

# CURRICULUM VITAE

**Jessica M. Walker, Ph.D.**

## Assistant Professor, Instructional Faculty

Department of Psychology

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# EDUCATION

- |      |  |
|------|--|
| 2011 | <b>Ph.D., Cognitive Neuroscience</b><br><b>University of California, Los Angeles</b><br>Advisors: Patricia Cheng, Ph.D. and James Stigler, Ph.D.<br>Dissertation: Integrating Implicit and Explicit Knowledge in Mathematics Through Causal Learning: A Causal Contrast Approach |
| 2004 | <b>M.A., Cognitive Psychology</b><br><b>University of California, Los Angeles</b><br>Advisor: Russ Poldrack, Ph.D.<br>Thesis: Asymmetries in Predictive and Diagnostic Causal Learning   |
| 2001 | <b>B.A., Philosophy</b> , with honors<br><b>B.A., Psychology</b> , with honors<br><b>The College of New Jersey</b><br>Magna cum laude  |

## **TEACHING EXPERIENCE**

## Academic Appointments

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|-----------------------------|---|
| February 2014 to present    | <b>Assistant Professor, Psychology, Chapman University Orange, CA</b><br>Learning, Statistics for Behavioral Science, Physiological Psychology, History & Systems of Psychology, Cognitive Psychology |
| August 2013 to January 2014 | <b>Adjunct Professor, Psychology, Chapman University, Orange, CA</b><br>Cognitive, Lifespan Development   |
| Spring 2010                 | <b>Instructor, Interdisciplinary Cluster Program, UCLA Seminar:</b> A Neuropsychological Approach to Understanding Cognition and the Human Brain  |
| Spring 2011                 |   |

September 2005 to August 2007	<b>Adjunct Professor, Psychology, Rowan University, Glassboro, NJ</b> Intro to Psychology: Brain, Mind, Behavior; History & Systems
January 2005 to June 2007	<b>Adjunct Professor, Psychology, TCNJ, Ewing, NJ</b> General Psychology, Methods & Tools of Psychology, Behavioral Statistics

## Lectures by Invitation

February 15, 2013;	<b>Guest Lecturer, California Institute of Technology (Caltech)</b>
February 27, 2013	Cognitive Psychology
March 2004	<b>Guest Lecturer, UCLA</b> Principles of Behavioral Neuroscience

## Teaching Assistantships

September 2009	<b>Teaching Fellow, Interdisciplinary Cluster Program, UCLA</b>
June 2011	Evolution of the Cosmos & Life
September 2007 to August 2009	<b>Teaching Assistant, Department of Psychology, UCLA</b>

## **MENTORING AND ADVISING EXPERIENCE**

June 2013 to August 2013	<b>Faculty Mentor</b> <b>Summer Undergraduate Research Fellowship (SURF)</b> Department of Psychology, Chapman University
September 2013 to December 2013	<b>Advisor: Individual Research (PSY 499)</b> Department of Psychology, Chapman University
January 2011 to December 2013	<b>Supervisor: Directed Independent Research, Senior Thesis</b> Department of Psychology, UCLA
January 2007 to May 2007	<b>Advisor: Senior Capstone Thesis</b> Department of Psychology, The College of New Jersey, Ewing, NJ

## **RESEARCH EXPERIENCE**

## **Postdoctoral Experience**

September 2013 to January 2014	<b>Research Associate Level III, Psychology, UCLA</b> PI: Patricia Cheng, Ph.D.
August 2011 to August 2013	<b>Postdoctoral Scholar, Psychology, UCLA</b> <b>Center for Advanced Technology in Schools</b> PIs: Keith Holyoak, Ph.D. and James Stigler, Ph.D.

## **Research Assistantship**

August 2004 to                   **Research Specialist, Neurology, University of Pennsylvania**  
June 2005                         **Center for Functional Neuroimaging (fMRI)**  
  PI: Geoffrey Aguirre, M.D., Ph.D.

## **LECTURES & COLLOQUIA**

Walker, J.M. (2013, September). Discovering the causality in math: Causal contrast comparisons for teaching mathematics. Talk presented at UCLA Developmental Forum Research Colloquium, Los Angeles, CA.

Walker, J.M. (2012, March). The causal contrast approach to learning mathematics. Talk presented at the UCLA Cognitive Forum Research Colloquium, Los Angeles, CA.

Walker, J.M. (2010, October). Causal contrast comparisons support goal-directed reasoning. Talk presented at UCLA Cognitive Forum Research Colloquium, Los Angeles, CA.

