

EDUCATION

Ph.D., Education, Quantitative Measurement and Evaluation, U.C. Berkeley, 2008

Dissertation title: Improving the Measurement of Emotional Intelligence

Committee: Mark Wilson (chair), Sophia Rabe-Hesketh, Dacher Keltner

M.A., Education, Quantitative Measurement and Evaluation, U.C. Berkeley, 2005

Thesis advisor: Carolyn Hofstetter

B.A., Psychology, U.C. Berkeley, 2001

Honors thesis advisor: Dacher Keltner

RESEARCH INTERESTS

Philosophy of measurement

Validity

Generalized latent variable modeling

Method effects and local item dependence

Non-cognitive assessment

POSITIONS HELD

Assistant Professor, University of Colorado at Boulder, School of Education, Research and Evaluation Methodology, August 2012 – present

Postdoctoral Fellow, University of Oslo, Institute for Teacher Education and School Research, Unit for Quantitative Analysis in Education, September 2009 – August 2012

Lecturer, San Jose State University, Department of Psychology, August 2008 – May 2009

Graduate Student Researcher, Berkeley Evaluation and Assessment Research (BEAR) Center, June 2007 – May 2008

Supervisor: Mark Wilson

Graduate Student Instructor, University of California at Berkeley, Graduate School of Education, August 2003 – June 2004, August 2004 – June 2005, August 2005 – December 2005, August 2007 – December 2007

Supervisors: Sophia Rabe-Hesketh, Mark Wilson, and Deborah Curtis

Graduate Student Instructor, University of California at Berkeley, Department of Psychology, January 2006 – May 2006

Supervisor: Arthur Shimamura

Research Intern, Educational Testing Service, Department of New Constructs, summer 2005

Supervisors: Richard Roberts and Ralf Schulze

Graduate Student Researcher, University of California at Berkeley, summer 2004

Supervisor: David Stern

PUBLICATIONS

Refereed Journal Articles:

Maul, A. (2012). The validity of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) as a measure of emotional intelligence. *Emotion Review*, 4, 394-402.

Arya, D., & Maul, A. (2012). The role of the scientific discovery narrative in middle school science education: An experimental study. *Journal of Educational Psychology*. doi: 10.1037/a0028108

Maul, A. (2011). Examining the structure of emotional intelligence at the item level: New perspectives, new conclusions. *Cognition and Emotion*, 26, 503-520.

Hopfenbeck, T., & Maul, A. (2011). Examining evidence for the validity of PISA learning strategy scales based on student response processes. *International Journal of Testing*, 11, 95-121.

Maul, A. (2011). The factor structure and cross-test convergence of the Mayer-Salovey-Caruso model of emotional intelligence. *Personality and Individual Differences*, 50, 457-463.

Roberts, R., Schulze, R., O'Brien, K., Reid, J., MacCann, C., & Maul, A. (2006). Exploring the validity of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) with established emotions measures. *Emotion*, 6, 663-669.

Book Chapters:

Cunningham, A., Stanovich, K., & Maul, A. (2011). Of correlations and causes: Exploring associations with reading experience. In Duke, N., & Mallette, M. (Eds.) *Literacy Research Methodologies*, 2nd Edition. New York: The Guilford Press.

Stern, D., Wu, C., Dayton, C., & Maul, A. (2006). Learning by Doing Career Academies. In Neumark, D. (Ed.), *Improving School-to-Work Transitions* (134-168). New York: Russell Sage Foundation.

Commentaries and Reviews:

Maul, A. (2012). Higher standards of validity evidence are needed in the measurement of emotional intelligence. *Emotion Review*, 4, 411-412.

Maul, A. (2012). Book review: "The concept of validity: Revisions, new directions, and applications, R. Lissitz (Ed.)." *Journal of Educational Measurement*, 48, 457-461.

Technical Report / White Paper:

Briggs, D., & Maul, A. (2011). Conceptual issues in establishing comparability of scales that include performance tasks. Paper commissioned by the National Center for the Improvement of Educational Assessment, Dover, NH.

Conference Presentations:

Maul, A. "On the role of metaphor in human science measurement." International Meeting of the Psychometric Society, Lincoln, July 10-12.

Maul, A. "The ontology of psychological attributes." National Council for Measurement in Education, Vancouver, April 14-16, 2012.

Maul, A. "Method effects: Syntax and semantics." American Education Research Association, Division D, Vancouver, April 13-17, 2012.

Maul, A., Irribarra, D., & Wilson, M. "What's philosophy got to do with measuring?" International Objective Measurement Workshop, Vancouver, April 11-12, 2012.

Maul, A. "Method effects and validity." International Meeting of the Psychometric Society, Hong Kong, July 18-22, 2011.

Briggs, D., & Maul, A. "The comparability of assessments that include performance tasks." National Council for Measurement in Education, New Orleans, April 10-12, 2011.

Arya, D. & Maul, A. "The role of the scientific discovery narrative in middle school science education: An experimental study." American Education Research Association, New Orleans, April 9-13, 2011.

Arya, D. & Maul, A. "Using a meaningfulness-based measurement approach to examine scientific understanding." EARLI Assessment SIG. Northumberland, U.K., August 31 – September 3, 2010.

Maul, A. "The effect of local item dependence on assessments of multidimensionality: An example from the Mayer-Salovey-Caruso Emotional Intelligence Test." Rasch Conference 2010: Copenhagen, June 13-16, 2010.

