance perception. *Vision Research*, 50, 2758-2765.

Franchak, J. M., Kretch, K. S., Soska, K. C., Babcock, J. S., & Adolph, K. E. (2010). Head-mounted eye-tracking of infants' natural interactions: A new method. *Proceedings of the 2010 Symposium on Eye Tracking Research & Applications*. [Best Paper Award, ETRA].

Adolph, K. E., Joh, A. S., **Franchak, J. M.**, Ishak, S., & Gill, S. V. (2008). Flexibility in the development of action. In J. Bargh, P. Gollwitzer, & E. Morsella (Eds.), *Oxford Handbook of Human Action*, New York: Oxford University Press.

MANUSCRIPTS SUBMITTED AND IN PROGRESS

* undergraduate advisees

Raudies, F., Gilmore, R. O., Kretch, K. S., **Franchak, J. M.**, & Adolph, K. E. (in revision). Characterizing optic flow experienced by infants and their mothers.

Amso, D., **Franchak, J. M.**, Tenenbaum, E., Adolph, K. E., & Sere, T. (in preparation). Head-mounted eye tracking of young children with autism during natural interactions.

Franchak, J. M., Heeger, D. H., Hasson, U., & Adolph, K. E. (in preparation). Free-viewing gaze behavior in infants and adults.

HONORS AND AWARDS

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| 2013 | Postdoctoral Trainee, NICHD Training Grant, 5T32HD7475-17, "Training Program in Integrative Developmental Process", Indiana University |
| 2012 | Best Methodological Paper "Understanding the development of motion processing by characterizing optic flow experienced by infants and their mothers", International Conference on Learning and Development |

- 2011 Martin Braine Dissertation Award, **New York University**
 2010 Best Paper Award "Head-mounted eye-tracking of infants' natural interactions: A new method", **Eye Tracking Research & Applications**
 2010 NIH Travel Award, **International Society for Developmental Psychobiology**
 2009 Sandra G. Wiener Student Investigator Award, **International Society for Developmental Psychobiology**
 2008 NIH Travel Award, **International Society for Developmental Psychobiology**
 2007 Graduate Student Travel Fellowship, **New York University**
 2007 NIH Travel Award, **International Society for Developmental Psychobiology**
 2006-2011 MacCracken Graduate Student Fellowship, **New York University**

CONFERENCE PAPERS

* *undergraduate advisees*

Adolph, K. E., Kretch, K. S., Cole, W. G., Karasik, L., **Franchak, J. M.**, Chan, G., Tamis-LeMonda, C. (2013, April). Effects of crawling and walking on infants' experiences. Paper presented at the meeting of the Society for Research in Child Development, Seattle, WA.

Adolph, K. E., & **Franchak, J. M.** (2012, June). Navigating through tight spots: Learning and recalibration. Symposium to honor Herb Pick, International Conference on Infant Studies, Minneapolis, MN.

Adolph, K. E., **Franchak, J. M.**, Kretch, K. S., & Soska, K. C. (2011, April). *Head-mounted eye-tracking: A novel method to describe active vision in natural environments*. Paper presented at the meeting of the Society for Research in Child Development, Montreal, Canada.

Franchak, J. M., Kretch, K. S., Soska, K. C., & Adolph, K. E. (2010, March). *Visual exploration during natural interactions: Head-mounted eye-tracking with mobile infants*. Paper presented at the International Conference on Infant Studies, Baltimore, MD.

Franchak, J. M., Kretch, K. S., Soska, K. C., & Adolph, K. E. (2009, October). *Head-mounted eye-tracking of infants during natural interactions*. Paper presented at the meeting of the International Society for Developmental Psychobiology, Sandra G. Wiener Awards Symposium, Chicago, IL.

Franchak, J. M., van der Zalm, D. J.*, Hartzler, B. M.*, Adolph, K. E. (2009, June). *Perceiving affordances for navigating through openings*. Paper presented at the 15th International Conference on Perception and Action, Minneapolis, MN.

Franchak, J. M., Adolph, K. E., Gabelman, L.*, & Babcock, J. S. (2009, April). *Visual guidance of locomotion in children: Navigation from the periphery*. Paper presented at the meeting of the Society for Research in Child Development, Denver, CO.

