

CURRICULUM VITA

Melissa R. Beck, Ph.D.

Mailing Address

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APPOINTMENTS

Assistant Professor

Louisiana State University

August 2006 - present

Department of Psychology

National Research Council Research Associate

Naval Research Laboratory

December 2005 – August 2006

Supervisor: Greg Trafton PhD.

Research Consultant

Naval Research Laboratory

August 2005-December 2005

Supervisor: Greg Trafton PhD.

Post Doctoral Fellow

George Mason University

July 2003 – August 2005

Supervisor: Matthew S. Peterson, PhD.

EDUCATION

Kent State University (May 2001 – August 2003) -- Kent, OH

Ph.D.

Concentration: Experimental Psychology: specialty in Cognitive Psychology

Dissertation: Using and Acquiring Knowledge about the Probability of Change to Guide Visual Attention

Advisor: Daniel T. Levin, Ph.D.

Kent State University (August 1998 – May 2001) -- Kent, OH

Master of Arts

Thesis: The Roles of Intention in Change Blindness and Change Blindness Blindness.

Advisor: Daniel T. Levin, Ph.D.

Ohio University (August 1994 - June 1998) -- Athens, OH

Graduated Summa Cum Laude

Bachelors of Arts

Major: Psychology

Minor: Mathematics

Advisor: Bruce Carlson Ph.D.

EDUCATION AWARDS AND HONORS

2002 - 2003

Graduate Student Senate Research Award - \$200

1997 - 1998

ASA Straus Memorial Scholarship

1995 - 1997

Deans Scholarship

GRANTS

NRL Broad Agency Announcement: Artificial Intelligence Technologies

Title: Defining visual clutter and its effects on detecting targets in visual search tasks
Status: Funded \$20,000.00 Summer 2007

Louisiana State University Council on Research Summer Stipend 2007

Title: Maximizing the utility of visual working memory: Can strategies overcome limits during encoding and retrieval?
Status: Funded \$5000.00

Board of Regents support fund: Research Competitiveness Subprogram

Title: Maximizing the utility of visual working memory: Can attention strategies overcome limits during encoding and retrieval?
Status: Funded

Ruth L. Kirschstein NRS Awards For Individual Postdoctoral Fellows (F32)

Title: Memory during Visual Search: Encoding versus Retrieval.
Status: Not funded

Kent State University Research Fellowship

Competitive research funding
Status: Funded \$6000.00 Spring 2003

Applied Psychology Center Research Fellowship.

Title: Using and Acquiring Knowledge about the Probability of Change to Guide Visual Attention.
Status: Funded \$500.00 December 2002

RESEARCH INTERESTS

Broad: Visual memory and attention, cognition, and perception

Specific: The roles of memory, attention, and decision making in visual perception; effects of visual changes in the environment on physiological and behavioral measures of performance; using eye movements to measure attention during visual perception; top down influences on visual processing; the role of metacognitive beliefs on visual perception; cognitive modeling of visual processing; application of visual processing limits to the design of robot and computer interfaces.

RESEARCH ACTIVITY:

Publications

Beck, M.R., Peterson, M.S., & Angelone, B.A. (in press). The roles of encoding, retrieval, and awareness in change detection. *Memory and Cognition*.

Peterson, M.S., **Beck, M.R.**, & Vomela, M. (2007). The guidance of attention by retrospective and prospective memory during visual search. *Perception and Psychophysics*, 69(1), 123-135.

Beck, M. R., Levin, D.T. & Angelone, B.A. (2007) Metacognitive errors in change detection: Lab and life converge. *Consciousness and Cognition*, 16, 58-62.

Beck, M. R., Levin, D.T. & Angelone, B.A. (2007) Change blindness blindness: Beliefs about the roles of intention and scene complexity in change detection. *Consciousness and Cognition*, 16, 31-51.

Beck, M. R., Peterson, M.S., Boot, W.R., Vomela, M. & Kramer, A.K. (2006) Explicit Memory for Rejected Distractors During Visual Search. *Visual Cognition*, 14(2), 150-174.

