

Curriculum Vitae (February, 2018)
JAYA RACHWANI

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EDUCATION

2011 – 2014	Ph.D., Human Physiology and Neuroscience, University of Oregon, Oregon, OR, Supervisor: Marjorie H. Woollacott
2009 – 2010	M.A., Neuroscience, Institute of Castilla y León, University of Salamanca, Spain
2008 – 2009	M.A., Neurorehabilitation, Department of Physical Therapy, San Antonio Catholic University of Murcia, Spain
2007 – 2008	M.A., Pediatric Physical Therapy, International University of Barcelona, Spain
2004 – 2007	B.S., Physical Therapy, Department of Health Science, University of Malaga, Spain.

PROFESSIONAL EXPERIENCE

2015 – current	Postdoctoral Fellow, Department of Psychology, New York University, NY, Supervisor: Karen E. Adolph
2017	Adjunct Instructor, 'Analysis & Synthesis of Human Motion II' Physical Therapy Department, New York University, NY
2011 – 2014	Graduate Student Fellow, Human Physiology Department, University of Oregon, OR
2011 – 2014	Lab Instructor, 'Motor Control' Human Physiology Department, University of Oregon, OR
2012 – 2013	Teaching Assistant, 'Exercise in Medicine' Human Physiology Department, University of Oregon, OR
2012 – 2013	Teaching Assistant, 'Alternative Medicine' Human Physiology Department, University of Oregon, OR
2009 – 2011	Official English to Spanish Translator for Physical Therapy Courses
2008 – 2011	Pediatric and Adult Neurologic Physical Therapist, Malaga, Spain
2010	Pediatric Physical Therapist, Early Intervention Program, Malaga, Spain
2008	Pediatric Physical Therapist, San Juan de Dios Hospital, Barcelona, Spain
2007 – 2008	Orthopedic Physical Therapist, San Juan de La Cruz Clinic, Malaga, Spain

SCIENTIFIC AWARDS

2017	Travel Award: \$500. International Society for Developmental Psychobiology.
2014	Eugene Evonuk Award: \$10,000 Scholarship. Human Physiology Department, University of Oregon, OR
2014	Betty Foster McCue Scholarship: \$5,000. Graduate School of University of Oregon, OR
2010	Accesit Award of Investigation. Ilustrious Professional College of Physical Therapists of Andalucia, Spain.

RESEARCH INTERESTS

Development of postural control; development of sitting; development of reaching and visual-manual coordination; early motor interventions; cerebral palsy

PUBLICATIONS

1. Adolph, K.E., **Rachwani, J.**, & Hoch, J.E.* (in press). Motor and physical development: Locomotion. *Neuroscience and Biobehavioral Psychology*. Elsevier.
2. **Rachwani, J.**, Soska, K.C., & Adolph, K.E. (2017). Behavioral flexibility in learning to sit. *Developmental Psychobiology*. 1-12. Early view.
3. Santamaria, V., **Rachwani, J.**, Manselle, W., Saavedra, S.L., & Woollacott, M.H. (2017). The impact of segmental trunk support on reaching and posture while sitting in healthy adults. *Journal of Motor Behavior*, 50, 51-64.
4. Santamaria, V. & **Rachwani, J.** (2017). Clinical case in cerebral palsy. *Motor control: Translating research into clinical practice* (5th edition). In A. Shumway-Cook & M.H. Woollacott (Eds.). Baltimore, MD: Lippincott Williams & Wilkins.
5. Santamaria, V., **Rachwani, J.**, Saavedra, S.L., & Woollacott, M.H. (2016). The impact of segmental trunk support on posture and reaching in children with moderate and severe cerebral palsy. *Pediatric Physical Therapy*, 28, 285-93.
6. **Rachwani, J.**, Santamaria, V., Saavedra, S.L., & Woollacott, M.H. (2015). The development of trunk control and its relation to reaching in infancy: A longitudinal study. *Frontiers in Human Neuroscience*, 9, 94.
7. Santamaria, V. & **Rachwani, J.** (2014). Literature Review: XL Scientific Document. Development of reach-to-grasp & related sensorimotor systems in typical developing infants. *Sociedad Española de Fisioterapia en Pediatría*.
8. **Rachwani, J.**, Santamaria, V., Saavedra, S.L., Wood, S., Porter, F., & Woollacott, M.H. (2013) Segmental trunk control acquisition and reaching in typically developing infants. *Experimental Brain Research*, 228, 131-139.
9. Santamaría González V.F. & **Rachwani Parshotam J.** (2010). Physiotherapy in haemophilic arthropathy of the knee. *Cuestiones de Fisioterapia*, 39, 68-77.

