

John M. Franchak

Curriculum Vitae
(April 28, 2017)

CONTACT INFORMATION

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EMPLOYMENT AND EDUCATION

2014-current Assistant Professor
Department of Psychology, **University of California, Riverside**

2013-2014 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 Lab Coordinator, Department of Psychology, **Rutgers University, Newark**
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

PEER-REVIEWED PUBLICATIONS

Franchak, J. M. (in press). Exploratory behaviors and recalibration: What processes are shared between functionally-similar affordances? *Attention, Perception, & Psychophysics*.

Adolph, K. E., & **Franchak, J. M.** (in press). The development of motor behavior. *WIREs Cognitive Science*.

Franchak, J. M., Heeger, D. J., Hasson, U., & Adolph, K. E. (2016). Free viewing gaze behavior in infants and adults. *Infancy, 21*, 262-287.

Franchak, J. M., & Yu, C. (2015). Visual-motor coordination in natural reaching of young children and adults. *Proceedings of the 37th annual meeting of the Cognitive Science Society*.

- Nayer, K., **Franchak, J. M.**, Adolph, K. E., & Kiorpes, L. (2015). From local to global processing: The development of illusory contour perception. *Journal of Experimental Child Psychology*, *131*, 38-55.
- Bambach, S., **Franchak, J. M.**, Crandall, D. J., & Yu, C. (2014). Detecting hands in children's egocentric views to understand embodied attention during social interaction. *Proceedings of the 36th annual meeting of the Cognitive Science Society*.
- Lee, S., Bambach, S., Crandall, D. J., **Franchak, J. M.**, Yu, C. (2014). This hand is my hand: A probabilistic approach to hand disambiguation in egocentric video. *Proceedings of the 2014 IEEE Conference on Computer Vision and Pattern Recognition*. [Best Paper Award, CVPR]
- Kretch, K. S., **Franchak, J. M.**, & Adolph, K. E. (2014). Crawling and walking infants see the world differently. *Child Development*, *85*, 1503-1518.
- Franchak, J. M.**, & Adolph, K. E. (2014). Gut estimates: Pregnant women adapt to possibilities for squeezing through doorways. *Attention, Perception, & Psychophysics*, *76*, 460-472.
- Franchak, J. M.**, & Adolph, K. E. (2014). Affordances for action as probabilistic functions: Implications for development, perception, and decision-making. *Ecological Psychology*, *26*, 109-124. [Special issue honoring Herb Pick].
- 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].

BOOK CHAPTERS

Franchak, J. M. (in press). Using head-mounted eye tracking to study development. In B. Hopkins, E. Geangu, & S. Linkenauger (Eds.), *The Cambridge Encyclopedia of Child Development* (2nd ed.). Cambridge: Cambridge University Press.

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.

HONORS AND AWARDS

- 2015 Rising Star, **Association for Psychological Science**
- 2015 Regents Faculty Fellowship, **University of California, Riverside**
- 2014 Intel Best Paper Award “This hand is my hand: A probabilistic approach to hand disambiguation in egocentric video”, **IEEE Conference on Computer Vision and Pattern Recognition**
- 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

Richert, R., Schlesinger, M., & **Franchak, J. M.** (2016, October). Children attend to and learn more from characters who try hard. Paper presented at the SRCD Special Topic Meeting in Technology and Media in Children’s Development, Irvine, CA.

Franchak, J. M., & Yu, C. (2015, July). Visual-motor coordination in natural reaching of young children and adults. Paper presented at the meeting of the Cognitive Science Society, Pasadena, CA.

Franchak, J. M., & Adolph, K. E. (2015, July). Action experience facilitates recalibration to changing affordances when squeezing through doorways. Paper presented at the International Conference on Perception and Action, Minnesota, MN.

Franchak, J. M., & Yu, C. (2014, July). Infant’s coordination of the eyes, hands, and head while guiding reaching movements. Paper presented at the International Conference on Infant Studies, Berlin, Germany.

Franchak, J. M., Kretch, K. S., Heeger, D. H., Hasson, U., & Adolph, K. E. (2014, July). Infants’ visual exploration of faces in screen-based and real world tasks. Paper presented at the International Conference on Infant Studies, Berlin, Germany.

- Bambach, S., **Franchak, J. M.**, Crandall, D. J., & Yu, C. (2014, July). Detecting hands in children's egocentric views to understand embodied attention during social interaction. Paper presented at the 36th annual meeting of the Cognitive Science Society, Quebec City, Canada.
- 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 ORGANIZING

- Franchak, J. M.** (2014, July). Symposium Chair. What head-mounted eye tracking reveals about infants' active vision. International Conference on Infant Studies, Berlin, Germany.

CONFERENCE PRESENTATIONS

- Franchak, J. M.**, & Yu, C. (2016, May). *Infants structure their visual experiences to favor toys over faces during play*. Poster presented at the International Congress on Infant Studies, New Orleans, LA.

- 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

(2016) Department of Psychology, University of Nevada, Las Vegas, Las Vegas, NV
 (2016) Department of Psychology, California State University Long Beach, Long Beach, CA
 (2015) Center for Mind and Brain, University of California, Davis, Davis, CA
 (2015) Department of Psychology, University of Oregon, Eugene, OR
 (2014) Department of Cognitive Science, University of California-San Diego, San Diego, CA
 (2014) ICIS Preconference Workshop on Head-Mounted Eye Tracking, Berlin, Germany
 (2014) Department of Psychology, Tufts University, Medford, MA
 (2014) Department of Psychology, University of California-Riverside, Riverside, CA
 (2014) 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, 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>

PROFESSIONAL AFFILIATIONS

Cognitive Development Society, International Society for Developmental Psychobiology, International Congress on Infant Studies, Society for Research in Child Development, Vision Sciences Society

PROFESSIONAL AND ACADEMIC SERVICE

(2017) Panel Reviewer, Society for Research in Child Development
 (2016) Panel Co-Chair, International Congress on Infant Studies
 (2016) Panel Reviewer, SRCD Special Topics Meeting on Technology and Media in Children's Development
 (2015) Scientific Committee, International Conference on Perception and Action

Ad Hoc Reviewer: *Behavioral Research Methods, Cambridge University Press, Canadian Journal of Experimental Psychology, Child Development, Cognition, Cognitive Science, Developmental Psychology, Developmental Science, Ecological Psychology, Experimental*

Brain Research, Infancy, Infant Behavior and Development, Journal of Experimental Child Psychology, Journal of Experimental Psychology: Human Perception & Performance, Journal of Cognition and Development, Journal of Motor Behavior, Journal of Motor Learning and Development, Journal of Nonverbal Behavior, National Science Foundation, Perception, Scientific Data, Vision Research