Beck, M.R., Peterson, M.S. & Vomela, M. (2006). Memory for where, but not what, is used during visual search. *Journal of Experimental Psychology: Human Perception and Performance*, 32(2), 235-250.

Beck, M. R., Angelone, B.A., & Levin, D. T. (2004). Knowledge about the probability of change affects change detection performance. *Journal of Experimental Psychology: Human Perception and Performance*, 30(4), 778-791.

Levin, D. T. & **Beck, M. R.** (2004). Thinking about seeing: Spanning the differences between metacognitive failure and success. In Daniel Levin (Ed) Thinking about seeing: Visual metacognition in adults and children. (pp. 121 – 144). Cambridge MA: MIT Press.

Beck, M. R. & Levin, D. T. (2003). The role of representational volatility in recognizing pre- and postchange objects. *Perception and Psychophysics*, 65(3), 458-468.

Levin, D.T., Drivdahl, S., Momen, N, **Beck, M.** (2002). False predictions about the detectability of visual changes: The role of beliefs about attention, memory, and the continuity of attended objects in causing change blindness blindness. *Consciousness and Cognition*, 11, 507-527.

Zaragoza, M. S., Payment, K. E., Ackil, J.K., Drivdahl, S. B., & **Beck, M. R.** (2001). Interviewing witnesses: Forced confabulation and confirmatory feedback increase false memories. *Psychological Science*, 12(6), 473-477.

Publications Under Review or In Preparation

Peterson, M.S., Beck, M.R. & Wong, J. H. (under review). Executive control is required for efficient visual search.

Levin, D.T., Angelone, B.A., & Beck, M.R. (under review). Visual search for rare targets: Distracter-tuning as a mechanism for learning from repeated failed searches

Beck, M.R. & Peterson, M.S. (under review). Identification of distractors during visual search does not guarantee explicit memory

Beck, M.R., & Trafton, J.G. (under review). Global layout during visual search: The effects of inter-item spatial consistency on search efficiency.

Beck, M. R., Angelone, B.A., Levin, D.T., Peterson, M.S., & Varakin, A. (in prep) Selective Attention During Change Detection Leads to Implicit Learning for Probable Changes.

Beck, M.R. (in prep). The capacity of encoding and retrieval during change detection.

Presentations and Published Abstracts

Angelone, B.A., Beck, M.R., Amante, K., Sikorski, K., & Klimas, D. (2007, May) The effects of spatial and object working memory on change detection using the flicker paradigm. Poster to be presented at the Vision Sciences Society conference, Sarasota, FL.

Beck, M.R. & Trafton, J.G. (2007, May) Local Spatial Layout Consistency affects Strategies but not Memory during Visual Search. Poster to be presented at the Vision Sciences Society conference, Sarasota, FL.

Beck, M.R. & Peterson, M.S. (November, 2006). Identification of distractors during visual search does not guarantee explicit memory, Poster presented at the Object Perception, Attention & Memory conference in Huston, TX.

Angelone, B.A., Beck, M.R., Amante, K., Sikorski, K.E., & Materna, A.A. (May, 2006). Visuospatial and object working memory in naturalistic scene change detection. Poster presented at the Vision Sciences Society conference, Sarasota, FL.

Peterson, M.S., Beck, M.R., & Wong, J. (May, 2006). Effects of Executive Functioning on Visual Search. Talk given at the Vision Sciences Society conference, Sarasota, FL.

Beck, M.R., Angelone, B.A., Levin, D.T., Peterson, M.S., & Varakin, D. A. (2006, May) Implicit learning of base rate information in change detection occurs for location but not identity. Poster presented at the Vision Sciences Society conference, Sarasota, FL.

Peterson, M.S., Beck, M.R., Boot, W.R., Vomela, M. & Kramer, A.F. (2005, November). Distractor location, but not identity, is remembered during visual search. Talk given at Psychonomics, Toronto, Canada.

Beck, M.R., Peterson, M.S., & Angelone, B.A. (2005, May). The roles of attention, memory, comparison failures, and decision making in top-down influences on change detection. Talk given at the Vision Sciences Society conference, Sarasota, FL.