Franchak, J. M., Adolph, K. E., Badaly, D., & Babcock, J. S. (2008, November). *Navigation from the corner of the eye: Visual guidance of locomotion in children*. Paper presented at the meeting of the International Society for Developmental Psychobiology, Washington, DC.

Franchak, J. M., Smith, M. T.*, & Adolph, K. E. (2007, November). *Pregnant women walking through doorways*. Paper presented at the meeting of the International Society for Developmental Psychobiology, San Diego, CA.

Franchak, J. M., & Adolph, K. E. (2007, May) *Perceiving changing affordances for action: Pregnant women walking through doorways*. Paper presented at the meeting of the Vision Sciences Society, Sarasota, FL.

CONFERENCE PRESENTATIONS

* undergraduate advisees

Franchak, J. M., Heeger, D. H., Hasson, U., & Adolph, K. E. (2013, April). *Free-viewing gaze behavior in infants and adults*. Poster presented at the meeting of the Society for Research in Child Development, Seattle, WA.

Kretch, K. S., **Franchak, J. M.**, Brothers, J. L.*, & Adolph, K. E. (2012, June). *Effects of locomotor posture on infants' visual experiences*. Poster presented at the International Conference on Infant Studies, Minneapolis MN.

Gilmore, R. O., Raudies, F., Kretch, K. S., **Franchak, J. M.** & Adolph, K. E. (2012, June). *Do you see what I see? Comparing optic flow experienced by infants and their mothers*. Poster presented at the International Conference on Infant Studies, Minneapolis MN.

Franchak, J. M., Hasson, U., Heeger, D. J., & Adolph, K. E. (2012, May). *Reliability of actors' and observers' gaze during natural tasks*. Poster presented at the meeting of the Vision Sciences Society, Naples FL.

Kretch, K. S., **Franchak, J. M.**, Brothers, J. L.*, & Adolph, K. E. (2012, May). *What infants see depends on locomotor posture*. Poster presented at the meeting of the Vision Sciences Society, Naples FL.

Raudies, F., Kretch, K. S., **Franchak, J. M.**, Mingolla, E., Gilmore, R. O., & Adolph, K. E. (2012, May). *Where do mothers point their head when they walk and where do babies point their head when they are carried?* Poster presented at the meeting of the Vision Sciences Society, Naples FL.

Gilmore, R. O., Raudies, F., Kretch, K. S., **Franchak, J. M.**, & Adolph, K. E. (2012, May). *Patterns of optic flow experienced by infants and their mothers during locomotion*. Poster presented at the meeting of the Vision Sciences Society, Naples FL.

Franchak, J. M., Sadanand, A.*, & Adolph, K. E. (2011, October). *Entrapment or falling: Infants' exploration of action possibilities*. Poster presented at the meeting of the Cognitive Development Society, Philadelphia, PA.

Franchak, J. M., Sadanand, A.*, & Adolph, K. E. (2011, April). *Walls and falls: Infants' motor decisions reflect consequences for errors*. Poster presented at the meeting of the Society for Research in Child Development, Montreal, Canada.

Franchak, J. M., & Adolph, K. E. (2010, November). *Tight squeeze: Infants' motor decisions reflect consequences for errors*. Poster presented at the meeting of the International Society for Developmental Psychobiology, San Diego, CA.

Gabelman, L. *, **Franchak, J. M.**, & Adolph, K. E. (2010, March). *Fovea to periphery: The developmental progression of visual guidance during obstacle navigation*. Poster presented at the International Conference on Infant Studies, Baltimore, MD.

Franchak, J. M., Adolph, K. E., Badaly, D., Smith, M. T. *, & Babcock, J. S. (2008, May) *Head-mounted eye-tracking with children: Visual guidance of motor action*. Poster presented at the meeting of the Vision Sciences Society, Naples, FL.

Franchak, J. M., Smith, M. T. *, & Adolph, K. E. (2008, May) *Visual guidance of locomotion in infants, young adults, and the elderly*. Poster presented at the meeting of the Vision Sciences Society, Naples, FL.

