

## John M. Franchak

Curriculum Vitae  
(July 15, 2014)

### **CONTACT INFORMATION**

900 University Avenue  
University of California, Riverside  
Department of Psychology  
Riverside, CA 92521

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lab: Olmstead 2136

### **EMPLOYMENT AND EDUCATION**

2014-current	Assistant Professor Department of Psychology, <b>University of California, Riverside</b>
2013-2014	Post-Doctoral Fellow Department of Psychological and Brain Sciences, <b>Indiana University</b> Sponsors: Chen Yu & Linda Smith
2011-2013	Post-Doctoral Researcher Department of Psychology and Center for Neural Science, <b>New York University</b> Sponsors: Karen Adolph & David Heeger
2009-2011	Ph.D., Experimental Psychology, <b>New York University</b> Advisor: Karen Adolph
2006-2009	M.A., Experimental Psychology, <b>New York University</b>
2005-2006	Research Scientist, Department of Psychology, <b>Rutgers University</b> Sponsor: Margaret Shiffrar
2001-2005	B.A., Cognitive Science, <b>University of Virginia</b> 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**

- 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 36<sup>th</sup> 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].
- 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**

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|------|---|
| 2014 | Best Paper Award "This hand is my hand: A probabilistic approach to hand disambiguation in egocentric video", <b>IEEE Conference on Computer Vision and Pattern Recognition</b>                                   |
| 2013 | Postdoctoral Trainee, NICHD Training Grant, 5T32HD7475-17, "Training Program in Integrative Developmental Process", <b>Indiana University</b>   |
| 2012 | Best Methodological Paper "Understanding the development of motion processing by characterizing optic flow experienced by infants and their mothers", <b>International Conference on Learning and Development</b> |
| 2011 | Martin Braine Dissertation Award, <b>New York University</b>  |
| 2010 | Best Paper Award "Head-mounted eye-tracking of infants' natural interactions:   |

- 2010 A new method", **Eye Tracking Research & Applications**  
 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**

- 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.
- 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 15<sup>th</sup> 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.**, 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) 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
- (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

### **PROFESSIONAL AFFILIATIONS**

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

### **PROFESSIONAL AND ACADEMIC SERVICE**

**Ad Hoc Reviewer:** *Behavioral Research Methods, Developmental Psychology, 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.