Angelone, B.A., Beck, M.R., & Levin, D.T. (2005, May). Incidental change detection and working memory load in a dual-task paradigm. Poster presented at the Vision Sciences Society conference, Sarasota, FL.

Peterson, M.S., Beck, M.R., Boot, W.R., Vomela, M. & Kramer, A.F. (2005, May). Little is remembered about rejected distractors in visual search. Poster presented at the Vision Sciences Society conference, Sarasota, FL.

Peterson, M.S., Beck, M.R., & Vomela, M. (2004, May). The guidance of attention by retrospective and prospective memory during visual search. Talk given at the Vision Sciences Society conference, Sarasota, FL.

Beck, M.R., Peterson, M.S. & Vomela, M. (2004, May). Where but not what is remembered during visual search. Talk given at the Vision Sciences Society conference, Sarasota, FL.

Beck, M.R., & Levin, D.T. (2003, May). The guidance of visual attention: Using and acquiring knowledge about the probability of change. Poster presented at the Vision Sciences Society conference, Sarasota, FL.

Levin, D.T. & Beck, M.R. (2002, November). Intentional theory of mind combined with mischaracterizations of visual attention produce drastic errors of visual metacognition in adults. Talk given at Psychonomics, Kansas City, Missouri.

Beck, M.R., & Levin, D.T. (2002, May). The role of object stability in change blindness. Poster presented at the Vision Sciences Society conference, Sarasota, FL.

Beck, M. R., & Levin, D. T. (2001, May). The role of beliefs about intention in producing change blindness. Poster sessions presented at the Vision Sciences annual meeting, Sarasota, Florida.

Levin, D. T. & Beck, M. R. (2000, November). Change blindness: The role of beliefs about intention. Poster session presented at Psychonomics, New Orleans, Louisiana.

Beck, M. R., & Levin, D. T. (2000, May) Recognizing pre- and post-change objects: The role of representational volatility in change detection. Poster sessions presented at the ARVO annual meeting, Fort Lauderdale, Florida.

Carlson, B. W., Friel, S. A., & Beck, M. R. (1999, June). Accessibility of verbal anchors affects numerical estimation. Poster session presented to the annual meeting of the American Psychological Society, Denver, CO.

Beck, M. R., & Carlson, B. W. (1998, May). Anchoring effects in numerical estimation with verbal anchors. Poster presented at the Annual Meeting of the American Psychological Society, Washington, DC.

Beck, M. R., Jokinen, J. D., & Carlson, B. W. (1997, May). Anchoring and adjustment with verbal anchors: The role of familiarity. Poster presented at the Annual Meeting of the American Psychological Society, Washington, DC.

TEACHING EXPERIENCE

Eye Movements and Attention 2004 – 2005 (3 semesters)	Reading Group Leader/Organizer George Mason University. Fairfax, VA.
Sensation & Perception 2002 2006 – 2007 (2 semesters)	Course Instructor Kent State University. Kent, OH. Louisiana State University, Baton Rouge, LA
Quantitative Methods I 2001 – 2002 (4 semesters)	Course Instructor Kent State University. Kent, OH.
Research Methods Spring 2001	Course Instructor Kent State University. Kent, OH.
Writing in Psychology 2001 – 2002 (2 semesters)	Course Instructor Kent State University. Kent, OH.

STUDENT ADVISING EXPERIENCE

Undergraduate Honors Thesis Committee Erin Smitherman Spring 2007 – Present	Louisiana State University Chair
Sonia Bellafiore Ferraro Fall 2005	George Mason University
Graduate Student Research Advising Ben Martin Spring 2007 – Present	Louisiana State University Masters Thesis Committee Member
Jason Wong 2004 – 2005	George Mason University
Miroslava Vomela 2003 – 2005	George Mason University

AD HOC REVIEWER

Applied Cognitive Psychology
Cognitive Science
Experimental Aging Research
Experimental Psychology
Journal of Experimental Psychology: Human Perception and Performance
Journal of Vision

Psychological Research

Psychonomic Bulletin and Review

Perception and Psychophysics

OTHER PROFESSIONAL ACTIVITIES/MEMBERSHIPS:

Psychonomic Society - Associate

Vision Sciences Society – Member