## **CONFERENCE & WORKSHOP PRESENTATIONS**

Walker, J.M. (2014, May). Causal Contrasts for Algebra Learning. Talk presented in Relational Understanding in Mathematics: Issues and Interventions Symposium, J. W. Stigler (Chair), at 26<sup>th</sup> Association for Psychological Sciences (APS) Annual Convention, San Francisco, CA.

Ye, J.P., Walker, J.M., & Cheng, P.W. (2013, May). Causal Contrasts and Self-explanation in Mathematics Teaching. Poster presented at UCLA Psychology Undergraduate Research Conference (PURC), Los Angeles, CA.

Ye, J.P., Walker, J.M., & Cheng, P.W. (2013, May). Causal Contrasts and Self-explanation in Mathematics Teaching. Poster presented at Stanford Undergraduate Psychology Conference (SUPC), Palo Alto, CA.

Walker, J.M. (2012, November). The Front End: What Cognitive Psychology Can Offer Math Learning Games. Talk presented at the Educational Technology Workshop sponsored by the Center for Advanced Technology in Schools (CATS) and the Institute for Education Sciences (IES), Los Angeles, CA.

Delacruz, G., Walker, J.M., Chung, G. (2012, September). Math games and learning. Talk presented at IES Principal Investigators Meeting within the Society for Research on Educational Effectiveness (SREE) Conference, Washington D.C.

Walker, J.M., Cheng, P.W. (2011, July). Applying causal learning to mathematics learning. Talk presented at the Annual Summer Interdisciplinary Conference (ASIC), Pyrenees, Spain.

Prasad, S, Aguirre, G. K., Walker, J.M., Brainard, D. H., Chatterjee A. (2005). Area V5/MT demonstrates altered temporal responses in Riddoch syndrome. Poster presented at the American Academy of Neurology Annual Meeting, Miami, FL.

Aguirre, G. K., Komaromy, A. M., Brainard, D. H., Walker, J. M., Maguire, A. M., Bennett, J., Hauswirth, W. W., Acland, G. M., Aguirre, G. D. (2005). fMRI of recovered cortical visual responses following gene therapy in dogs. Poster presented at the ARVO Annual Meeting, Ft. Lauderdale, FL.

## HONORS AND AWARDS

- 2014      Summer Undergraduate Research Fellowship (SURF) Mentor, Chapman University
- 2011      Academic Senate Distinguished Teaching Assistant Award, Honorable Mention, UCLA
- 2004      Summer Research Mentorship Award (Fellowship), UCLA
- 2003      Summer Incentive Award, UCLA Department of Psychology
- 2002–2003    First-year Graduate Fellowship, UCLA Department of Psychology
- 2001      Phi Kappa Phi Student Research Award, The College of New Jersey
- 2001      Phi Kappa Phi
- 1996–2001    Edward J. Bloustein Distinguished Scholar of New Jersey, The College of New Jersey
- 1996–2001    Merit Scholar, The College of New Jersey

## PROFESSIONAL AFFILIATIONS

- American Psychological Association
- Association for Psychological Science
- Cognitive Neuroscience Society
- Cognitive Science Society

## AD HOC REVIEWER

*Frontiers in Cognition*

*Cognitive Psychology*

## MANUSCRIPTS UNDER REVIEW

Walker J.M., Stigler, J.W., & Holyoak, K.J. (2014). Causal Contrasts for Teaching Conceptual Understanding of Number Lines. Invited revision resubmitted, *Cognition and Instruction*.

Walker, J.M., Cheng, P.W., & Stigler, J.W. (2015). Equations Are Effects: Using Causal Contrasts to Support Algebra Learning. Under review, *Frontiers in Cognition*.

## PUBLICATIONS

- Walker, J. M., Cheng, P.W., & Stigler, J.M. (2014). Equations Are Effects: Using Causal Contrasts to Support Algebra Learning. In P. Bello, M. Guarini, M. McShane, & B. Scasellati. (Eds.), *Proceedings of the 36<sup>th</sup> Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
- Waldmann, M. R. & Walker, J.M. (2005). Competence and Performance in Causal Learning. *Learning & Behavior*, 33 (2), 211 – 223.
- Leynes, P.A., Landau, J.D. & Walker, J.M. (2005). Event-Related Potential (ERP) Evidence for Multiple Causes of the Revelation Effect. *Consciousness & Cognition*, 14 (2), 327 – 350.