Franchak, J. M., Stefanucci, J. K., & Proffitt, D. R. (2006, May). *Within striking distance: Task efficacy influences perceived size and distance*. Poster presented at the meeting of the Vision Sciences Society, Sarasota, FL.

Franchak, J. M., & Shiffrar, M. (2006, May). *Body form and position influence the perceived speed of human gait*. Poster presented at the meeting of the Vision Sciences Society, Sarasota, FL.

INVITED TALKS

(2014) Department of Psychology, Tufts University, Medford, MA

(2014) Department of Psychology, University of California-Riverside, Riverside, CA

(2013) Workshop on Eye Tracking Methods and Analysis, Center for Interdisciplinary Study, Bielefeld University, Bielefeld, Germany

(2012) Department of Psychology, Bard University, Annandale-on-Hudson, NY

(2012) Developmental Psychology Program, Columbia Teachers College, New York, NY

(2012) Department of Psychology, Rutgers University, Newark, NJ

(2012) Department of Psychology, Stony Brook University, Stony Brook, NY

(2011) Department of Psychology, University of Connecticut, Storrs, CT

(2011) Department of Psychology, Princeton University, Princeton, NJ

(2010) Workshop for Perception and Action, Rauischholzhausen Castle, Germany

RESEARCH FEATURED IN PUBLIC MEDIA

Thomas, J. (2011, December 15). Eye-tracking device travels with toddlers. *Simon's Foundation Autism Research Initiative*. <http://sfari.org/news-and-opinion/toolbox/2011/eye-tracking-device-travels-with-toddlers>

Lew, D. (2010, October 11). New studies reveal infants' world of vision. *Science/Health News, Voices of America*. <http://www.voanews.com/english/news/health/New-Studies-Reveal-Infants-World-Of-Vision-104716684.html>

Choi, C. (2010, August 17). Looking this way and that, and learning to adapt to the world. *New York Times*, p. D3. <http://www.nytimes.com/2010/08/17/science/17gaze.html>

TEACHING EXPERIENCE

Adjunct Professor, Psychology Department, New York University
Summer 2010, Developmental Psychology

Teaching Assistant, Psychology Department, New York University
Fall 2007 - Laboratory Methods in Developmental Psychology

Teaching Assistant, Psychology Department, New York University
Fall 2006 - Developmental Psychology

Teaching Assistant, Computer Science Department, University of Virginia
Fall 2003 - Software Engineering

Guest Lecturer, “Gene-Environment Interactions”, New York University
February 2, 2010 - Developmental Psychology

Guest Lecturer, “Social Learning Theory”, Saint Peter’s College
April 15-16, 2009 - Child and Adolescent Development

Guest Lecturer, “Methods in Perceptual-Motor Development”, New York University
October 10, 2007 - Laboratory in Developmental Psychology

PROFESSIONAL AFFILIATIONS

American Psychological Society
Cognitive Development Society
International Society for Developmental Psychobiology
International Society for Infant Studies
New York Academy of Sciences
Society for Research in Child Development
Vision Sciences Society

PROFESSIONAL AND ACADEMIC SERVICE

Ad Hoc Reviewer: *Behavioral Research Methods, Developmental Science, Experimental Brain Research, Child Development, Infancy, Journal of Experimental Child Psychology, Journal of Cognition and Development, Journal of Motor Behavior, Perception, Vision Research*

Student Representative: NYU Department of Psychology, 2008-2009

Advised 9 Undergraduate Research Projects

Advised 4 Undergraduate Honors Theses:

Angela Char, 2011: *Do younger and older adults accurately perceive affordances for passage?*

Emma Celano, 2011: *Gait modifications for locomotion through horizontal and vertical openings.*
Departmental Award for Outstanding Honors Thesis.

Larissa Gabelman, 2009: *Head-mounted eye-tracking of children and adults during complex, bimanual tasks.* Outstanding Undergraduate Research Award, International Conference on Infant Studies.

Dina van der Zalm, 2008: *The effect of action experience on perceptual judgment.* Departmental Award for Outstanding Honors Thesis.