MANUSCRIPTS UNDER REVIEW & INVITED CHAPTERS

* *Student authors*

1. **Rachwani, J.** & Adolph, K. E. (invited chapter). Action in development: Variability, flexibility, and plasticity. In C. S. Tamis-LeMonda & J. J. Lockman (Eds.). Handbook of infant development. Cambridge University Press.
2. Adolph, K. E., Hoch, J.*, & **Rachwani, J.** (invited chapter). Locomotion and manipulation. In J. Wagman & J. Blau (Eds.). Perception as information detection: Reflections on Gibson's ecological approach to visual perception. New York: Taylor & Francis.
3. **Rachwani, J.**, Golenia, L.*, Herzberg-Keller, O.*, & Adolph, K.E. (under review). Postural, visual, and manual coordination in the development of prehension. *Child Development*.
4. Hoch, J.*, **Rachwani, J.**, & Adolph, K.E. (in revision). Why infants move: Locomotor exploration is not directed toward destinations. *Child Development*.

MANUSCRIPTS IN PREPARATION

* *Student authors*

1. **Rachwani, J.**, Soska, K.C. & Adolph, K.E. (in prep). Flexibility in reaching: Inter- and intra-individual variability.

2. **Rachwani, J.**, Tamis-LeMonda, C.S., Karasik, L.B., Lockman, J.J., & Adolph, K.E. (in prep). How children discover the “hidden affordances” of everyday objects.
3. **Rachwani, J.**, Kaplan, B.E.*, Tamis-LeMonda, C.S., & Adolph, K.E. (in prep). Hidden affordances in plain sight: Discovering possibilities for action with Duplo bricks.
4. **Rachwani, J.**, Borenstein, H.*, Kaplan, B.E.*, Tamis-LeMonda, C.S., & Adolph, K.E. (in prep). A toy’s story: Exploration, discovery, implementation, and construction.
5. Soska, K.C., **Rachwani, J.**, von Hofsten, C., Rosander, K., & Adolph, K.E. (in prep). Infants plan prehension while pivoting.
6. Herzberg-Keller, O.*, **Rachwani, J.**, Kaplan, B.E.*, O’Grady, S.M.*, Comalli, D.M., & Adolph, K.E. Flexibility in action: How infants and adults navigate under a barrier.

CONFERENCE PRESENTATIONS

** Student authors*

- Rachwani, J.**, Soska, K.C., & Adolph, K.E. (2018, July). A systems approach to the development of reaching. International Congress on Infant Studies. Philadelphia, PA.
- Rachwani, J.**, Kaplan, B.E.*, Tamis-LeMonda, C.S., Karasik, L.B., Lockman, J.J., & Adolph, K.E. (2018, July). Learning the designed actions of everyday objects. International Congress on Infant Studies. Philadelphia, PA.
- Kaplan, B.E.*, **Rachwani, J.**, Sida, A.*, Vasa, A.*, Tamis-LeMonda, C.S., & Adolph, K.E. (2018, July). Perceptual-motor exploration and problem solving: Learning the designed action of duplo bricks. International Congress on Infant Studies. Philadelphia, PA.
- Borenstein, H.*, Chen, A.*, Xu, M.*, Kaplan, B.E.*, **Rachwani, J.**, Tamis-LeMonda, C.S., & Adolph, K.E. (2018, July). A toy’s story: Exploration, discovery, implementation, and construction. International Congress on Infant Studies. Philadelphia, PA.
- Herzberg, O.*, **Rachwani, J.**, Kaplan, B.E.*, O’Grady, S.M.*, Comalli, D.M., & Adolph, K.E. (2017, November). Flexibility in action: How infants and adults navigate under a barrier. International Society for Developmental Psychobiology, Washington, DC.
- Kaplan, B.E.*, **Rachwani, J.**, Tamis-LeMonda, C.S., & Adolph, K.E. (2017, November). Hidden affordances in plain sight: Discovering possibilities for action with Duplo bricks. International Society for Developmental Psychobiology, Washington, DC.
- Rachwani, J.**, & Adolph, K.E. (2017, November). Challenges to developmental research on sitting and reaching. International Society for Developmental Psychobiology, Washington, DC.
- Hoch, J.*, **Rachwani, J.**, & Adolph, K.E. (2017, April). Why do infants move? Locomotor exploration is more random than destination directed. Society for Research in Child Development, Austin, TX.
- Rachwani, J.**, Golenia, L.*, Herzberg-Keller, O.E.*, Borenstein, H.*, De Velez, L.P.*, & Adolph, K.E. (2017, April). Visual, manual, and postural coordination in the development of prehension. Society for Research in Child Development, Austin, TX.
- Hoch, J.*, **Rachwani, J.**, & Adolph, K.E. (2016). Why do infants move? Locomotor exploration is not directed toward visible goals. International Congress on Infant Studies, New Orleans, LA.
- Rachwani, J.**, Soska, K.C., Hurwitz, L.B., & Adolph, K.E. (2016, May). Infants’ adaptation to a sloping SITUation: Maintaining balance while sitting on a sloping surface. International Congress on Infant Studies, New Orleans, LA.
- Rachwani, J.**, Soska, K.C., von Hofsten, C., Rosander, K., & Adolph, K.E. (2016, May). Infants plan prehension while pivoting. International Congress on Infant Studies, New Orleans, LA.