Maul, A. "Examining the Mayer-Salovey-Caruso Emotional Intelligence Test using multidimensional Rasch modeling." International Objective Measurement Workshop, Boulder, April 28-29, 2010.

Maul, A., & Kennedy, K. "Construct Map: Software demonstration," International Objective Measurement Workshop, New York, March 22-23, 2008.

Selected Working Papers:

Maul, A. On the ontology of psychological attributes.

Maul, A. Method effects: models, concepts, and consequences.

Maul, A., & Dolan, C. The multitrait-multimethod model with exploratory trait structure.

Maul, A., Wilson, M., & Irribarra, D. Realism, pragmatism, and the conceptual basis of measurement in the human sciences.

TEACHING EXPERIENCE

Assistant Professor, University of Colorado, Boulder

- Education 7396: Latent Variable and Structural Equation Models, Fall 2012
- Education 7456: Advanced Regression Including Multilevel Models, Spring 2013 (planned)

Postdoctoral Instructor, University of Oslo

- Educational and Psychological Measurement (Ph.D. course), Fall 2010 and Fall 2011
- Quantitative Methods in Science and Mathematics Educational Research (Ph.D. course; University of Copenhagen), Fall 2011
- Advanced Research Methods in Education (Master's course), Fall 2010
- Research Methods in Education (Master's course), Spring 2010 and Fall 2010
- Rasch Modeling (Ph.D / Master's course), Spring 2010
- Classical and Modern Test Theory (Ph.D. / Master's course), Fall 2009

Instructor, San Jose State University

- Statistics 095 / Psychology 095, Introduction to Statistics, Fall 2008 and Spring 2009

Graduate Student Instructor, University of California at Berkeley

- Education 274A, Measurement in the Social Sciences, Fall 2007
- Psychology 1, Introduction to Psychology, Spring 2006
- Education 274B, Measurement in the Social Sciences II, Fall 2005
- Education 275B, Data Analysis in the Social Sciences II, Spring 2004 and Spring 2005
- Education 293, Data Analysis in the Social Sciences I, Fall 2003 and Fall 2004

OTHER PROFESSIONAL EXPERIENCE

Invited Talks:

Method effects: Concepts and models. Invited presentation at the BEAR Seminar, University of California, Berkeley, April 4, 2011.

Methods variance, local item dependence, and the concept of validity. Invited presentation at the Psychology Department's Methodology Lab series, University of Amsterdam, January 24, 2011.

Integrating test design and psychometrics. Invited presentation at the University of Stavanger, January 11-12, 2010.

Improving the measurement of emotional intelligence. Invited presentation at the BEAR Seminar, University of California, Berkeley, March 31, 2009.

Consulting:

Methodological consultant with Collaborative Strategic Reading, led by Professor Janette Klingner, C.U. Boulder, September 2012 – present

Methodological consultant for Reading First, led by Professor David Pearson and Reading Plus, June 2011 – present

Statistical and psychometric consultant for Pathways to Reading, led by Professor Carol Booth Olsen, U.C. Irvine, and Professor David Pearson, U.C. Berkeley, May 2010 – April 2012

Statistical, psychometric, and research design consultant for the research group of Professor Anne Cunningham, U.C. Berkeley, August 2006 – August 2012

Statistical analyst on the Making Meaning of Reading project, led by Professor David Pearson, U.C. Berkeley, August 2008 – August 2009

Statistical consultant on the Striving Readers project, led by Professor Carolyn Hofstetter, U.C. San Diego, May – August 2007

Statistical consultant for Professor Deborah Curtis, San Francisco State University, November – December 2005

Statistical consultant for Professor Bruce Fuller, U.C. Berkeley, November – December 2004

Other Service:

Associate Editor for *Educational Measurement: Issues and Practice*, August 2012 – present

Internal evaluator for Denver Public Schools' Professional Compensation System, August 2012 – present

Organizer and chair for the symposium “Metaphors and Measurement: An invited symposium on validity” at the International Meeting of the Psychometric Society, July 10-12, 2012.

Technical advisor on the Norwegian Directorate of Education's Task Force for the Measurement of National Trends, April 2011 – April 2012.

Discussant at the session “Principled Assessment Design,” Cognition and Assessment SIG, American Educational Research Association, New Orleans, April 9-13, 2011.

Keynote speaker, workshop coordinator, and individual mentor at the Norwegian Graduate School of Science Education graduate student retreat, November 10-12, 2010.

Manuscript reviews for the American Educational Research Association annual conference (2010-2012), the National Council for Measurement in Education annual conference (2010-2012), *Cadmo*, the *International Journal of Science Education*, *Educational Assessment*, the *International Journal of Testing*, *Measurement: Interdisciplinary Research and Perspectives*, *Educational Measurement: Issues and Practice*, and *Frontiers of Quantitative Psychology*

HONORS AND FELLOWSHIPS

Normative Time Fellowship, U.C. Berkeley, 2006-2007

Summer Fellowship for Preparing Future Faculty, 2006

Advanced to Candidacy with Honors, U.C. Berkeley, 2005

Outstanding Graduate Student Instructor Award, U.C. Berkeley, 2005

University Fellowship, 2002-2003, 2004-2005, 2005-2006, and 2007-2008

Graduated with High Honors, U.C. Berkeley, 2001

Phi Beta Kappa, inducted 2001

Dean's List, U.C. Berkeley, 1997-2001