- Rachwani, J.**, Santamaria, V., Saavedra, S.L., & Woollacott, M.H. (2015, June). The Development of Trunk Control and its Relation to Reaching: A Longitudinal Study. International Society for Posture and Gait Research, Seville, Spain.
- Santamaria, V., **Rachwani, J.**, Saavedra, S.L., & Woollacott, M.H. (2015, June). The Impact of Segmental Trunk Support on Posture and Reaching in Children with Cerebral Palsy: A Kinematic and Electromyographic Study. International Society for Posture and Gait Research, Seville, Spain.
- Santamaria, V., **Rachwani, J.**, Manselle, W., Saavedra, S.L., & Woollacott, M.H. (2014, November). The Impact of Segmental Trunk Support on a Reach-to-Grasp Task while Sitting. Society for Neuroscience, Washington DC, WA.
- Rachwani, J.**, Santamaria, V., Saavedra, S.L., & Woollacott, M.H. (2014, July). The Development of Trunk Control and its Relation to Reaching: A Longitudinal Study. The International Society on Infant Studies, Berlin, Germany.
- Rachwani, J.**, Santamaria, V., Saavedra, S.L., Wood, S., Porter, F., & Woollacott, M.H. (2013, October) Segmental Trunk Control Acquisition and Reaching in Typically Developing Infants. American Academy for Cerebral Palsy and Developmental Medicine, Millwaukee, USA.
- Santamaria, V., Riobos, A., Heredia, M., **Rachwani, J.**, de la Fuente, J., Criado, J., Nava, M., & Yajeya, J. (2012, October). Motor Recovery after a Frontal Cortex Lesion in Adult Rats Applying a Short-Term Rehabilitation Protocol in a Critical Period of Time. Society for Neuroscience, New Orleans, LA.
- Rachwani Parshotam, J.**, Santamaría González, V.F., De Ru, E. (2010, May). Functional Effects of Strengthening Programmes in Spastic Diplegia. National Conference of the Spanish Society in Pediatric Physical Therapy, Valladolid, Spain.
- Rachwani Parshotam, J.**, Santamaría González, V.F., & De Ru, E. (2009, June). Functional Effects of Strengthening Programmes in Spastic Diplegia. Annual Meeting of the of the European Academy of Childhood Disability: From Myth to Evidence, Lithuania, Vilnius.
- Santamaría González, V.F., & **Rachwani Parshotam, J.** (2009, April). Physiotherapy in Haemophilic Children. XII National Conference in Pediatric Physical Therapy, Murcia, Spain.

INVITED COLLOQUIA

- (2017) Spanish Society of Pediatric Physical Therapy, Seville, Spain.
- (2017) Teachers College, New York, NY.
- (2014) Therapy in Educational Settings, Eugene, OR.

WORKSHOPS

- (2015) Lab instructor in Postural Control Workshop, University of Alcalá de Henares, Madrid Spain.
- (2015) Assistant in Coding and Sharing Video with Databrary and Datavyu Workshop, Society for Research in Child Development, Philadelphia, PA.
- (2013) Organizer of DAFOS Cascade Workshop, Spanish Society in Pediatric Physical Therapy, Malaga, Spain.

POSTGRADUATE CLINICAL COURSES

- Neurodevelopmental Treatment (NDT) in adults: Bobath Concept
Perfetti Method
Kinetic Control: Understanding Movement and Function – Concepts

Pediatric Kinesiotaping
Workshop DAFO's Cascade
Topics in Physical Therapy - Pediatrics (APTA)
Functional Physical Therapy in Pediatrics
Spontaneous General Movements in Newborns
Scoliosis Workshop

PROFESSIONAL LICENSURE

2014 – current Eligibility for Licensure Approved by FCCPT and NYSED
2007 – 2012 Licenced by Ilustre Colegio de Fisioterapeutas de Andalucía, Spain.

PROFESSIONAL SERVICE AND MEMBERSHIP

2008 – current Delegate of Andalucia for the Spanish Society in Pediatric Physical
Therapy.
2005 – 2007 Student Secretary for European Higher Education. Health Science College of
Malaga, Physical Therapy Department: The Bologna Plan.

RESEARCH MENTOR

Advised 1 undergraduate honors theses & 6 independent research projects
Sponsored 2 talks & 4 undergraduate research conferences
Mentored 2 students who obtained support from NYU's Dean's Undergraduate Research Fund
(2017)

CERTIFICATIONS

CPR & AED
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